

AMERICAN ECONOMIC POWER: REDEFINING NATIONAL SECURITY FOR THE 1990'S

HEARINGS BEFORE THE JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES ONE HUNDRED FIRST CONGRESS SECOND SESSION

PART 2

MAY 2 AND 8, AND JUNE 6, 1990

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AMERICAN ECONOMIC POWER: REDEFINING NATIONAL SECURITY FOR THE 1990'S

WEDNESDAY, MAY 2, 1990

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 2:04 p.m., in room B-352, Rayburn House Office Building, Hon. Stephen J. Solarz (member of the committee) presiding

Present: Representatives Solarz and Scheuer.

Also present: William Buechner and Stephen Baldwin, professional staff members.

OPENING STATEMENT OF REPRESENTATIVE SOLARZ, PRESIDING

Representative SOLARZ: The committee will come to order.

This afternoon, the Joint Economic Committee resumes its hearings into the requirements of American national security and its linkages to the economy in a post-cold-war era.

Future historians may well identify the 1990's as a transitional period between two historic epochs, the first characterized by global confrontation and the cold war, the second by more or less peaceful competition and open cooperation among the superpowers and the world's other industrial nations.

What the new age holds in store for us remains, of course, to be seen. But it does seem clear that the cold war has come to an end, and we have some reason to hope that more peaceful trends will prevail in the world.

Meanwhile, the nature and composition of our national security requirements are undergoing a major transformation. Clearly, economic factors weigh more heavily than they used to, although there has always been an economic dimension in the broad definition of national security. The accelerating pace of technological change and the challenge from abroad to our once unquestioned leadership, technologically and otherwise, represent just two of many developments that require us to devote more attention and perhaps more national resources to the economic side of the security equation.

There are other changes as well which suggest that the threats to our national security and well-being are increasingly social and economic: our competitiveness problem, our large international financial and trade imbalances, the rise of Japan as an economic superpower, the foreign acquisition of U.S. high-tech business firms, the threats to the global environment, the failure of the U.S. edu-

cation system to prepare large numbers of students for successful participation in a high-technology economy, and the growing mismatch of jobs and skills.

The need to spend less on defense as the cold war recedes presents us with a unique opportunity to devote more of our Nation's resources in the years ahead to strengthening our domestic economic security. Today's hearing will explore the contributions of education and training to our economic security and how we can make the best use of these newly available budget resources to improve the American systems of education and job training.

This afternoon the Joint Economic Committee is very pleased to welcome as our opening witnesses: Mr. Ted Sanders, the Under Secretary of the U.S. Department of Education; and Mr. Roberts Jones, the Assistant Secretary for Employment and Training Administration in the U.S. Department of Labor.

Following our first panel, we will have a second panel of four private witnesses: Mr. Anthony Carnevale, vice president and chief economist of the American Society for Training and Development; Ms. Shirley McBay, the dean for student affairs and project director, Quality Education for Minorities Project at MIT; Mr. Arnold Packer, senior research fellow at the Hudson Institute; and Ms. Margaret Simms, deputy director for research at the Joint Center for Political and Economic Studies.

Before we begin, I notice that my good friend and colleague, Congressman Scheuer, from New York has arrived. Jim, do you have any observations that you want to make?

OPENING STATEMENT OF REPRESENTATIVE SCHEUER

Representative SCHEUER. Thank you, Congressman Solarz.

I am delighted that you are chairing this hearing, Congressman, and I congratulate you for your initiative in bringing this hearing together at this point.

I am chairman of the Subcommittee on Health and Education of the Joint Economic Committee, and I conducted 9 days of hearings on what we have to do for our education system in support of the kids to produce a work force that is competent, that is literate, that is numerate, a work force that can process information, and a work force that is competitive. It was a fascinating hearing, and several of the witnesses that we are hearing today testified at that hearing a year and a half ago.

We need an infusion of money into our education system, but money alone will not do the job. We need new ideas, and we need new approaches to educating our kids, and sometimes we need both, for example, in the case of the Head Start program. I am sponsor of a bill for full funding of Head Start with Congressman Dale Kildee who is chairman of that relevant authorizing committee. And we work up the full funding in that by 1994.

To me it is a disgrace that our society, while it is putting \$5.5 billion into the B-2 bomber, which has only one purpose in life which is to penetrate the Soviet Union with as little notice as possible and drop a load of bombs, while we are funding the B-2 bomber, while we are funding the star wars for \$4.5 billion, while we are funding the business of moving missiles around on railroad

cars, we are telling five kids out of six who are at urgent education risk that we are not going to give them a Head Start program because we cannot afford \$5,000 a year in that third, fourth, and fifth year. And we are almost certainly consigning them to education failure for our unwillingness to invest the bucks and the talent to help those kids become learning ready when they come to school.

Now, we had a hearing just last week of the Joint Economic Committee on Russia's economic position right now, and we had three Russian experts, two of them actual Russians, one a member of their parliament. And they testified to us that Russia was in the beginning of a free-fall depression, that the bottom was dropping out of the Russian economy, that there was significant danger of widespread famine, significant danger of widespread violent consumer rioting protesting the absence of the basic necessities of life.

Mr. Gorbachev is faced with an economy that is literally coming apart at the seams. He sees his ethnic partners rushing not walking to the nearest exit—the countries of Latvia, Lithuania, and Estonia. He sees his Eastern bloc opting for the nearest exit, opting for democracy. Even in the Soviet Union, he is hearing significant rumbles along the same lines from the Ukraine. With an economy that is disintegrating, with the very real possibility of starvation in the Soviet Union, consumer riots, the proposition that Mr. Gorbachev and his generals are about to wage a massive nuclear attack on our country is so preposterous it boggles the mind.

Of course, we will continue to have regional problems. No doubt about that, but that is a different order of magnitude of defense needs than the one we are addressing ourselves to when we are seriously looking at \$300 billion military budget. It is bizarre. And to the extent that we are denying adequate and urgently needed investments in education for one thing, let alone health care where we deny 31 million Americans access, fail to provide senior citizens with long-term care, with catastrophic care, where we ignore our infrastructure needs of roads and bridges and tunnels and sewer systems, water systems that are falling apart, for us to be allocating \$300 billion a year to and ignoring above all our education to me is offensive and unacceptable.

So, I welcome this hearing, and I look forward to hearing from all of you.

Representative SOLARZ. Mr. Sanders, please proceed.

**STATEMENT OF TED SANDERS, UNDER SECRETARY, U.S.
DEPARTMENT OF EDUCATION**

Mr. SANDERS. Thank you, Congressman Solarz, members of the committee. Good afternoon. I am very pleased to have the opportunity to be here this afternoon and talk with you about the current state of American education and its relevance to the Nation's economy.

I have a fully prepared statement that we are submitting to you for the record. If I might, I would like to summarize what I have tried to tell you in that prepared statement.

Also, I have been working on several questions that you had posed earlier, and would be happy to transmit a full statement of response to each of those questions to you also.

What I would like to do this afternoon is to suggest to you at least answers to four questions that Americans are asking about their educational system and its relationship to the economy. The first of those questions is, what is the current state of American education in terms of our national aspirations as a free society? The second, how do we compare with other industrialized nations, particularly those with whom we are going to be competing in the future? The third, what is essentially wrong with the education system currently in place, and last, what can we do to correct our inadequacies?

Everyone knows that the American educational system is not meeting the needs and aspirations of our society. Let me suggest to you that we have failed in at least three significant ways. First of all, we have not yet achieved the ideal of a high school education for every American, something that we believe is essential to a vital and a creative democratic society. In fact, currently more than one out of every four of our students will drop out of school before they graduate.

Likewise, we have not yet achieved 100 percent literacy, another imperative for any modern democracy. According to our best estimates, some one in five American adults is functionally illiterate today. And in these areas we have particularly failed blacks, Hispanics, and other minorities.

More to the point of this committee's purpose, our economy is suffering severely from the inadequacies of our education system. Particularly affected is our ability to compete with other industrialized nations in a global marketplace. Consider the following facts and the story that they tell.

First of all, three facts relevant to the achievement of American students in the field of mathematics and science. In all comparisons of international math and science test scores, American students finish either last or next to last. In fact, from recent national assessment of educational progress data, only 50 percent of the American high school students can do junior school mathematics. And, in fact, out of the 1986 NAEP study, we found that some 25 percent of the 13-year-olds could not add, subtract, multiply, or divide using whole numbers, and nearly half of the 17-year-olds lacked an understanding of moderately complex mathematical procedures.

We have a second set of three examples about what is happening in American business as a result of our educational inadequacies. Recently, Motorola found that some 80 percent of all the applicants that they screen nationally failed an entry-level exam that required no more than a seventh grade English and a fifth grade mathematics level.

Also, the New York Telephone Co. recently received some 117,000 applications when several new positions opened up. Only 2,100 of those applicants could qualify for that employment. I would add that this employment was for a mail clerk's position.

American business, as we know, is having to spend somewhere between \$25 and \$35 billion a year to bring new employees up to the standards of our high school graduates.

Finally, there is a third set of three facts that helped to define the Nation's economic plight. You have already mentioned, Con-

gressman Solarz, in your opening remarks information about our trade deficit.

We also know the status of our national debt, but there is another statistic that translates educational deficiency into economic disaster. In fact, if you look at the lost lifetime earnings of each of our recent classes of dropouts, we find that they cost our Nation some \$228 billion across their lifetime in lost earnings. That is 10 times what the U.S. Department of Education spends annually to improve the performance of our schools.

If things have been bad in the last few years, they could even be worse by the year 2000. Between 1983 and 1988, some 40 percent of all the new jobs that were created in our economy were either managerial or professional. That is the Department of Labor's highest skill category. By the year 2000, some half of all new jobs will require some form of postsecondary education for entry. Recent Census Bureau study reports that the number of people in the 20-to-29-age bracket is shrinking so that there will be a decrease in the younger work force from 41 million in 1980 to 34 million in the year 2000. That means that we are going to be reaching even deeper into an already underskilled work force.

Precisely what is wrong with our educational system? I would like to suggest at least some of the problems to you. At a time when freedom and democracy are breaking out all over the world, our school system in America is far too bureaucratic and authoritarian. We have too many Federal and State regulations. We allocate funds to schools and to school districts and then place on them so many restrictions that they cannot freely experiment with creating solutions to current problems. I would like to give you one real example out of the State of Washington.

A few years ago, a woman by the name of La Vaun Dennett was appointed principal of an inner-city elementary school in the city of Seattle. That school served primarily minority students in the community. La Vaun Dennett, after being appointed principal, looked at the data about her school, noted that it had serious problems, called her faculty back together 2 weeks before the opening of school, a violation, if you please, even of the union contract.

Those teachers came to school. They spent 2 weeks with the principal examining not only the problem, but rethinking how it is that they would approach education when school opened that September. They totally restructured the school program. They focused on math and reading instruction in the morning. They decided that class sizes were too large. Since they could not create new resources, they redirected the other adults that were working in their school. They reduced class size so that with some students, those students experienced no more than five other students in their class with a teacher.

What happened? La Vaun Dennett found herself, first of all, in trouble with her peers. Other principals in the district did not like what it was that she was doing. They brought pressure on her.

The district did not like what she was doing in spite of the fact that achievement improved dramatically even in the first year. Many students who had been previously way below grade level had come up to grade level and beyond.

Finally, La Vaun Dennett found herself in trouble with us at the U.S. Department of Education because she had misused a chapter 1 staff member in that school. She misused a resource room teacher funded from Public Law 94-142. And she found herself with a \$100,000 audit exception from us.

Representative SCHEUER. A \$100,000 what?

Mr. SANDERS. Audit exception.

Representative SCHEUER. Audit exception?

Mr. SANDERS. Yes, because of the fact that she had technically misused those funds.

Representative SCHEUER. There was no question of personal dishonesty or anything?

Mr. SANDERS. No. The people were there. They were used in working with children in small groups, but they were not used in accordance with the rules in spite of the fact that those children's performance did, indeed, increase.

La Vaun Dennett is no longer principal in that school. She has gone to graduate school at Harvard.

It seems that La Vaun Dennett is the standard instead of the exception. We tend to punish those people who are willing to take the risk and be entrepreneurial and solve the problems that we face. On the other hand, we reward oftentimes the status quo even when it is not working.

The second thing, we have very little input or commitment from parents today. The very best research that we have shows that the attitude of parents toward education is an almost infallible indicator of a child's success in school. In fact, that is even a stronger indicator than the economic background of the parent or the parent's educational level. We all agree that the parents are the child's first and best teacher and that what a child does in the first 3 years of his or her life is particularly crucial to the long-term learning of the child.

Clearly, some of the problems that we faced are the result of low levels of parental involvement in the education of American school-children. We must find ways to encourage parents to become more interested and more actively engaged with the process of education of their children. In fact, Congressman Solarz and members of the committee, everyone has expected too little of our young children, not only parents, but teachers and our community at large and even young children themselves.

Hank Levin's study at Stanford University has indicated very clearly to us that minority children from economically deprived neighborhoods can and will perform as well as children from the most affluent neighborhoods, provided such work is expected of them.

In fact, as a result of Mr. Levin's research and similar experiences, a new axiom has appeared in the educational community, and that axiom is students will live up to our expectations of them. If we expect little, we are going to get little. If we expect a lot, we will get a lot.

Also, American educators have not been held accountable for results. We have held them accountable for process. In fact, parents and other members of the community have little way of knowing how well their local school or school system is performing. And

consequently, we all seem to be satisfied with our own school and assume that it is the other schools that are failing. The Gallup poll over the last couple years has been very, very clear with this. We as parents tend to judge schools generally in a very poor light. But when we talk about the school where our children attend, we judge them much better.

I had a real experience or two as State superintendent in Illinois. I left that position just a year ago. Early in my tenure I became concerned about the plight of small high schools in our State and what it was that they were not able to offer our students. I proposed legislation that would deal with that problem. It was not very popular. On a plane flight late one Friday evening back to Springfield coming through St. Louis, I boarded a little TWA metroliner and had barely buckled my seat belt when the woman behind me said you're Ted Sanders, aren't you. And I knew by the tone of her voice that I probably should have disavowed even knowing the fellow, but I owned up. And she began talking to me. No, she began talking at me. We were not even airborne when she had the rest of the plane engaged in the conversation. I was not sure I was going to make it to Springfield that evening.

She was not very happy with what it was I was saying about small high schools. She told me that the small high school where her daughter was about to graduate that spring was an excellent school, and that we should be leaving her school alone. I asked her eventually, when she cooled off just a little bit, if we could really engage in a dialogue concerning that school and what prompted her to believe in its excellence? Then she told me her daughter was going to the University of Illinois that next fall. The course that she was to pursue required a background in chemistry. Her high school offered an outstanding course in chemistry. That marked the school for excellence in her eyes.

That next Monday morning, I asked my staff to find out about that chemistry class, and here is what they found. It was a chemistry class offered in a regular classroom without a laboratory because they did not have laboratory facilities. It was taught out of a textbook that was 10 years old, and it was taught by a teacher who had only 3 undergraduate hours in chemistry to prepare him to teach that class. And yet, it marked the excellence for that school. I suspect that mother and I know that young woman was in for quite a surprise that fall when she enrolled at the University of Illinois.

Oftentimes, parents simply do not have the kind of information by which to judge the quality of the educational experience that their children are having. We need to provide them with the information in new and more effective ways.

Finally, Congressman Solarz, we must ask ourselves what it is that we can do to reform our educational system to meet the economic challenges of the next decade. I would suggest to you this afternoon that first we must reform the way in which we manage our schools. We have to place more authority in the hands of principals and teachers. I have worked in my career at every level of the educational system, and I am more and more convinced that the solutions to our most perplexing problems will come from the people who are fighting in the trenches rather than from the gen-

erals who stick pins in a map back at headquarters. We now say that we are going to demand reforms from our schools. Then we ought to at least give them the freedom to try new solutions since the old ones are not working.

Second, we have to bring parents and other members of the community back into our schools so that they can once again become an integral part of the system. One of the best ways that I believe we can do that is providing a wider range of choices among the types of schools that students are allowed to attend. The nationwide success of magnet schools is the very best testimony to the efficacy of choice involving parents, students, and teachers.

Third, we need to introduce rigor and depth into the curriculum of our public schools and then demand more of our students than the current system asks. Our students can compete with Germany and Japan as they once did. They will fulfill our highest expectations for them, no more and no less.

Finally, we must improve the knowledge and the competence of our teaching force. I believe that alternative routes to certification provide one of the best avenues for attracting highly trained people into the classroom, particularly in the field of math and science where we have our greatest need. In places like New Jersey, programs of this type have already brought even more minorities into the teaching force than have traditional teacher training programs.

We should not fall into despair because of the record that exists today of our shortcomings. We have come a long way in recent months. At least we are finally acknowledging that we have severe problems. The President and the Governors have now articulated a set of national goals that provide a vision for us. And now together we are in the process of deciding how best to implement those goals. If our challenges are formidable, so are our resources as a great and free people.

I will be happy to respond to any questions that you have, Congressman Solarz.

[The prepared statement of Mr. Sanders follows:]

PREPARED STATEMENT OF TED SANDERS

Good afternoon, Mr. Chairman and members of the Committee. I am pleased to have the opportunity to talk to you about the vital interdependence of America's economy and its education system.

The next decade will present some unique challenges for Americans, in which education and economic well-being will be inextricably linked. As we take steps to preserve America's standing in the world economy, the President and the nation's Governors have set national education goals. Our success or failure in achieving these goals will have a profound impact on our ability to remain competitive in an increasingly global economy.

A productive education system is the foundation of a productive economy. Business and industry depend on our schools and postsecondary institutions to educate the people who form America's workforce. While in the past it was considered

sufficient for the majority of Americans to leave school with a modicum of basic skills, today our economy needs workers who are more than just literate, responsible men and women. We need workers who are able to solve problems and to think creatively. We need workers who can adapt to changing conditions and can benefit from on-the-job technical training. The number of jobs available for low-skilled and unskilled workers is shrinking, and the need for workers with a high-quality education is growing, particularly as we face increasing economic competition from other nations.

Unfortunately, our education system is woefully underproductive. Employers express almost universal concern that the skills of entry-level workers in reading, writing, mathematics and communication are deficient. Despite the fact that aggregate annual spending for elementary and secondary education rose \$44 billion between 1980 and 1988 (in constant 1989 dollars), scores on national reading and mathematics tests today are virtually unchanged from their 1980 levels.

Not only are our students unprepared for the economic realities of the 21st century, but a frighteningly large proportion of them are not even prepared for the 19th century! The 1986 National Assessment of Educational Progress (NAEP) mathematics assessment found that over 25 percent of 13-year-olds could not add, subtract, multiply, and divide using whole numbers. Moreover,

nearly half of 17-year-olds lacked an understanding of moderately complex mathematical procedures.

I'm sure you are also aware of the disappointing performance of our students in other important subject areas. In science, NAEP found that while 81 percent of American 17-year-olds show an understanding of basic information from the life and physical sciences, fewer than half understand the design of experiments, or show any degree of specialized knowledge across the disciplines of science. The NAEP report concludes that "more than half of the nation's 17-year-olds appear to be inadequately prepared either to perform competently jobs that require technical skills or to benefit substantially from specialized on-the-job training."

The gaps in our students' knowledge extend to their understanding of the world around them and the events that have shaped this world. A 1988 Gallup study of 18 to 24-year olds in nine countries found that young Americans ranked last in their knowledge of geography. Perhaps most disturbing, the United States was the only country whose young adults scored below its older adults. Moreover, this gap is not confined to knowledge of faraway places. According to the most recent NAEP U.S. history test, more than half of 12th graders do not understand basic terms and relationships from U.S. history, and only five percent can interpret historical information and ideas, although the

great majority can identify a number of isolated people and events from our nation's past.

These disappointing results are all the more disturbing when we compare ourselves to other nations. On test after test, American students consistently rank at or near the bottom in mathematics and science, areas that are very important to technological and economic development. For example, in a 1989 study of 13-year-olds in 12 different student populations around the world, the U.S. was dead last in mathematics, and only slightly better in science.

Some claim that these tests unfairly compare our system to the so-called elitist systems of other countries, but in fact, a large proportion of students in most other industrialized countries go on to secondary education, just as in the United States. Indeed, compared to other nations, a lower proportion of our students study mathematics and science. Presumably, then, mathematics and science students in other countries represent a broader spectrum of ability than their American counterparts. Yet students from these countries consistently outperform us, despite the fact that we spend more per pupil than most other developed countries.

Because of these trends, too many students entering postsecondary education lack the verbal and quantitative skills required to

perform college-level work. To compensate for the poor preparation of their students, colleges are now devoting substantial resources to remediation -- nine out of ten schools now provide remedial courses in reading, writing and mathematics for one-third of their students. This should not be necessary. Colleges should be teaching college-level material, not high school material.

In addition, declines in college enrollment and degrees in the areas of science, math and engineering are a danger signal to our nation, and could impair teaching, research, and industry in future years. Science, math, and engineering are among the very areas most likely to enhance our ability to create, develop, and market new products both at home and abroad.

Yet economic competitiveness isn't just about technical knowledge, innovation, and making better products. It is also about developing markets for those products, and about negotiating trade agreements and international business partnerships. The most basic requirement for these undertakings is the ability to communicate, and a knowledge of foreign languages and cultures has become an indispensable business tool.

Here again, other nations have the edge. In France, one foreign language is required from sixth grade through high school, and a

second language is required beginning in ninth grade. In Japan, more than 80 percent of students take a foreign language, and two foreign languages are required for graduation from university. How will our nation be able to compete with Japan in the future, if, while Japanese students take the time and effort to learn English and American culture, many of our students have trouble learning their own language or history. In West Germany, Sweden, India and Switzerland at least one foreign language is required. Students begin their studies early, and many continue for five, six, and even (in the case of Sweden) nine years. In many countries, students study a second language, even though it is not required. Again, compare this with the United States, where only one in five high school graduates takes more than two years of even one foreign language, and less than one in ten takes four years of instruction in a foreign language. Over half of our college students take no foreign language during their undergraduate years.

Clearly, if we hope to maintain the level of economic health and strength that we have long enjoyed, and if we wish to remain competitive on an international basis, we must continue to pursue fundamental reform of our education system, expanding the application of methods that work and curtailing those which have failed to produce results.

Yet there are other reasons besides our national economic needs for pursuing this course. Our education system is the foundation of our democracy. We depend on our education system to prepare men and women to be informed, involved citizens. If the education we provide is poor, the level and quality of Americans' participation in our democratic system will also be poor.

If our democracy is to continue to function effectively, we must achieve universal literacy, which at present continues to be only a dream. We must also achieve universal education through high school. Our dropout rate remains far too high, particularly for Blacks, Hispanics, and Native Americans. We also have a long way to go to ensure universal literacy and high school completion among Americans who are poor. By some estimates, one-third of our school population in the year 2000 will consist of students that we would consider to be at-risk.

In addition to the positive returns to education for the economy and society, a high-quality education contributes to an individual's intellectual development, personal fulfillment, and economic success. Indeed, the economic returns for individuals from education are very clear.

A recent study by Frank Levy found, for example, that among 25 to 34-year old men, college graduates earn 50 percent more than high school graduates. This premium for a college education has

increased significantly in recent years, because the real wages of those with only a high school diploma have declined as the relatively high-paying jobs in manufacturing, which high school graduates used to find plentiful, have been replaced with lower-paying jobs in the service sector. As you know, this trend is expected to continue; U.S. manufacturing will represent an even smaller share of the U.S. economy in the year 2000 than it does today.

Moreover, the new jobs in service industries will demand much higher skill levels than the service jobs of today. Those who cannot read, follow directions, and use mathematics will be unable to find jobs. As a result, as the Workforce 2000 study tells us, we can expect to find less joblessness among the most educationally advantaged among us, but more unemployment among the least-skilled. The challenge to our education system could not be more clear.

To the question, "How well are we doing?" we must answer, not nearly well enough. This morning the Secretary released the 1990 State Education Performance Chart, better known as the Wall Chart. It seems that, once again, our achievements are nothing to boast about. True, we have seen no serious overall declines in test scores, high school graduation rates, or other indicators of educational achievement, but we also have seen no overall gains. There are, of course, some bright spots -- individual

states that are doing very well, and some encouraging signs of increased achievement by minorities, despite a persistent gap between their performance and that of other students. But we clearly have a very long way to go.

How did we get ourselves into this situation? For one thing, our education system is overmanaged from the top -- and I don't just mean from the federal level, although I am well aware that there are things that we can do to reduce burdensome regulations and to encourage reform. I mean that instead of having most decisions about education made where they belong -- at the school building and district level -- too often teachers and principals have extensive requirements imposed on them from the outside, eroding their ability to manage their classrooms and schools effectively. I submit to you that if any business were run the way our education system is run, it would be bankrupt before the year was out.

At the same time, there is very little input from those who, along with students, have the most at stake in the quality of our education system -- parents. Even when parental involvement is sought, too often it is seen in terms of the traditional role of parents as fund-raisers, field trip monitors, and spectators at school events. Some schools and school districts go so far as to be hostile towards parental involvement that goes beyond these ordinary activities. Real participation by parents in planning,

decision-making, and evaluation of performance is all too rare. Only by offering parents the opportunity to participate actively in their children's schooling, will we foster a genuine commitment on their part to ensuring that schools succeed.

We also suffer because our schools have low expectations for many of our children. Students are not asked to try very hard; often they are not encouraged to take challenging courses, but just to get by with minimum requirements. Particularly if they are poor or members of minority groups, children are given the message that success in school depends on some kind of magical innate ability, and that even if they do try they probably will not succeed. Contrast this with other countries, which stress the importance of effort, and tell their students that the key to success is hard work -- nothing magical about that -- and that all students are expected to work hard.

Another problem with our system is that it includes little accountability for results. In most schools and school systems, no one except the individual student has anything to lose if a poor quality education is provided, and no one at all is likely to be recognized or rewarded if outstanding educational results are achieved. We have got to change that.

What can we do? At the education summit last September, the President and the nation's Governors took the unprecedented step

of setting national education goals. For the first time, the nation is now focusing on the outcomes of education rather than inputs. The President and the Governors have committed themselves to ensuring, by the year 2000: that children will be ready to learn when they enter school; that 90 percent of students will earn a high school diploma; that students will demonstrate mastery of challenging subject matter in mathematics and science, and the U.S. will rank first on international tests; that every adult American will be fully literate; and that children will attend safe, drug-free schools.

President Bush submitted to Congress over a year ago, the "Educational Excellence Act" (H.R. 1675) which was his first step in fulfilling his pledge to provide national leadership in education. Each of the seven proposals in H.R. 1675 supports achievement of one or more of the national education goals. While the Senate has overwhelmingly approved a modified version of the President's bill, we are still awaiting House action on these important education reforms.

Some have questioned the feasibility of achieving these national education goals. I disagree with the skeptics who believe that it cannot be done. Moreover, I believe we know what we need to do to accomplish these goals.

First, and most importantly, we have got to reform the day-to-day methods of school operation by placing more authority and responsibility at the school level. We also need to renew community and family commitment and responsibility by bringing parents into local school governance and by providing a wide range of choice in the character and type of schools students are able to attend. The President's Magnet Schools of Excellence proposal in H.R. 1675 would help bring this renewal about. Furthermore, we need to evaluate progress by measuring and publicizing the outcomes of education, not its processes.

We must also raise expectations for our students. We can begin to do this by providing a more challenging, intense, and rigorous curriculum. Teachers, parents, and administrators must be aware of the importance of high expectations and must look for opportunities to demonstrate our belief that all students can succeed. We need to improve the competence and character of the teaching force by careful attention to training, an area where institutions of higher education need to accept more responsibility, and by diligence in recruiting more minorities into the field. The President has proposed in H.R. 1675 and some States have already demonstrated that alternative certification is a strategy that works in raising the quality and the quantity of educators, including an increasing number of minorities. In particular, the opportunity to attract into teaching individuals with substantive training and experience in mathematics and

science will enhance our ability to attain the goal that United States students will be first in the world in science and mathematics achievement.

We must improve the link between the education system and the world of work, so that students can visualize and strive for concrete post-school goals. Our system can be contrasted with the apprenticeship system of West Germany, which involves close cooperation between employers and schools in educating and training young people. West German youths leave school with a thorough grounding in the skills they need, hands-on experience in applying these skills, and a clear avenue to immediate and meaningful employment. Further, this apprenticeship system is for all youth, not just the disadvantaged.

For American youths who leave high school with no college plans, a place in the workforce is a possibility, not a sure thing. Even some of those who pursue technical training are not prepared for work. While there are many trade and technical schools that provide their students with high-quality training, some offer students very little real education.

For those who pursue further education, our postsecondary system -- even with its problems -- is the best in the world. Its unsurpassed variety and quality has much to teach us about

education at all levels. In contrast to elementary and secondary education, today's postsecondary system offers students many choices -- some 3,500 colleges and universities and 8,500 non-collegiate schools. Universities, colleges, junior colleges, community colleges, trade schools, and professional schools educate our future leaders -- among them, teachers, managers, and scientists. In addition, they provide the foundation of basic research and applied technology which support our economic productivity and international competitiveness.

Armed with what we have learned about education in this country and abroad, we must join forces to ensure that our national education goals, articulated by the President and the nation's governors, permeate the entire education system. We all must take responsibility as individuals to do what we can to ensure that they are carried out.

Educators at all levels must examine the goals to see how they can further our achievement in these areas. States, districts, and schools should examine their own accomplishments, and commit themselves to expanding upon them. The Federal role in this effort will primarily be four-fold: we will continue to target our resources on disadvantaged students; we will seek reforms in federal programs and activities to meet the changing demands; we will work to develop better indicators of educational performance; and, we will encourage the development of increased

flexibility in education in exchange for increased accountability. If we are to achieve our national goals, we must all work together, and we must start with the belief that we can succeed in improving American education, so that we are once again the envy of the world.

Thank you. I will now be happy to respond to any questions you may have.

Representative SOLARZ. Thank you.
Mr. Jones, please proceed.

**STATEMENT OF ROBERTS T. JONES, ASSISTANT SECRETARY FOR
EMPLOYMENT AND TRAINING, U.S. DEPARTMENT OF LABOR**

Mr. JONES. Thank you, Congressman Solarz. I am pleased to be here with Under Secretary Sanders in that today, perhaps more than ever, we have begun to join efforts in discussing these issues and trying to understand how to make these programs more effective. Just a few points to perhaps frame the conversation.

In 1987, we published "workforce 2000." One of the primary issues raised by that report was the projection that our economy would continue to add jobs that required higher skill levels and less jobs with lower skill levels. Since those 3 years have passed, I would point out that those projections were based on the assumption that we would add about 3.3 percent annually to that higher skill cadre. In fact, the experience in those 3 years has been about 7 percent, more than double the rate that we then projected was going to happen. The pressure that puts on the workplace and the demands for skill levels for young people coming into the system is enormous, and the demand back on the school system to respond to those levels is substantial.

Your thesis of your hearing clearly points out that the country's economic security and competitiveness requires that we invest effectively in a human resource system. As Mr. Sanders has indicated, it is now costing us approximately \$228 billion in lost earnings and foregone taxes over the lifetime of every class of dropouts that passes each year. In other terms, it suggests that there is about an \$86 billion loss in our gross national product because of that failed segment of our work force.

On a very human basis, the gap between annual income of high school dropouts and high school graduates was 31 percent in the 1960's. This increased to 59 percent in the 1980's, and can only go higher by the year 2000 and on down the road.

Clearly, upgrading the quality of the work force to ensure that we remain competitive and economically secure does not necessarily mean more government programs and dollars, but it certainly requires systemic change in how our institutions prepare our young people for the world of work. It is urgent that we respond and realign these institutions and not simply lay blame to school teachers and systems that are behind us.

I cannot overemphasize, along with Mr. Sanders, the importance of those education goals established by the President and the Governors. They are important as business and school leaders as local communities across the country begin to focus on the things that are important in changing their system. Let me step on just a bit of several specifics that we think need to be inserted into that conversation.

First and perhaps foremost, it is easy to talk structure, but one of the most difficult things we have to face today is the closure of this gap between what it takes to successfully work and meet the demands of those workplaces and what the school system is doing.

Secretary Dole recently announced the establishment of a commission headed by former Secretary of Labor Bill Brock. And, in fact, the executive director of that commission will be Mr. Arnold Packer who is here testifying to you today. The purpose of that commission is to examine the skills that are needed by today's work force, to establish what the normative levels of those kinds of skills are and how they should be measured, and to put that information in front of both school systems and business leaders to begin to assess where their systems are in response to that. It is, in fact, to bring focus to the essential American belief that young people coming through a school system and successfully participating ought to understand that they can effectively step into the workplace and be a success.

We need to establish acceptable levels of proficiency for these skills and develop criteria for measuring them and establish ways to disseminate those results to education and business. The idea is not to suggest that schools change their mission to preparing young people for employment rather than educating citizens. What we are suggesting is that the fully educated citizens must also be capable of succeeding in the workplace.

Second, we still remain the only Western industrialized country that does not have any kind of formal linkage between the school system and the work environment. A substantial part of our dropout population is leaving the process because of their lack of understanding of why that curriculum has any relevance whatsoever to what is going on in the workplace, and the lack of understanding of today's workplace and the opportunity it provides, in terms of types of work and wage steps and organizational structures along the way. It is essential that we begin to examine the options that are in front of us around the world in terms of how we tie those systems together, change the curriculum, and recognize that students learn in different ways. They can work and go to school, and they can benefit and stay in the process much longer than we have been allowing to take place.

On May 15, this month, we will convene, in partnership with the Department of Education, the first major school-to-work conference that we have ever had in this country. We will publish a substantial amount of information and, more importantly, we will proceed immediately to begin to fund some demonstration models in school districts throughout the country where business and education can come together and test ways of doing just that.

"Workforce 2000" also taught us something else. It said that the majority of training in the world of the future will take place at the workplace. We know very little about it. We have not set up credential systems. We have not established a process by which employees and employers can both benefit from that system. We are now engaged in the process. We have major efforts underway with industries that are beginning to examine exactly how one would go about doing that. It is a discussion in which there is a win-win conversation between employers and employees. And it is one in which employers will be investing more and more, both as a matter of public policy and individual need. It is an area that we now must step into. The Labor Department just a few months ago for the

first time established the Office of Work-Based Learning to begin to deal with this issue on a full-time basis.

Last, let me suggest we are also concerned about our "second chance" programs. If we are in fact, as Mr. Sanders indicates, to recalibrate what our school systems are doing and how they meet the demands of the future, it is essential that we do the same with our second chance systems. We have submitted legislation to the Congress, which is now under active consideration in both the House and Senate, to do precisely that. It is designed to set significantly higher standards in terms of how those systems prepare people—to ensure a better product.

First, for the JTPA system, and I dare say also for the JOBS welfare system and any second chance system, in this market we must be sure that we are serving those people who in fact have educational or work deficiencies that are keeping them from successfully stepping into the system.

Second, because of the experience in the Education Department and Labor Department today, we know what works. We know how to go about successfully rescuing people in these situations, and we must mandate those models. Laissez-faire approaches to program design, when billions of dollars are being spent, is simply not a productive method when we in fact know the kinds of comprehensive models that will work. Our legislation contains some prescription for how we deal with people if we are going to put them through our second chance systems and ensure that they can step forward. We must increase accountability and ensure that their basic skill level is increased as a result of those expenditures of dollars.

And last, it is insane to assume that any one system is going to do this. For the first time, the legislation says that the JTPA program must be linked and built into the school system. It must be linked and built into the welfare JOBS system that is now coming on line. Then those programs have both resources. They are going to engage in the same sets of tasks in order to prepare people. There is expertise in the school system, where there is not in these other systems, for both assessment and teaching.

Last, I would also point out that in a time like this when we have enormous demand in our labor market and great change in the needs of workers, we must also examine the U.S. Employment Service that spends about \$850 million a year and serves about 4 percent of the civilian labor force. The Secretary intends to move throughout the country, and probably submit legislation to begin a debate, like Mr. Sanders has said, which is not particularly popular. We will not be cheered and supported, but the net effect of it is we can do a whole lot better with the money we have and we are going to have to address that question.

I will close my comment at this point, Congressman Solarz.

[The prepared statement of Mr. Jones follows:]

PREPARED STATEMENT OF ROBERTS T. JONES

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to testify before you today on the role of human resources in our economic security, and how our nation's education and training systems can be improved to produce a more competitive work force.

Mr. Chairman, we published the report on Workforce 2000 in 1987. One of the primary issues raised by the report was the projection that our economy would continue to add jobs that require higher skill levels and that fewer jobs would be created that require a low level of skills. At the same time, an increasing proportion of those entering our labor force will not be prepared for many of these available job opportunities.

Today, we are already seeing these changes taking place. Indeed, some view the Workforce 2000 projections as conservative. Some employers are already experiencing great difficulty in finding qualified applicants. For example, four out of every five applicants at Motorola Corporation flunked an entry level employment exam -- an exam that requires seventh grade English and fifth grade math skills.

Maintaining this country's economic security and competitiveness requires that we invest effectively in our human resources. We must do better. Currently our high school

completion rate is about 85 percent. We need to graduate close to 100 percent. It has been estimated that each year's class of dropouts will cost the Nation more than \$240 billion in lost earnings and foregone taxes over their lifetimes. And this does not include the billions more for crime control and for welfare, health care, and other social services that this group will cost the Nation. We also need to think of what this will cost the dropouts themselves. The gap between the annual income of high school dropouts and high school graduates was 31 percent in the early 1960's. This increased to 59 percent in the early 1980's and will likely increase further.

We need to equip each and every one of our youth with the basic skills they will need for the jobs of the future. This includes not just basic skills in reading and writing, but higher order reasoning and computation skills.

Upgrading the quality of our work force to ensure that we remain competitive and are economically secure does not necessarily require more government programs or dollars. But it does require a systemic change in how our institutions prepare our young people for the world they will enter. It is urgent that we respond and realign all our institutions and not simply lay blame with schools or teachers. It is a societal responsibility and I am convinced that with our American spirit we can respond.

The importance of educating our workforce cannot be overemphasized. It has been estimated that between 1929 and

1982, education prior to work was responsible for 26 percent of the expansion of the Nation's productive capacity, more than physical capital, which contributed 20 percent. If this was true in the past, it could be more true in the future, since we are becoming less of a manufacturing and more of a service-based economy.

Recognizing the urgency of addressing these human resource issues, the President convened the Nation's governors at an Education Summit to consider educational goals for the Nation. These goals, as articulated by the President earlier this year, are that by the year 2000:

- o All children will start school ready to learn.
- o The percentage of students graduating from high school will increase to at least 90 percent.
- o Students will leave certain grades having demonstrated competency in a variety of subjects.
- o American students will be first in the world in science and math achievement.
- o Every American will be literate, able to compete in a global economy.
- o Every school in America will be free of drugs and offer an environment conducive to learning.

The Education Summit marked an important milestone on the road to building a quality workforce through a national education strategy. While the Department of Education is working with the States and localities on reform of the education system, we are

undertaking initiatives to complement this effort -- particularly in the area of building the connection between educational excellence and business success.

Secretary Dole is bringing together business, education, labor, and State leaders to examine the skills that are needed by today's workforce and how academic standards and curricula relate to those skills. The Secretary has established a SCANS Commission (Secretary's Commission on Achieving Necessary Skills), chaired by former Secretary of Labor Bill Brock, that will define the skills that are needed to obtain, advance in, and retain a job; establish acceptable levels of proficiency for these skills; develop criteria for measuring the skills; and establish ways to disseminate the results to education and business. The idea is not to suggest that the schools change their mission to preparing young people for employment rather than educating citizens. What we are suggesting is that fully educated citizens must also be capable of succeeding in the workplace. The work of the Commission will contribute to achieving the literacy, high school graduation and competency goals of the President.

We believe there is the potential to significantly reduce the number of high school dropouts by helping students link what they are learning in school to work, thereby motivating them to stay in school and acquire the skills necessary to qualify for jobs with career potential. On May 15 the Departments of Labor and Education will convene a three-day conference of business,

labor, education and government leaders to discuss school-to-work transition issues and to recommend ways to improve linkages between school and work. The results of the conference and continuing dialogue with business, labor, and education will be used to develop and test alternative school-to-work models.

Increasing evidence points to work-based learning as one of the most effective methods of skill acquisition. Not enough of this type of training is done in the workplace. We are promoting the expansion of work-based training, including the use of "portable credentials," that are based on apprenticeship concepts through demonstration projects involving partnerships with industry groups.

We also believe our current "second chance" programs for those who do not succeed in the regular education system bear reexamination to determine if they can be made more effective human resource investments. We have proposed amendments to the Job Training Partnership Act to make the program more responsive to the emerging labor market of the 1990's. The amendments would:

- o better target JTPA programs on those youth and adults who are most at-risk of failure in the job market, such as school dropouts;
- o enhance the quality of the training provided by requiring individual assessments and service strategies, and requiring that basic skills deficiencies such as illiteracy be addressed;

- o increase program accountability by refining program performance standards and establishing achievement objectives for program participants; and
- o achieve a more comprehensive, coordinated human resource system.

We look forward to early completion of Congressional action on this important legislation.

We are also taking another look at the role of our Employment Service. Working closely with States, we are attempting to make the Employment Service more responsive to the changing needs of the labor market and plan to undertake a series of demonstrations with States to better meet State and local labor market conditions.

In conclusion, Mr. Chairman, the name of the game in maintaining our economic security is productivity. We need to improve our productivity, especially in the service sector. Our failure to pay greater attention to human resource development could seriously impair our ability to make such improvements and must be addressed.

While we must invest more effectively in our human resources, I agree with those who say that before we throw more money at the problem, we need to get right what we are doing now.

Our second chance systems such as JTPA and JOBS are important, but the most essential investment we must make is in the school system. Changes in our second-chance programs must be linked back to the school system, and to the extent that we can

address the problems through the education system, our reliance on second-chance programs will be reduced. However, we must recognize that problems that have developed over decades can't be solved in six months.

Mr. Chairman, this concludes my prepared statement. At this time I would be pleased to answer any questions that you or other members of the Committee may have.

Representative SOLARZ. Thank you very much. Congressman Scheuer, do you want to start out?

DELAYS IN IMPLEMENTING A PLAN OF ACTION

Representative SCHEUER. Sure. I am not going to ask any questions. I have to unburden myself of some thoughts.

We just heard superb testimony from you two gentlemen. Absolutely top drawer. I would not disagree with a dotted i or a crossed t of what you have said. Marvelous testimony. But, you know, we went through this a year and a half or two years ago. We had Bill Brock testify. We had Anthony Carnevale testify. We had Arnold Packer testify before this same Joint Economic Committee, and the words and the music were very much the same.

Now you tell me—and I do not say this in any sense of criticism of you two. Your testimony was magnificent. Now you tell me that Bill Brock is head of a commission. Correct?

Mr. JONES. Yes.

Representative SCHEUER. What is that commission designed to do, Mr. Jones?

Mr. JONES. To examine those necessary skills that are needed in the workplace and need to be linked with school systems.

Representative SCHEUER. I find that absolutely bizarre. Bill Brock does not need a commission. He is a brilliant, talented, terrific, experienced guy. He could come up here right now and tick off the things that have to be done. Why in the name of God do we need another commission? How many times do we have to reinvent the same wheel? There is a big, large consensus over what has to be done in the American education system.

I just find it awfully depressing that a wonderful guy like Bill Brock has not been put in charge of writing a program and preparing the legislation. He is superb. His testimony was magnificent. Why do we set him to work 2 years later when there is a desperate need out there for action now? Why do we set him to work 2 years later to head up a commission?

He knows it, and if he does not know it, he knows exactly the people who do know it. They could sit down. They could go to Airlie House or any one of these think tanks and spend a long weekend there and have this substance of a piece of legislation, a terrific piece of legislation. I just find it depressing that we are not moving on what we know. We research it, we discuss it, we form commissions. But we cannot seem to get a legislative proposal out of this administration to do what both of you gentlemen agree has to be done. You could spend a weekend at Airlie House, the two of you, and write out the basic nuts and bolts of an education reform package.

I am going to send you the report that I wrote. It is all there. I find it depressing that we are still studying the matter.

Thank you, Congressman Solarz.

Again, I want to congratulate you for your absolutely wonderful testimony. You were both terrific.

CONDITION OF ELEMENTARY AND SECONDARY SCHOOLS

Representative SOLARZ. Thank you very much, Congressman Scheuer.

Mr. SANDERS, I gather from your testimony that you think our elementary and secondary schools system is in bad shape.

Mr. SANDERS. Every indicator that we have, Congressman Solarz, would suggest that, indeed, that is true.

U.S. HIGH SCHOOL COMPLETION RATE

Representative SOLARZ. I think you indicated that the high school dropout rate is somewhere in the vicinity of 25 percent.

Mr. SANDERS. Yes, sir.

Representative SOLARZ. That means one out of every four of the kids in the country who start high school does not complete it.

Mr. SANDERS. With their peers. That's correct.

Representative SOLARZ. Do you have any idea what the high school dropout rate in the OECD countries is?

Mr. SANDERS. Not in every one of them. I believe I can make that information available to you. I know that in many of them the completion rate is much higher than we experience.

Representative SOLARZ. Could you give us a few examples off the top of your head? Japan?

Mr. SANDERS. Japan, for example, has virtually a 99 percent completion rate.

Representative SOLARZ. And some of the others?

Mr. SANDERS. I cannot recall any of the others right offhand.

Representative SOLARZ. Your impression is we are near the bottom of the OECD countries?

Mr. SANDERS. In terms of the completion rate, I would not suggest exactly where we are in the rankings.

ADULT LITERACY

Representative SOLARZ. Now, you indicated we had a problem with adult literacy.

Mr. SANDERS. Absolutely.

Representative SOLARZ. I have seen some figures which indicate there are about 20 million illiterate adults in the country.

Mr. SANDERS. That is correct.

Representative SOLARZ. What is your operative definition of literacy or illiteracy?

Mr. SANDERS. Well, there are several definitions that exist out there I'm sure, as you know, some based on reading levels, others based upon measures of functional illiteracy which is something more than just the ability to read and write, but actually to function. And it is that definition that the 20 to 23 million functional illiterates are determined.

Representative SOLARZ. And how is that functional illiteracy judged? Give me an example of what it means.

Mr. SANDERS. Well, it can mean such things as the ability to read an airline timetable to get from one destination to another to completing the forms for application for a position and so forth.

Representative SOLARZ. And how does this compare to other major industrialized countries?

Mr. SANDERS. We do not have like measures of functional literacy that allow us to make comparisons across countries.

OUR POSTSECONDARY SCHOOLS

Representative SOLARZ. Now, we seem to have an outstanding postsecondary school educational system in the country. In fact, I think you said that we arguably had the best in the world. Is that correct?

Mr. SANDERS. That is correct.

POSTSECONDARY SCHOOLS VERSUS ELEMENTARY AND SECONDARY SCHOOLS

Representative SOLARZ. Now, why is it that compared to the other industrialized countries we have an outstanding postsecondary school system but a relatively poor elementary and secondary school system?

Mr. SANDERS. One of the reasons, Congress Solarz, is because we have encouraged great diversity and competition among our postsecondary institutions that we have not encouraged among elementary and secondary institutions. Our postsecondary institutions are the envy of the world, and people come here from abroad to study because of the quality of those institutions.

We also invest more heavily in terms of our recognition and status given to people who work in those institutions, and they have greater latitude in the design of programs than what we give to, for example, secondary teachers.

Representative SOLARZ. Well, in terms of our ability to compete economically with the other major industrialized countries, if you had to start from scratch and you could opt for the outstanding elementary and secondary school system or the outstanding postsecondary school system, which would you say is more important? Which would you prefer?

Mr. SANDERS. Probably the place for the greatest quality to be found is in our elementary schools because they have the greatest long-term impact upon our children as learners not just then, but through the rest of their lives.

Representative SOLARZ. I gather there have been a series of tests or surveys, as it were, which demonstrate that in a whole series of disciplines our elementary and secondary school students do not do nearly as well as the elementary and secondary school students of our major economic competitors. Is that more or less a fair statement?

Mr. SANDERS. We do have a number of comparisons that we have drawn that suggest that.

U.S. ELEMENTARY AND SECONDARY SCHOOLS VERSUS OTHER INDUSTRIALIZED COUNTRIES

Representative SOLARZ. So, it would not be an unfair conclusion to say that in terms of the education as a whole, that we provide the young people of our country compared to the education that Japan, Germany, and France, countries like that, are providing their young people, that they seem to be doing a better job than we are, for whatever the reasons.

Mr. SANDERS. That is correct.

Representative SOLARZ. And would it be fair to say that over the long run, this is likely to have significant economic implications for the economic well-being of the country?

Mr. SANDERS. Absolutely.

Representative SOLARZ. So, this is a very serious problem and we have obviously got to do something about it.

Now, recognizing that money alone is not going to solve problems, but also recognizing that there are programs that seem to have worked, and if we had enough resources, we could make them available to more people, I would like to ask you about a couple of programs here and whether you think, leaving aside where we get the money from, assuming it could be available, it would be productive for us as a nation to fully fund these programs?

THE HEAD START PROGRAM

Let me start with Head Start. As I understand it, we now have about 488,000 participants in Head Start programs. I gather that there are 1.8 million who would be eligible for Head Start, but are not in it because there are not a sufficient number of slots for them. If we could make Head Start available to every child in the country who was eligible for Head Start, do you think that would be a worthwhile thing to do in terms of improving our educational system?

Mr. SANDERS. Yes, Congressman Solarz, I do believe that would be a worthwhile thing to do. I think that we need to be very careful that we grow those program as we can actually accommodate them in the system. They require new people to work in those programs, and that should be a planned, thoughtful growth.

CHAPTER 1 PROGRAM

Representative SOLARZ. And would you say the same is true about chapter 1? Here I gather we have 4.7 million participants. This is a program which, as I understand it, is designed to provide remedial assistance to educationally and economically deprived children in reading and arithmetic, mathematics. We have 4.7 million students in the country who participate in this, but I am told there are about 10.7 million who qualify who need the help, but who do not get it because there are not sufficient funds to give them that opportunity. Would it be useful to make chapter 1 available to every child in the country who can benefit from it?

Mr. SANDERS. Let me state that with a qualified yes, because the results of chapter 1 programs are mixed. They are not quality programs everywhere. Some are more effective than others. And so, yes, combined with the benefits that we ought to see out of the new school improvement legislation that will help us to improve the general quality of chapter 1, if used effectively, those funds may be well spent.

EXTENDING THE SCHOOL YEAR

Representative SOLARZ. What do you think about extending the school year for children who might be characterized as at risk youth, in other words, generally speaking, poor, impoverished kids?

I guess mostly we are talking about children in the inner cities of our large urban centers where some of these problems seem to be the greatest. Would it serve a useful purpose if resources were made available to enable the local schools there to extend the school year, once again leaving aside where it comes from, assuming it could be made available?

Mr. SANDERS. First, I think, we need to spend more effectively the moneys that we are spending and the time that we are spending with those children. And, yes, for some of them, an extended school year could be very helpful in terms of added achievement gains.

Representative SCHEUER. Congressman Solarz, could I ask one question at that point?

Representative SOLARZ. Certainly.

Representative SCHEUER. I have some misgivings about extending the school year for just kids who are at education risk. It seems to me you are stigmatizing them. You are stigmatizing a fuller school year. The Japanese send their kids to school 240 days a year. We send ours 180, and with an average of 20 days truancy and absenteeism, we have about 160 days. That means the Japanese are sending their kids to school 50 percent more than we are, 180 days as against 240 days. It seems to me that we do not want to stigmatize a fuller school year and that all the kids could use that extra time. There is no reason for kids to have 3 months off over the summer or 2½ months off for the summer. The kids who are doing well could get all kinds of enrichment courses. If there were some IGC's out there, intellectually gifted kids, let them be pushed and challenged.

My question to you two would be, would you contemplate that it is appropriate to provide a full school year just for kids who are educationally at risk and sort of run the risk that you would stigmatize that?

Mr. SANDERS. I would want to go back again first of all to the way I started the answer to the question when we were just talking about extending the year for at risk children. What we need to first, our first order of business needs to be the improvement of the way we are currently spending our resources and time. Once we do that, then a debate about what ought to be the appropriate length of the school year and how it is structured with respect to our society now, instead of an agrarian society, I think are very, very important questions that we ought to be asking but after we have done the kind of restructuring that we are currently in need of doing.

FUNDING THE HEAD START AND CHAPTER 1 PROGRAMS

Representative SOLARZ. Well, I am a little bit puzzled, Mr. Sanders. Here you describe what is clearly a national crisis in education which has profound implications for the future of our country. We are obviously not doing as well as our major competitors, and as you have said, over time this is going to hurt us considerably as a country, particularly as we move into high-tech economies and the like. Granted that there is no single solution or answer to this problem. There has to be restructuring. We have to give more au-

thority to the principal and to the school. We have to involve the parents. There are all sorts of things that need to be done.

But here we have two programs, which I gather are by and large considered very effective, Head Start and chapter 1. I am told that to fully fund the Head Start Program so that every kid in the country eligible for it would be able to participate would be about \$6.7 billion. For chapter 1, it would be \$9.5 billion. So, we are talking about \$16 billion a year more than we are spending now to provide opportunities for every kid who needs this help. Now, of course, not everybody in chapter 1 benefits, and not everybody in Head Start ultimately ends up as a college president. But I gather on a macro-level, we know that many more are helped by this and that this can make a big difference.

To the extent that this is such a serious problem, I do not understand why the administration does not recommend that these programs be fully funded.

Mr. SANDERS. Let me give you three pieces of information.

First of all, Head Start is a very good example. When the President met with the Governors in Charlottesville, out of the discussions there was a commitment to the funding of Head Start. There was a general belief among the participants that Head Start was very, very important program from a prevention angle.

Last year when the President had his first opportunity to adjust the last Reagan budget, he asked for some \$250 million in increases in the Head Start Program. We only received about \$160 million in that funding. This round we are requesting a \$500 million increase.

I think that, yes, there is a commitment on the part of the President and this administration to the funding of Head Start. However, as I mentioned to you earlier, we have to be able to thoughtfully grow and accommodate that program. I have worked most of my life out in the other end of this business, and one cannot just start up programs to the extent that they then become failures because you are unable to staff them and equip them properly.

Representative SOLARZ. So, it has to be phased in. But this could presumably be done over a number of years. And I do not see a commitment on the part of the administration to do that. And I have not seen the administration say over the next 5 years we want to provide the resources so that every child eligible for Head Start or chapter 1 will be able to participate in the program. And 5 years ought to be enough time to phase it in from an administrative point of view effectively, but you have not done that.

I agree you have asked for more money than we have had in the past, but even if we had given everything you asked for, it still would have fallen far short of what was needed to bring every child into the program who is eligible and needs it.

Representative SCHEUER. Congressman Solarz, would you yield on that point?

Representative SOLARZ. Yes, Congressman Scheuer.

Representative SCHEUER. To be very precise about it, we are taking care now of about 16 percent of the kids who are at dire education risk. That is about one out of six. The President's \$500 million would bring that up to 20 or 21 percent which is an improvement, but we are still telling 79 to 80 percent of the kids who are at dire education risk and their parents you are not going to

get a Head Start Program because we are not ready to put in, as Congressman Solarz said, the \$6 or \$7 or \$8 billion a year that would be needed to assure those kids that they had a free shot at a successful education career.

Now, it seems to me that, if this administration were in earnest, they would have provided a full funding bill for Head Start, as Congressman Dale Kildee, who is chairman of the authorizing committee, and I have done, and I am sure without even looking, Steve Solarz is on that list. And we provide full funding in incremental steps so that by 1994, in 4 years, every kid in America will have an enriched preschool experience.

Now, if you mean business and you want to enable communities to start planning for the expansion of Head Start, both the physical facilities and the professional and paraprofessional manpower that you need for these programs, why in the world doesn't the administration come up with a program for full funding of Head Start phased in over a reasonable period of years? That is the question, as Congressman Solarz said. You have gone from 16 or 17 percent to 20 or 21 percent. Great. How about the other 80 percent?

Mr. SANDERS. We did express a commitment to Head Start both in terms of our funding request and in the agreement that we have reached with the Governors at Charlottesville. You can see that re-emphasized in the six national goals. The first of those goals is that we by the year 2000 see every child ready to succeed, ready to learn whenever they arrive at the schoolhouse door.

Representative SCHEUER. Why do we have to wait 10 years before we have an education system that can educate our kids the way every industrialized country around the world is doing? That is absurd.

Mr. SANDERS. I said by 2000 we would be there.

Representative SCHEUER. Do you think it is beyond the capability of our education establishment to be there a lot sooner than the year 2000 if they got some leadership and some drive and a promise of adequate resources from the administration? Don't you think we could do it sooner than in 10 years?

Mr. SANDERS. I believe that having children ready to learn to succeed whenever they reach school is more than just fully funding Head Start too, Congressman. I think there is more involved in that than just—

Representative SOLARZ. If the gentleman will yield.

From your point of view, supposing the money were somehow made available to fully fund the WIC program, fully fund Head Start, fully fund chapter 1, to extend the school year perhaps in some areas, maybe in all, but if we were to do all of these things, do you think it would have collectively a measurable impact on, say, the dropout rate, on the literacy rate, on the performance of our students in these different disciplines compared to the students in other industrialized countries?

Or do you think at the end of the day, because of other reasons, socioeconomic factors, family factors, administrative factors, so on and so forth, it would at most have only a marginal impact so maybe the dropout rate, instead of 25 percent, would be 23 percent, our kids in math compared to other countries, instead of ranking 14 out of 17, might rank 12 out of 17?

What I am trying to get at is if we were to do all of these things, Head Start, chapter 1, somewhat extended school year, WIC Program, all the resources made available, would it have a significant impact or not in your view?

Mr. SANDERS. If those were the only things that we did, if we did not improve what we are doing already with the investments that we are making, then probably the impact would be at best modest. If we do those things and combined them with the real restructuring that is required, then we ought to see a significant impact.

RESTRUCTURING OUR EDUCATIONAL SYSTEM

Representative SOLARZ. Now, can you describe succinctly and clearly what this real restructuring requires and what, if anything, the Federal Government can do to bring it about? Because you can give testimony that we have to give more authority to the school principal, but—

Representative SCHEUER. To teachers, too.

Representative SOLARZ. Yes, but assuming that is the correct prescription, is there any way we can get that done here?

Mr. SANDERS. I think there are a number of experiments that are going on right now out there that I can point you to that have great promise for success in restructuring. The recipe for an individual school is not the same necessarily as for all other schools.

I think the work that Hank Levin, as I mentioned, is doing at Stanford with his notion of an accelerated elementary school, that is, that if we are going to see the kinds of gains that are required particularly with underachieving students, that what we have to do is accelerate their learning and not try to remediate or compensate for it. There are schools that are right now thoughtfully trying to apply his principles.

Representative SOLARZ. Let's assume that is the right approach. How does the Federal Government get schools all over the country to adopt and implement it?

Mr. SANDERS. Well, the first thing that we do is we make it possible for them to do just exactly that, we give them greater flexibility in how they use both Federal and State resources, but at the same time state the results that we are expecting them to achieve, and then build systems to measure and hold them accountable for attaining them.

Representative SOLARZ. Well, what do you mean by greater flexibility? Instead of chapter 1, should we have a block grant for the schools to let them use it any way they want?

Mr. SANDERS. I would not suggest that we let them use it just any way they want. They ought to be using it for the general purposes for which that money is provided. That money is targeted toward educationally disadvantaged. It ought to be used to increase their performance. Yes, we ought to give greater flexibility in the use of those funds, but to accomplish the basic purposes of that act.

THE JTPA PROGRAM

Representative SOLARZ. Mr. Jones, do you think the JTPA program basically is a good program?

Mr. JONES. I think it is indeed the best program we have had to date, but clearly some fine tuning has to be done.

Representative SOLARZ. How many current participants are there?

Mr. JONES. There are a little over a million in the basic program a year.

Representative SOLARZ. And are there others who are eligible for participation?

Mr. JONES. Yes. The JTPA program in general probably impacts about 6 percent of the eligible population. Now, we are talking the same basic populations that chapter 1 and several of these other programs—

Representative SOLARZ. It's 6 percent. And the other 94 percent are not impacted because basically there is not enough resources in the program to reach them or because they are not interested?

Mr. JONES. Well, it is probably a combination of three things. In some cases, they are not interested in accessing those kinds of services. They are basically training and subsistence services. Second, many of them are already in chapter 1 and other programs, and then in some cases we are not serving them.

Representative SOLARZ. What is the track record on JTPA in placing people in jobs?

Mr. JONES. It's about 61 percent of the total program.

Representative SOLARZ. So, that is pretty impressive.

Mr. JONES. Yes, sir, it is.

Representative SOLARZ. In other words, 61 percent of the people who have participated in JTPA end up with jobs.

Mr. JONES. Right.

Representative SOLARZ. Would it be fair to say that there are many more people that could benefit from JTPA if the resources were available to expand the program?

Mr. JONES. Surely.

Representative SCHEUER. Congressman Solarz.

Representative SOLARZ. Yes.

DELAYS IN IMPLEMENTING IMPROVEMENTS

Representative SCHEUER. Very briefly. I just want to reiterate we have extensive testimony on the JTPA 2 years ago, and Arnold Packer testified, Mr. Carnevale testified. We had extensive testimony on the need to create better linkages between the school and the workplace. Why don't we get on with it?

Mr. JONES. I think in terms of the basic system right now, we are well in the midst of that discussion. I would suggest that where the system is today in conjunction with the school system, in conjunction with the standards that are necessary, is quite a bit ahead of 3 years ago.

But, more importantly, in response to your earlier question, the legislation going through the Congress right now raises the bid here rather substantially in both cases. The youth programs which will now be funded in the neighborhood of \$1.7 billion a year, substantial increases, are directly tied into the school system and link the two together.

Second, the concept of setting higher standards, both for basic skill attainment and for placement, has a very substantial impact. Again, as Under Secretary Sanders pointed out, they are not overly popular with the bureaucracies that are running this system. We are starting to put a fair degree of pressure on those systems for a quality management system now. This is not happy old grants time that we went through back in the 1960's.

DEVELOPING A SENSE OF URGENCY REGARDING THE CRISIS IN OUR
EDUCATIONAL SYSTEM

Representative SOLARZ. We have a vote coming up. I want to conclude this part of the hearing with an analogy and just ask you to briefly comment on it, and then we will go and vote. When we return, we will hear from our next panel.

In 1940, before Pearl Harbor, but after the outbreak of the Second World War, the United States was producing relatively minimal levels of military equipment, tanks, planes, artillery pieces, army personnel carriers, and the like. After Pearl Harbor, when we were attacked and we were involved in the war, Franklin Roosevelt transformed the United States into the arsenal of democracy almost overnight. I do not know exactly what the figures are. I will ask my staff to get them for future reference.

But we went in 1 year from producing maybe a couple of hundred or a few thousand planes to 25,000, 50,000 planes a year. And we did that because the political will to do it was present. There was a perception of a clear and present danger to the Nation. Obviously, in order to win the war, we had to do much more than produce planes and tanks and the like. We had to field and train an army and so on and so forth. But without that production, we probably would not have won the war.

Now, we face a very different kind of threat to our security, but one which is, nevertheless, very real. It is the challenge we face from the other industrialized countries economically. And you men probably know better than most Americans that if we do not begin to do a better job in dealing with this, not overnight, not in a year, not in a decade, but at some point in the 21st century, our country is going to slip very badly behind. We are not going to be able to maintain our standard of living and perhaps preserve our way of life.

Now, in order to deal with this kind of challenge, like the challenge we faced in the early 1940's, we have to do a whole series of things. One of them is to do a much better job in providing for education and job training. Part of that, not all of it, lies in substantially increasing the funding for programs that work, the Head Start, the WIC, the chapter 1, the JTPA. By itself, like the production of planes and tanks, it will not do it, but without that, we are also not going to be able to do the job.

So, it seems to me that what is really lacking here is the political will, the sense of national urgency, as it were. I would just like you to very briefly comment on whether you think that is a fair comparison, and to the extent it is, what do we need to do to generate the sense of urgency and the political will which will make it possi-

ble to move forward on these programs in a much more meaningful way than we have so far?

Mr. SANDERS. Congressman Solarz, first of all, as we entered World War II, every citizen saw the clear and apparent danger. I do not believe, as I mentioned earlier in my statement to you, that is true as far as the crisis that we currently have and particularly the link between that crisis and the crisis in our education system, and that particularly most parents or most citizens, while they may recognize that there is a general link between our economic competitiveness and our educational vitality and see that there are schools maybe generally that are failing, they do not see the failures in the schools that they are familiar with. They see them as still adequate and up to the challenge and therefore not likely to act and to prompt the rest of us to act. I think our first challenge is to see each and every citizen recognize that the situation is very, very grave even in the school where that parent's child is attending.

Mr. JONES. I think that this issue is broader within that same description. I think that we are confronted with several messages here. I do not think the American public is as aware as we need to be, that in fact we are in a period in which there is job demand, that every individual coming through that system can succeed and can work. And particularly for chapter 1 and Head Start, in these populations; that message may be every bit as important as the mechanical existence of the program.

Second, as Congressman Scheuer has been speaking about for some years, the American public is not aware of the changes that have gone on at the workplace and the impact that has back on the school system. We are not linking those two things publicly at all, and that makes a big difference when we come to trying to get the visible public will to make a change in the system.

Representative SCHEUER. I will rise to a point of high personal privilege, Mr. Jones, since you mentioned my name. I think the public is very well aware across the country of the desperate deficits of our public education system. And poll after poll has showed that they will spend more money. Lou Harris did a poll where they said they would sit still for another 2 percent on their income taxes if they thought the moneys would work and would be applied, as you said clearly, Mr. Sanders, in new and innovative and more creative ways, giving more discretion to teachers and principals and so forth.

I am not going to be able to come back, Congressman Solarz. I simply want to ask Mr. Packer and Mr. Carnevale whether, as Yogi Berra suggested, they don't have that old *déjà vu* feeling all over again. [Laughter.]

Thank you very much, Congressman Solarz.

Representative SOLARZ. Gentlemen, thank you very much. We will recess for about 10 minutes and then resume with the next panel.

[A short recess was taken.]

Representative SOLARZ. The committee will resume its deliberations. I apologize for the delay, but as I suspect the witnesses know, that goes with the territory.

Let me assure you that your prepared statements will be included in the record. Perhaps in the interest of time, you can summarize your prepared statement in about 5 minutes and then we can have the maximum amount of time for questions.

Why don't we hear first from Mr. Carnevale, then Ms. McBay, then Mr. Packer, and then Ms. Simms?

**STATEMENT OF ANTHONY P. CARNEVALE, VICE PRESIDENT,
AMERICAN SOCIETY FOR TRAINING AND DEVELOPMENT**

Mr. CARNEVALE. It is difficult to say anything that has not been said before in this room. What I would like to do is pick up on something that you were talking about before you left and restructure your question a little bit. At Pearl Harbor we had a relatively skilled work force that went off to war, and then we proceeded to build the arsenal of democracy with a relatively unskilled work force largely by drawing these workers into our factory system and producing armaments and implements for war in a fairly productive way.

If you talk to American manufacturers these days, their response to that is that things have changed. In the event of some major challenge to American security, whether it be war or an economic challenge, that work force is no longer there. That is for a couple of reasons.

One, the production system itself has changed. In those days we made things by using a fairly world-class set of white collar and technical elites that we set at the top of organizations and we combined them with relatively unskilled workers at the bottom of organizations. Through organizing work in a very rational fashion with high loads of rigid machinery and careful organization, we combined all of that into a final product. We were able to become the world-class competitor in productivity.

What has changed since then is that we no longer compete solely on the basis of productivity. We compete on the basis of the quality of our products, our ability to produce variety in our products and services, our ability to customize our products and services, our ability to provide convenience, that is, good customer service and to produce things that are easily used, and our ability to make things faster than other people, to take an idea from Harvard and put it on the street and into the hands of a consumer quicker than anybody else.

That requires a much more highly skilled worker because most of the skill requirement that is necessary to do that needs to be down the line, in the case of manufacturing in the factory toward the point of production and the point of service delivery and services and at the interface with the customer. These people are using more flexible technologies that require that they have flexible and deeper skills. They work in organizations that are no longer as hierarchical, where workers down the line have real autonomy and need the skills to use it, whether it is in a bank where a front-end person customizes a financial service for you or whether it is in a factory where you customize a short production run.

In any event, the skill requirements have gone up and to make matters worse, we have been confronted with a demographic reali-

ty. For the first time recently in the postwar era, the relative shortage of 16- to 24-year-olds makes it so that we are now drawing on populations that we did not draw on prior to now and we need to provide them with sufficient skills so that they can perform at work given access to work.

I think the fundamental conditions in the economy have changed that require a better work force and not just a better work force for the sake of opportunity for people who traditionally have been excluded. Work requirements for all of us have expanded, and our skill requirements are higher than they used to be. In this fast-paced economy where change is constant and where you never know where the next shot is coming from in an industry or a region or in an occupation, where the word "flexibility" in the business world is oftentimes a euphemism for fired, job security is on the decline. American workers need a whole new tool kit in order to be flexible, which includes flexible training, flexible and portable pensions, portable health care, and portable family services like parental leave and day care.

The bill that we face to produce that work force adds up to a good bit more than the cost of programs for the traditionally disadvantaged.

We do not seem to have the \$18 to \$20 billion needed to fully fund programs for the disadvantaged, much less the money to up-skill the rest of the work force.

Thank you.

[The prepared statement of Mr. Carnevale follows:]

PREPARED STATEMENT OF ANTHONY P. CARNEVALE

America is facing a new economic and demographic reality--a reality that requires us to expand our policy goals in education and training beyond the established concern for social justice for the disadvantaged and dislocated to a broader concern for the employment security of the mass of American employees and the competitiveness of the nation's employers.

Qualified entry-level employees are increasingly scarce--suggesting an urgency in addressing the education and training needs of the disadvantaged and dislocated. But declining competitiveness and job security suggest that we need to add the mass of mainstream employees and employers as appropriate targets of education and training policy.

Unfortunately, the nation's social commitments, demographic changes, and economic realities are on a collision course with the dismal prospect for increased spending on education and training by the federal government.

In response to this conflict, I offer a "poor man's program" to meet the emerging challenge. My program includes:

1. Priority assistance for the disadvantaged, including prenatal care, nutrition, pre-school education, compensatory education and job training, at a total cost of roughly \$18 billion in new spending.

2. Assistance to the dislocated at a total cost of roughly \$1 billion per annum in new spending.

3. A tool kit to make American workers truly flexible, including portable pensions, health care, parental and child services, and training.

The disadvantaged must have the first claim on public resources. We are already past due on our commitment to provide equal opportunity for participation in the American culture, polity, and economy.

Our policy to prepare the disadvantaged for jobs with a future will require a mix of family support, basic education, and job training. Programs should be predicated on the principles that the best social welfare agency is a family; the best educator is experience; and the best trainer is a job. With these principles in mind, a program to provide a real chance for the disadvantaged would include:

- o an additional \$1.7 billion that would allow us to provide prenatal care and sound nutrition to almost 3.5 million needy mothers and poor families who remain unserved by current programs;
- o an additional \$4.5 billion to provide pre-school education for all the two million poor children who remain unserved;
- o an additional \$3.8 billion to provide a combination of compensatory education and work experience for the half of the nation's poor

- and educationally disadvantaged students who get no extra help; and
- o an additional \$8 billion to provide training, preferably on the job, for an additional four million dropouts and disadvantaged adults.

Experienced employees who become unemployed after several years on the job also have a priority claim on federal resources. The same destructive processes are at work for the dislocated and the disadvantaged; there is no fit measure that allows us to choose between their suffering. The disadvantaged tend to start out and end up at the bottom of the economic heap. The dislocated employee experiences an economic loss that rarely results in persistent poverty, but probably involves an equal amount of suffering. In the case of dislocated employees, it's not so much where they land that hurts, it's how far they have to fall.

Dislocation is here to stay. The harsh reality is that a fair trading system and new technology will inevitably benefit all of us and harm some of us. In the end, practical necessity and simple compassion suggest the need for policies for dislocation, if we are to avoid protectionism and do right by loyal employees.

Policies for the dislocated are not expensive. The billion dollars proposed by the Reagan administration should be sufficient new money to pay for effective programs to serve the roughly one million experienced American employees who are dislocated each year. In addition, current proposals for expanding the uses of the

\$30 billion of the unemployment insurance system beyond its current emphasis on income maintenance are worthy of consideration.

I would suggest three principles in crafting programs for the dislocated:

1. We should hitch the safety net higher to help the dislocated employee avoid a free fall from middle class status to official poverty.

2. We should get them before they are gone. Prior notification--now required by law--counseling, job search assistance, and outplacement should be encouraged while employees are still on the job.

3. The best thing you can do for someone who is out of work is help him or her find a job. Give dislocated employees counseling and job search assistance; then give them training. Training outside the context of a job or job commitment is usually folly. Training does not create jobs. Jobs create the need for training.

The vast majority of employed Americans who are neither disadvantaged nor dislocated are becoming new claimants for public resources. The pace of technical and economic change has increased basic skill requirements in the preparation for work and increased the need for skill upgrading after employees are on the job. The pace of change has also reduced the commitment between employer and employee, forcing employees to take responsibility for their own employment security and career development. If employees are

going to take responsibility for their own careers and the security of their families, they are going to need some new tools, such as access to retraining, portable pensions and portable health care coverage, day care, and parental care.

These new services will have to be paid for with some mix of public, individual, and employer resources. State and local governments will have to shoulder a major share of the burden. The federal government can afford to play an important and inexpensive leadership role.

Public resources will be required to improve and expand on the basic skills traditionally taught in the public schools. The United States is competitive at the educational preparation of white collar and technical elites, but less effective at providing basic educational and occupational training to non-college youth. The 43 percent of American high school students who are tracked into the watered-down "general education" program and the 19 percent who are in vocational courses need a new curriculum that mixes solid academic basics and applied learning if their education is to provide them and their families with employment security in the emerging go-go economy.

Schooling accounts for about 10 percent of the variation in earnings among Americans. The remaining 90 percent of earnings differences among Americans is accounted for by career choices and experiences after schooling. The more schooling one gets, the more formal learning on the job one gets. Learning on the job,

especially formal learning, is the most powerful of earnings determinants after school. Those who get formal learning on the job enjoy a 30 percent earnings advantage over those who do not.

A policy to improve the job security and earnings of adult Americans should include four components.

1. Loans should be made available to individuals that could be cashed in with employers or other education and training providers, in order to give individuals direct control over their own career development.

2. The tax code should allow deductions for career-related learning paid for by individuals.

3. Incentives should be provided for employers to provide more training. Investment incentives delivered through the tax code would be ideal, but probably too expensive in the current fiscal environment. A more fiscally prudent program would include:

- o presidential leadership that encourages employer training and public and private partnerships;
- o the encouragement of state and local experimentation with policies to encourage employer training; and
- o R&D and the dissemination of best practices in employer training.

3. A "third party" strategy that would utilize institutions out side government and industry--such as unions and professional, occupational, and trade associations--to develop standards,

training and internship and apprenticeship experiences in particular occupations.

4. Grants awarded to employers and the full range of public and private training suppliers for "capacity building" to deliver more effective job-related training.

Employer institutions are a logical target for public policy. The economic importance of learning on the job is primary. Between 1929 and 1982, advances in knowledge on the job accounted for more than half of the growth in the nation's productive capacity. The other principal contributors to our improved economic performance were education (27 percent) and machine capital (20 percent).

Unfortunately, policies to encourage more and better employer-based training are conspicuously absent from the nation's investment portfolio. The absence of learning infrastructure on the job is the missing link in the partnership between school and employers.

A job is the price of admission to this individualistic culture and participatory political system. Those who cannot get work disappear from the community, drop out of the political system, and fall into the underground economy.

The litmus test of our commitment to opportunity will be our willingness to commit public resources to make every American capable of getting and holding a job.

Representative SOLARZ. Thank you.
Ms. McBay, please proceed.

STATEMENT OF SHIRLEY M. McBAY, DEAN FOR STUDENT AFFAIRS, AND DIRECTOR, QUALITY EDUCATION FOR MINORITIES PROJECT, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Ms. McBAY. Thank you very much, Congressman Solarz. I appreciate this opportunity to come and talk with you about the question of the role of education and training in the Nation's security, and I do so representing the perspective of the Quality Education for Minorities Project.

We recently issued a report entitled "Education That Works: An Action Plan for the Education of Minorities." And I would like to just talk briefly about some of the things we found with respect to the status of minority education and then some of the recommendations. But listening to your comments and questions with the previous panel, I think you already know the right things to do. The question is, Can we get the will in this country to do those things?

Let me say that as far as minority children are concerned, that even though we are now some 35 years since the passage of the *Brown v. The Board of Education* decision, minority children are still attending largely separate and totally unequal schools. Most of these schools are operating with outmoded curriculums. They have structures that assume that only a small elite need to be well trained. These children are being taught by the least experienced teachers in classrooms that have the fewest resources.

Early on they are labeled as needing special education, and their languages, their cultures, and their ZIP codes are considered as deficits.

They only hear token references to minorities in their classes.

And more often than not, they are being taught by teachers who have low expectations of them.

They are taught by teachers who generally live outside of the community from which these children come, and many of these teachers appear to blame the children for the circumstances that they are in.

The predominant mode of instruction is drill and practice, and keeping order in the classroom—and I can tell you this from direct experience, I just saw it in a school last week—takes precedence over interaction with the students and having them learn how to solve problems.

Many of the students who do manage to go on to graduate face the reality that the education that they have received does not prepare them for college adequately or for life. I guess in simple terms, the educational system that we have in place in our view essentially prepares minority students for failure.

Those that do go on to college are most likely to be in 2-year institutions from which a very small percentage transfer to 4-year institutions. Even if they enroll, they do not graduate because attrition is a major problem among minority students. As a benchmark, white students earn baccalaureate degrees at twice the rate of black students and three times the rate of Hispanic students.

If any manage to get to the doctoral level—and we know that very few of them do—we find there that international students, for example, in 1986 earned nearly four times as many doctorates as all underrepresented minority students combined.

So, I guess the trend is clear. You cannot miss it. The higher up the educational ladder you go, the fewer minority faces you see.

At the same time as minorities lose ground educationally, they are changing the face of America. And when you talk about demographic changes, it is not just that there is a decrease in the size of the 16- to 24-year-old population, that pool is increasingly minority. So, the question then becomes is the country going to continue to ignore this group of people. Perhaps the economic arguments will now persuade people to do what is right.

If we look at our public schools, they are already about 30 percent minority; and as you know, in some States minority students are already in the majority.

You have heard already what the implications are for the work force.

Let me just say that I think perhaps the driving force behind the inequality that exists in the educational system is probably more than anything else due to myths that are there, myths that exist about minorities and their innate abilities. We found everywhere we went the perception that minorities simply are not able to learn because learning is due to innate abilities and therefore they are less capable of achieving academic excellence.

There are many people who view the situation as hopeless. They listen to the 7 o'clock news and they read the newspapers, and they think the problems are so great that we cannot find a way to respond. They think that equity and excellence are in fact in conflict.

In addition to those myths, I would say that the other major problem is tracking, and we argue very strongly for eliminating tracking. As I suggested earlier, students get labeled early on. They get into these lower tracks. They never get out. They never have an opportunity to take the math and science courses that would even allow them to consider having a math or science career as a option.

We lay out in our report a comprehensive plan for making corrections in the system from preschool to the postdoctorate level. We talk about restructuring. You have already heard about that.

We, as does the President and as well as the Governors, think that minority students ought to start school prepared to learn. We advocate some of things that you talked about earlier, the full funding of Head Start, of WIC, and of child care. We think that we ought to invest in new ways to have parents more involved in the educational process.

The second goal—and I will close with this—is we think every student who graduates from high school should be fully prepared to be successful whether he or she goes into the work force or to college, and not be in need of remedial education. We think if you improve the educational system for minorities, that you will improve the educational system for everyone. Money now being spent on remedial programs, some of the ones you talked about earlier, the chapter 1 programs, could be used to benefit all children. There are

hundreds of programs around the country trying to fix up a system that really does not work for minority children.

And so, we would argue that you restructure the system, that you put into place strategies known to be effective with minority children, such as cooperative learning, and that you familiarize teachers more with the backgrounds of the students they are teaching, have them reflect in the curriculum the contributions of the cultures represented by those children.

In our report we have a chapter on the estimated costs. They are significant. We have a system in place that took a long time to get the way that it is, and it is going to take a long time to correct it. We need to make the investment.

We do not need to worry about the stigmatism that I heard someone refer to—I guess Congressman Scheuer—about extending the school year. We advocate the extension of the school year. It would be very costly to do that for all 16,000 school districts, but you do need to start with the students who need it the most. And as you know, they are concentrated in many cases in the inner cities.

Thank you.

[The prepared statement of Ms. McBay follows:]

PREPARED STATEMENT OF SHIRLEY M. MCBAY

Mr. Chairman and members of the Committee, I appreciate the opportunity to share with you the views of the Quality Education for Minorities Project regarding how the nation's educational and training systems can be improved to produce a more competitive work force. In my statement I will address the educational and economic status of African Americans, Alaska Natives, American Indians, Mexican Americans, and Puerto Ricans; the implications of their projected representation among the U.S. population and work force in the coming decade; changes that must be made in our current educational and training systems if we are to meet their and this country's educational and work force needs; and estimated costs for implementing some of our priority recommendations.

My remarks are based upon the experience and insight gained through a two- and a-half year process supported by the Carnegie Corporation of New York and the Massachusetts Institute of Technology involving regional meetings, small group discussions, commissioned papers, meetings of representatives of national organizations that have projects focusing on the education of minorities, the advice and guidance of a national Action Council and a Resource Group, and the work of faculty, staff, and students at MIT and at the University of Texas at Austin (the academic home of the Chair of our Action Council, Professor and former U.S. Secretary of Labor Ray Marshall).

In this process, we spoke with several hundred people, learned about a number of exemplary educational projects around the country, and reviewed several hundred reports and articles focusing on educational issues and efforts affecting the quality of education received by minorities. Our findings and recommendations are reflected in the January 1990 report entitled "Education That Works: An Action Plan for the Education of Minorities."

Three major conclusions of our work bear directly upon the focus of this hearing:

- (1) If this country is to maintain or improve its current standard of living, it can only do so with a work force capable of using leading edge technology.
- (2) Our educational system as presently structured, staffed, and financed is incapable of producing the quality and number of skilled workers required for the United States

to remain internationally competitive.

- (3) Well-entrenched myths held about the innate abilities of members of certain minority groups and about the ability of the country to get by with only an educated elite are the driving forces behind our inferior educational system.

EDUCATIONAL STATUS OF MINORITY YOUTH:

Despite the passage of more than 35 years since the Brown vs. Board of Education ruling, minority children continue to attend separate and unequal schools. Today 22 of the 25 largest school systems in the country are predominantly minority and the majority of the schools within those systems operate with outmoded curricula and structures based on the assumption that only a small elite will have or need to have substantial academic success. Minority youth are taught by the least experienced teachers in classrooms with the fewest resources. They are labeled early on as being in need of special education and are left behind because their languages, cultures, and zip codes are considered deficits.

Minority youth are still unlikely to see more than token references to their people in their classes. More often than not, they are taught by teachers who do not look like them, who do not have high expectations of them, who live outside of their community, and who blame the children for their circumstances.

The predominant mode of instruction is drill and practice. Keeping order in class takes precedence over interactive learning and problem solving. Minority children are continually told that if they will only try harder, they will succeed. While this is often true, the tragedy is that at least as often it is untrue. Many who persevere to graduation face the reality that their education may mean little in the job market, and may leave them vastly underprepared for college or life. We have a system in place that prepares the majority of minority students for failure. The fundamental reality of educational reform for most minority children is that so little of it has been to their benefit. The rush to raise scores, to institute competency tests, and to increase teacher standards without addressing root causes of problems has served more to cull rather than harvest minority youth.

According to a recent report of the National Center for Children in Poverty entitled "Five Million Children," in 1987 48% of young Black children and 42% of young Hispanic children were poor in sharp contrast to 13% of young white children. These children are poor because their families are poor. Furthermore, children with less-educated parents are more likely to be poor. The report notes

that in 1987 the poverty rate among Black children under six whose parent or parents have not completed high school was 76% while for Hispanics it was 60%.

Poor children are more likely to end up with early health problems and inadequate social development. These early, negative experiences contribute to their being labeled retarded, with "ability" testing and grouping sometimes beginning as early as the pre-kindergarten level. They are most often placed in low-ability or remedial tracks from which it is nearly impossible to escape. By third grade, minority and non-minority achievement levels begin to diverge with minority children falling behind, scoring by the middle school years at levels a year or more behind. As a consequence, minority children begin to drop out of school in significant numbers as early as the seventh grade. Many end up having children at an early age and eventually end up living in poverty as adults as well.

Although dropout rates among Black youth have fallen by about half (from 27% in 1968 to 15% in 1988), the rate for Hispanic youth in 1988 was nearly 36%, about three times the rate for white youth.

Non-Asian minority youth taking the Scholastic Aptitude Test (SAT) as part of their applications for college have closed the gap somewhat between their average scores and that of whites; however, in 1989 the combined SAT verbal and mathematics scores for white students were still 27% higher than combined scores of Black students, 22% higher than scores of Puerto Rican students, and 15% higher than scores of American Indian and Mexican American students.

A smaller proportion of minority high school graduates go on to college than do white graduates and those that do go on are more likely to be in two-year institutions from which transfer rates to a baccalaureate institution are low. Enrollment is not graduation, with attrition continuing to be a major problem among minority students. White students earn bachelor's degrees at twice the rate of Black students and three times the rate of Hispanic students. At the doctoral level, international students in 1986 earned nearly four times as many doctorates in U.S. institutions as all Alaska Native, American Indian, Black, and Hispanic students combined. The trend is unmistakable; the higher up the educational ladder one climbs, the fewer minority faces one sees.

DEMOGRAPHIC CHANGES:

As minority children are increasingly losing ground along the educational pipeline, they are also changing the face of America. Today, nearly one-quarter of all Americans are minority, and by 2020, at least one-third of the nation will be nonwhite. The Census Bureau estimates that before the end of the next century, the United States will be a "majority-minority" nation -- that is,

fewer than half of all Americans will be white. The future has already arrived in our public schools. About 30 percent of all students are minority and in some states, minority students are already in the majority. These demographic changes and the lack of educational progress among minorities have enormous implications, not only for our schools and universities, but for our future work force.

IMPLICATIONS FOR OUR WORK FORCE

If the United States is to compete successfully, we must be able to develop and use advanced technology, and have the best-educated and best-trained work force in the world, not merely in leadership positions, but throughout the system. Developing the talents of minorities who, along with white women and immigrants are projected to constitute almost 90 percent of the net growth of our work force for the rest of this century, is not an option but a necessity; the need is not eventual but immediate. The majority of all new jobs between now and the year 2000, according to the Hudson Institute's "Workforce 2000," will require postsecondary education. The uneven quality of our current work force and of each year's products from our educational system leave the nation increasingly vulnerable and ought to create a greater sense of urgency.

SOME MYTHS ABOUT MINORITIES

In addition to the lack of recognition of a pending national emergency, there are other barriers standing between minority youth and a quality education. Among the most difficult of these are certain myths that shape the public's understanding of what is at stake, and of what can be accomplished. The most pernicious of myths is the widely held view that learning is due to innate abilities and that minorities are simply less capable of educational excellence than whites. Many others see the situation as hopeless; they believe the problems minorities face are so overwhelming, that society is incapable of providing effective responses. Quality education for all is seen as a luxury since not all jobs presently require creativity and problem solving skills. Indeed, education is seen as an expense, not as an investment in our future. Many hold the view that equity and excellence in education are in conflict. Such beliefs not only result in poor education for minorities but for nonminorities as well.

Other major obstacles to achieving quality education for minorities include low expectations, tracking, and inadequate school financing. Students must not only hear that "all children can learn," they must feel that they are truly valued and that they can achieve academic success. In the first few days of school, judgments are made about the ability of children. Some, it is decided, are advanced, some are average, and some are behind, and so the tracking and ability grouping begin. In most of our school systems, this decision effectively seals the child's fate,

sometimes for life. Students classified as slow almost never catch up and school rapidly becomes a forum for failure, not an arena for success. By the time these children are in middle schools, tracking intensifies and options begin to close. It is minority children who are disproportionately placed in lower, non-academic tracks. Further, schools serving large numbers of minority students often have the fewest resources, the most crowded classrooms, and the lowest per-pupil expenditure ratios.

OVERCOMING OBSTACLES: RESTRUCTURING AMERICAN SCHOOLS

Providing quality education for minorities can lead to quality education for everyone. Restructuring America's schools can create systems that incorporate the lessons learned from the many successful grassroots efforts to improve minority education in place around the country. Restructuring means making fundamental changes in the rules, roles, and relationships in schools. A restructured school would make student achievement the main criterion against which teachers, principals, and administrators are judged and rewarded. A restructured system would decentralize decisions about how to improve learning and would increase the involvement of teachers, principals, parents, and child development professionals in school policy discussions. Restructured schools are central to the provision of quality education for minorities. When quality education becomes a reality for all children, resources used for remedial education purposes can be reallocated to the educational benefit of all students.

GOALS

Within the framework of restructured schools, it should be possible by the Year 2000 to have an educational system that will deliver quality education to minority youth if we act now. Restructuring alone, however, will not be sufficient. We must ensure that minority students start school prepared to learn. To accomplish this, we must increase support for such programs as the Women, Infants, and Children (WIC) Program, double the participation in child nutrition programs, increase federal and state funding for child care programs so that all poor children can participate, increase the support of Head Start so that 100 percent of eligible children can participate, and invest in new approaches to involving parents in the education of their children.

Even with restructured schools, we must take additional steps to ensure that the academic achievement of minority youth is at a level that will enable them, upon graduation from high school, to enter the work force or college fully prepared to be successful and not in need of remedial education. Strategies include the elimination of tracking; the development of a set of core competencies, including computer literacy; promoting and supporting the learning of at least two languages by every child; stimulating and nourishing positive values; creating small learning

communities; implementing science and mathematics curriculum reforms; extending the school day and year to minimize summer loss and maximize exposure to mathematics and science; encouraging participation in community service programs; providing health education and on-site health services; and focusing on life skills.

Other educational goals that must be met if we are to ensure that minorities receive a quality education include:

- significantly increasing the participation of minority students in higher education with a special emphasis on the study of mathematics, science, and engineering;
- strengthening and increasing the number of teachers of minority students;
- strengthening the school-to-work transition so that minority students who do not choose college leave high school prepared with the skills necessary to participate productively in the world of work and with the foundation to upgrade their skills and advance their careers; and
- providing quality out-of-school experiences and opportunities to supplement the schooling of minority youth and adults.

Priority should be given to strategies to strengthen the transition to the world of work including providing summer and academic year internships and apprenticeships; doubling the capacity of the Job Corps; and expanding and improving basic education and training services under the Job Training Partnership Act.

ESTIMATED COSTS

To implement any of the recommended strategies in the nation's 16,000 school districts would require substantial new funding. For example, adding just one extra day to the school year in all of the districts combined would cost \$922 million. To add 40 days as we propose, would require \$37 billion alone. However, if we were to initially focus on the 25 largest predominantly minority schools systems with their approximately 4.2 million students, the annual costs for the additional two months of schooling would be approximately \$4 billion.

To fully fund Head Start, which currently reaches fewer than 20 percent of all eligible 3- to 5- year olds, would require an additional \$4.5 billion annually. To double the Job Corps would require an additional annual outlay of \$630 million. Full implementation of the recommendations in the Action Plan in the 22 largest predominantly minority school systems along with full funding of selected national priorities such as Head Start, the Job Corps, and Bilingual Education annually would require an additional

\$27 billion.

MEETING THE CHALLENGE

Despite its frequent failure to live up to its highest aspirations, the greatness of the United States has always derived from its ability to blend the strengths of very different kinds of people. It is perhaps the only country in history deliberately founded not on the past, but on the future it set out to achieve. The true gift of America is the ability to translate lofty goals into tasks that men and women could grasp and achieve. America has succeeded because it has been able to bring its most precious national resource to bear on the tasks at hand: a diverse and talented people.

The one force that has sustained and empowered all our people, has been the power of education. It has been our schools that have equipped individuals to take their places in the great work of transforming visions into realities. Minority children, by right and by virtue of their unlimited potential surely deserve their own role as visionaries and builders. The door to the future for every child is first and foremost the door to the schoolhouse.

Representative SOLARZ. Thank you very much.
Mr. Packer, please proceed.

**STATEMENT OF ARNOLD PACKER, SENIOR RESEARCH FELLOW,
HUDSON INSTITUTE**

Mr. PACKER. Thank you, Congressman Solarz.

I am in the unenviable position of being on one of those commissions that Congressman Scheuer wondered about. I come here as a senior fellow at the Hudson Institute, but will in the next week or two move over to be executive director of SCANS, which is the Secretary's Commission on Achieving Necessary Skills. William Brock will chair. And I think the Secretary would love it if we could all get done within a weekend at Airlie House or someplace else.

Representative SOLARZ. How about Greenbriar? [Laughter.]

Mr. PACKER. I would like to talk for a moment about the work we are completing at Hudson on Workforce 2000. Much of the material has already been made public. Indeed, there is a gap between what the schools are doing and what the country's economy needs. If we are going to grow at the 3 percent growth rate that is in the President's budget and in most people's plans for a fully competitive economy, we require an upgrading of 25 million Americans. We come to that by comparing our projection of the skills needed in the year 2000—assuming 3 percent growth—with the skills of 21- to 25-year-olds—as estimated by the Educational Testing Service. We have too many people who are qualified for low-skill jobs and not enough people qualified for higher skill jobs. If that continues, the economic maldistribution of income will continue to be poor, as will be our productivity growth and our economic well-being.

The report ends up with three recommendations. They are more technical than policies that require more money.

One recommendation is to define and measure the functional competencies required in the new workplace. As Tony Carnevale has said, things have changed since 1940 in most of the world, but perhaps least of all in the educational world. Many things are taught in 1990 as they were taught in 1940. And so, we have to see what the new skills are, and to obtain agreement on that.

Second, I think we need to begin to use technology. Education is an information industry. Every information industry has been transformed dramatically by technology which meant not only hardware, but training people to use it. We think that you need to use technology in education. We need to train teachers in how technology might best be deployed so that the personal attention that youngsters need is, indeed, given to them. Teachers should not be lecturing in what some people call drill and kill—kill the students' enthusiasm—kinds of activities.

Third, we need to develop efficient incentives for creating a coordinated system. I would like just to mention one. Today most of education is paid for on a dollar per instructional hour basis. That is, the Los Angeles Unified School District receives money from the State of California, and the payment is based on how much time the student spends there. As my colleague, Bill Johnston, has said, it is like paying for a restaurant meal depending on how long the

cook has kept the food in the oven and not on what the dish looks like when it reaches your table. And that has to change.

I have asked the following of some educators. Assume I could reduce the time it took for somebody, let's say an adult, to get through a program from 4 months to 3 months. If the same stuff were taught then the same school with the same number of teachers could produce one-third more education. The educators said it would not make any difference. There are only 365 days in a year. We get paid on a daily basis. If you could get them through twice as fast, three times as fast, the amount of money we get would be the same. There is no payment for competencies.

Which brings us back to the first recommendation which is that we need competencies defined, and that is what the SCANS Commission—that William Brock will chair—is intended to do. Attached to my prepared statement is a list of the members. The first meeting is on the 18th of this month. We hope to have a report not in a weekend, but in a year. I did not think it is another study. It is really an attempt to say what is it that people should have when they leave high school to meet the requirements that Ms. McBay just stated?

Thank you.

[The prepared statement of Mr. Packer follows:]

PREPARED STATEMENT OF ARNOLD PACKER

Mr. Chairman: Thank you for the opportunity to participate in these important hearings.

I appear before you this afternoon as a Senior Research Fellow for the Hudson Institute where I was co-director of the Work Force 2000 project. I will spend a few minutes discussing the results of our latest work on that project which is drawing to a close.

My position with the Institute is also coming to a close. I will be resigning this month to become Executive Director of "Secretary [Dole's] Commission on Achieving Necessary Skills" or SCANS. The latter part of my testimony will describe the Commission.

Preparing Work force 2000

The original results of the project were published almost three years ago as WorkForce 2000: Work and Workers for the 21st Century. The report documented the changing demographics of our labor force and the increasing skill requirements of our transforming economy. The report concluded with six recommendations, including a call to improve the educational preparation of all workers.

At about the time that WorkForce 2000 was published my co-author, Bill Johnston, and I wrote a op-ed article that appeared in the Washington Post entitled "Watch Out for the Coming Boom." It suggested that a long period of non-inflationary growth was likely if the recommendations were followed. That prediction has

been fairly accurate. However, in the last year or so we have seen the federal reserve move to slow the economy from about 3% growth to 2% in order to forestall inflation. Over the 1985-90 period the economy has performed half-way between the low and base case forecasts of WorkForce 2000.

A 3% growth path is built into the Administration's long-range forecast and is consistent with a competitive world-class economy that will provide good jobs at good wages for American workers. This growth path is unattainable without substantially improving the skills of the U.S. workforce. Thus, a failure to restructure education will keep the economy from its potential of 3% growth and compromise our long-term goals.

Since 1987 my work has focussed on a portion of the educational challenge and will be reported in a forthcoming Hudson Institute publication, Preparing Workforce 2000. The report compares the skills needed for a 3%-growth economy and the skills of 21 to 25 year olds as reported by the Educational Testing Service. There is a gap. Twenty-five million workers need to be upgraded in the 1990's to meet the 3% goal. On a scale from one to six (developed by the Department of Labor), young people have a language skills level of 2.6. New jobs, in a 3%-growth economy, will require skills of 3.6.

The attached table illustrates the problem in occupational terms. Too many of the young people are qualified for such jobs as

THE SKILLS GAP

		<u>Net New Jobs*</u>		
Young Workers**				
<u>Language of Skill Level Population</u>	<u>Selected Classifications</u>	<u>New Jobs*</u> (000's)	<u>Share of New</u> (%)	<u>Share Jobs</u> (%)
Less than 2.0				
1.15	Helpers, Laborers	(205)		
1.64	Machine Operators	(-179)		
1.71	Extractive Workers	(-29)		
	Other	(-438)		
	SUBTOTAL	-441	- 1.7	1.0
2.0 to 2.75				
2.01	Transportation	(751)		
2.21	Construction	(595)		
2.66	Mechanics	(966)		
2.58	Service	(5957)		
2.67	Plant/System Operations	(36)		
	Other	(1478)		
	SUBTOTAL	9783	37.7	78.3
More than 2.75				
2.90	Admin. Support	(3620)		
3.56	Marketing & Sales	(4151)		
4.02	Technicians	(1389)		
4.42	Managerial	(4284)		
5.13	Health Diagnosis and Treating	(1303)		
5.79	Lawyers and Judges	(326)		
	Other	(1535)		
	SUBTOTAL	16608	64.0	
20.7				
	TOTAL	25950	100.0	100.0

* Net job growth 1984-2000 (Workforce 2000 Base Case)

** Share at specified skill level from the NAEP Survey of Young Adults

helpers and laborers (skill level 1.15) or service workers (skill level 2.58), while a healthy economy requires more marketing and salespersons (skill level 3.56) and technicians (skill level 4.02).

The gap can be divided among its causal forces. More than half of the mismatch results from the increasing demands of the new workplace. Only about 10% is due to changing demographics. The remaining third represents the normal difference between young and experienced workers.

The current education system will neither keep the U.S. internationally competitive nor provide a rising standard of living. The entire system -- from pre-school toddlers to graduate education and continuing education of professionals -- needs to be improved. However, the falling wages of those who have not attended college indicates that it is especially important to upgrade their functional workplace competencies.

Wage increases have slowed to a crawl since 1973. Adjusted for inflation, average hourly earnings were lower in 1989 than they were in 1973. The wages of male high school dropouts, however, fell 42% between 1973 and 1986. Wages of those with a high school diploma, but no more education, fell by 28%.

These non-college-bound students have been called "the forgotten half". The falling wages of the forgotten half may reflect their falling productivity. If that is so then much of the overall slowdown in the nation's productivity growth comes from the neglect of the non-college-bound.

Thus, the new Hudson report projects competency deficits for

25 million Americans in the 1990's. It recommends concentrating efforts on what may be called the workplace competency (WPC) system: the high schools and "second chance" institutions that prepare students unlikely to go to a four-year college for work. The recommended solution comes in three parts:

1. Defining and measuring the functional competencies required in the new workplace.
2. Using technology and trained teachers to allow students to learn these competencies in motivating and individualized ways.
3. Developing efficient incentives for creating a coordinated, high-quality, system.

SCANS

On February 20, 1990 Secretary Dole announced the formation of SCANS, the Secretary's Commission on Achieving Necessary Skills. The purposes of the Commission are similar to those of the first of these three recommendations. In April the Secretary announced that the Honorable William Brock, who initiated the WorkForce 2000 project when he was Secretary of Labor, had agreed to chair SCANS. Ms. Dole also announced the 30 members of the commission. Their names are attached to this testimony.

The commission has four objectives:

A. Define skills for work readiness. Dividing the job-market into a few industry or occupationally-based families of jobs, what competencies or skills are needed to obtain, advance in, and retain

a job? I should emphasize that we are not talking about narrow vocational skills but generic skills that will be valuable for millions of workers; for example, the ability to follow written and oral instructions or the ability to develop and follow a schedule and budget.

B. Establish acceptable levels of proficiency for these skills. If, for example, taking a phone message accurately is a skill needed for the office-job cluster what error rate is unacceptable? How complicated a budget must the student comprehend?

C. Develop criteria for measuring these skills. How can students and (separately) education programs be assessed?

D. Establish ways to disseminate the results to education and business. The SCANS report will not be, I emphasize, a national curriculum. Curricula are a state and local responsibility. Hopefully, school boards and school superintendents will find the SCANS results useful if they are part of the process and know of the results. What on-going processes are needed to call forth the action that must be taken by students, employers, and the education community?

SCANS will seek to help the nation achieve its economic goals by improving the nation's competitiveness and increasing the productivity and real wages of the non-college bound or "forgotten half." SCANS will also help the nation reach four of the six goals declared in President Bush's State of the Union message and described more fully by the National Governor's Association:

1. Reduce the dropout rate. SCANS can help by making school curriculum more relevant, by facilitating workplace-based education, and by changing tests from a screening device to an assessment-and-remedy device.

2. Enable 12th graders to demonstrate that they have the competencies adequate to perform entry level jobs. SCANS can help by defining the competencies and helping to develop assessment tools that can provide meaningful certification of competencies.

3. Raise achievement in math and science. SCANS can help by determining the math and science skills needed on the job and developing assessment tools. The objective is to influence curricula in these two areas (e.g., do employers prefer competency in statistics to trigonometry?) and motivate all students to study these subjects because they are relevant to the workplace.

4. Insure that all adults are literate and have the skills needed to maintain employment. SCANS can help by defining the skills needed to obtain a job, benefit through training, and climb a career ladder. High schools, "second chance" programs and workplace-based learning will then have clear-cut objectives.

The first meeting of the Commission is scheduled for May 18, 1990. Although, the Commission has a life of two years we anticipate a first report in approximately 12 months from that first meeting.

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Representative SOLARZ. Thank you very much.
Ms. Simms, please proceed.

STATEMENT OF MARGARET C. SIMMS, DEPUTY DIRECTOR OF RESEARCH, JOINT CENTER FOR POLITICAL AND ECONOMIC STUDIES

Ms. SIMMS. Congressman Solarz, I appreciate the opportunity to testify before the committee this afternoon. In my prepared statement, I addressed only a few of the questions that were in your invitation.

Over the course of the afternoon, we have heard many times about the demographic changes and their implications for the labor force. Just to put out a few numbers, the most recent labor force projections by the Bureau of Labor Statistics show that the black labor force is expected to grow at twice the rate of the white labor force, and the Hispanic and Asian labor forces are expected to increase between three and four times as rapidly. At the margin, that makes more of a difference than it does in terms of looking at the overall composition of the work force. So, entry-level workers are more likely to be minority than has been the case in the past.

Ms. McBay has talked about the failure of the education system and the extent to which minorities fail to make it through the system at the rate they should. This failure has serious implications for national security and for national productivity. It also has implications for individual well-being and the contributions that the individuals can make to the Nation and to their community.

To give you some idea of the importance of education, I believe that earlier testimony talked about the extent to which lack of postsecondary education reduces employment and earnings opportunities. Certainly that is already evident. Over the last 15 years, there has been a decline in real earnings among young males regardless of race, but the serious earnings drops have been borne by black males, particularly those without a high school degree. A recently completed study by the National Academy of Sciences estimates that black males will spend approximately a third of their working years either unemployed or out of the labor force. That is clearly a waste in terms of the Nation's well-being.

I would like to talk just a little bit about training programs, since we have not heard nearly as much about that. During the first part of the past decade, the Federal Government redesigned many of its education and training initiatives. They reduced the level of funding and left more discretion to the States.

Emphasis within JTPA was on increased efficiency, and on immediate postprogram job placement. And, indeed, by the standards that were set, the program did achieve many of its goals. However, there was a serious cost in making that achievement, and that is that the program was less likely to serve those with serious learning and skill deficiencies, and that was a special problem for youth and minority youth who had low levels of basic skills.

There has been a change in the nature of these programs and a new emphasis on trying to combine basic skills, basic and remedial education, with job specific skills. However, this is not inexpensive. As earlier testimony indicates, the JTPA system has been serving

about 6 percent of those eligible. Most generous estimates for youth are maybe 13 percent, and those are based on some dubious assumptions. If we are going to make a serious dent in the second chance programs, it is going to require additional resources.

Just to come back to the issue of restructuring schools, it is certainly true that some aspects of restructuring will not require additional funds, but it is hard to believe that we can make a serious improvement without adding money and without adding money on the part of the National Government. I guess our highest level of participation by the Federal Government at the elementary and secondary level was achieved at the end of the 1970's with about 10 percent of the funds spent in elementary and secondary education provided by the Federal Government. But for some school districts, the poorest districts, the ones with highest concentrations of minority students, those funds were much larger percentages. Some estimate that for some districts it was as much as one-third of the funds that they received.

While there is a tendency to look at the State governments as the sources of funding for education and for some of the training under work-welfare programs and other initiatives, it is not within the ability of some States and some States are not willing to put in the resources that are necessary. If the Federal Government does not participate, the benefits will accrue to those individuals who are residents of the few States that are willing to put in the resources necessary.

Thank you.

[The prepared statement of Ms. Simms, together with attachments, follows:]

PREPARED STATEMENT OF MARGARET C. SIMMS*

The Role of Education and Training in
Our Nation's Economic Security

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to address the Joint Economic Committee on the role of education and training in our nation's economic security. It is not possible to address all of the questions raised in the letter of invitation during the time allotted to me, so I have chosen to focus on the following:

- Why are our current education and job training systems failing to meet the needs of certain population groups and how does that affect our economic and political security?
- Should job training be a public or private responsibility?
- What current education and training programs are most effective and would benefit from additional resources?
- What are the Federal government's responsibilities in the U.S. education and training system?

The Preparation of the Future Workforce

In the past few years, a great deal of emphasis has been placed on the changing demographics of the population and the implications of those changes for the workforce. The most recent labor force projections by the Bureau of Labor Statistics show that the black labor force is expected to grow nearly twice as fast as the white labor force and the Hispanic and Asian labor forces are expected to increase between three and four times as

*The author is Deputy Director of Research at the Joint Center for Political and Economic Studies. This testimony represents her personal views and does not necessarily reflect those of the Joint Center or its sponsors.

rapidly.¹ The result, a labor force in which immigrants, native-born minorities and white women will be over 80% of the entry workers by the year 2000, is a statistic recited by many corporate leaders and public policy makers. However, the implications of these statistics are being discussed by only a small proportion of the group.

The failure to come to grips with the implications of the changing demographics will have serious repercussions for the nation. Few minority communities have the private or collective resources to pay for the investment in human capital that is necessary. These deficiencies are readily apparent in the educational attainment and employment status of many in the population groups that are growing segments of the work force. For example, while the median educational level of blacks has increased rapidly in the post-Civil Rights era, the rate of college attendance and completion has dropped over the past decade. Moreover, high school dropout rates among blacks and Hispanics in inner cities is extremely high and the average achievement level of those who persist to graduation falls below national norms.

The failure to improve educational opportunities for all portions of our population will have serious consequences for the nation. The labor market projections for the future show not only changes in the work force, but changes in the nature of the

¹Bureau of Labor Statistics, Monthly Labor Review, November 1989 (Washington, D.C.: Government Printing Office, 1989).

jobs that will be available. A larger proportion of the jobs will require some postsecondary education, especially the jobs that pay high wages. The growing importance of education beyond high school has already been revealed in the decline in real wages over the past 15 years for young males without any postsecondary education. While the drop in real wages was most severe for black males, white and Hispanic males suffered real wage losses as well.²

Government Responsibility for Training

These somewhat alarming statistics call for government action for several reasons.³ While most of the gains from education and training accrue to either the worker or the employer, there are several social objectives that would lead the government to participate in the training process. When there are sufficient numbers of skilled workers in the available labor pool, expansion in employment can take place with minimal disruption to production. However, when there is a shortage of workers, production is disrupted and labor costs increase as employers bid up wages to attract the limited number of workers available. While much of the shortage may disappear in time, the

²Andrew Sum and Neal Fogg, "The Changing Economic Fortunes of Young Black Men in the New American Economy of the 1980s." Testimony before the House Select Committee on Children, Youth, and Families, Washington, D.C., July 25, 1989.

³This section of testimony draws heavily from a paper on "The Effectiveness of Government Training Programs," completed for the Department of Labor, Commission on Workforce Quality and Labor Market Efficiency, June 1989.

economy suffers from lags in production and that affects the domestic Gross National Product and reduces the United States' competitiveness abroad. Therefore, society would benefit if the government facilitated the process by which workers upgraded existing skills and acquired new ones. This may be especially true if employment expansion is taking place in small firms which may not have the working capital or management cadre to provide training for their workers.

Another societal objective may be to assist individuals who could not otherwise obtain employment at wages high enough to make them self-sufficient. Individuals who lack basic or job-specific skills have difficulty obtaining moderate or high wage jobs. The society then bears a double burden. The productive work effort is lost and the government frequently pays costs in terms of public assistance income and through crime and other anti-social behavior. During the past fifteen years, workers who did not have the basic skills and training to take new job opportunities were increasingly likely to leave the labor force. This group was disproportionately composed of workers with less than a high school education.⁴

⁴Margaret C. Simms, "Black Participation in the Post-World War II Economy," a discussion paper prepared for the Committee on Policy for Racial Justice, Joint Center for Political Studies, April 1986.

The Cost and Effectiveness of Training Programs

During the first part of the past decade, the Federal government redesigned many of its education and training initiatives, reducing the level of funding and leaving more discretion to the states. To promote efficiency in the training programs, an increased emphasis was placed on reduced training periods and post-program job placement. These standards had an adverse effect on enrollment of individuals with serious skill deficiencies. This problem was particularly acute for youth, when other outcomes aside from immediate employment might be preferred, especially for those with low basic skills.

In the past two or three years, renewed emphasis has been placed on providing more intensive programs for youth, such as JOBSTART and STEP which combine basic education with skills training. Some of the same principles are being applied, at least in principle, for portions of the disadvantaged adult population. Unfortunately, this policy approach is quite expensive. Past programs, which have averaged \$ 1,500 per person, are estimated to have served between 5 and 13% of the eligible population. The more intensive initiatives that have been shown to work will cost considerably more. If we are to reach greater proportions of those in need of services, the financial resources devoted to this effort must be greatly increased.

Needed Improvements in the Educational System

In the long run, improved employability will come from an educational system that is more responsive to the needs of a diverse student population and more attentive to the needs of the labor market. Reform of the public school system has been under discussion for most of the past decade. The pursuit of excellence, however, has not always included appropriate attention to the minority students who constitute the majority in many school districts. As noted by the eminent black scholar, John Hope Franklin in a policy statement on education for black children:⁵

For economic reasons, if no other, this society will have to pay far greater attention to the ethnic and cultural diversity of students currently enrolled in our public schools and provide them with the tools they need to become productive citizens.

The Need for Federal Funding

It is true that "restructuring" schools by changing the way schools are organized and the way students, teachers, decision-makers, and parents interact is an important feature of school reform, but improved educational opportunity cannot be achieved without increasing the financial resources devoted to the endeavor. Moreover, some substantial part of the resources must come from the Federal government. While the national government provided only a small proportion of the funding for elementary

⁵Committee on Policy for Racial Justice, Visions of a Better Way: A Black Appraisal of Public Schooling (Washington, D.C. : Joint Center for Political Studies, 1989).

and secondary education in the late 1970s, it provided as much as one-third of the funds for the poorest school districts.⁶ In addition, reviews of state and local initiatives in both education and training, reveal wide variation in the willingness and ability of states and localities to contribute to education and training for disadvantaged populations. The Federal government must ensure that the services received by its citizens are not extremely sensitive to geographic location.

In 1988, the Joint Center published a volume on Black Economic Progress, which identified several social programs that were crucial for human resource development. In taking note of the workforce 2000 issues mentioned at the beginning of my testimony, the Economic Policy Task Force of the Joint Center states:⁷

For these new workers to make a successful entrance into the workforce, the existing employment and training programs will have to be strengthened...For children and youths, the basic educational system needs to be improved so that they can make the transition to work with skills in reading, writing, mathematics and logic that will provide the foundation they need to adapt to change in the labor market of the future.

What is at stake, they note, is not just the future of blacks, but the future of all Americans.

⁶June A. O'Neill and Margaret C. Simms, "Education," in The Reagan Experiment edited by John L. Palmer and Isabel V. Sawhill (Washington, D.C.: The Urban Institute, 1982).

⁷Margaret C. Simms (editor), Black Economic Progress: An Agenda for the 1990s (Washington, D.C.: Joint Center for Political Studies, 1988).

Falling Behind Despite Employment Gains

*While Blacks Gained Jobs in 1988,
They Made Little Advancement Compared to White Workers*

by Dr. Margaret C. Simms

Recent reports from the Department of Labor bear good news, at least on the surface: in 1988 black unemployment reached its lowest level since 1974, with black workers gaining jobs at a faster rate than whites. Nevertheless, as in past years, there is a flip-side to these reports. Blacks lagged far behind whites in employment, remaining two-and-a-half times as likely to be unemployed.

Furthermore, the increase in jobs did not bring improvements in the standard of living for many black workers and their families. For even when black Americans worked full-time, a significant proportion were unable to earn enough to keep their families out of poverty. Thus, while some gains were made in 1988, the economic status of black workers and their families remained precarious. And neither newly passed federal legislation, such as the Family Security Act of 1988, nor legislative proposals to raise the minimum wage are likely to make a significant reduction in poverty among lower-income workers.

Falling Behind Despite Gains

During 1988, the nation's sixth year of uninterrupted economic expansion, approximately 2.5 million jobs were added to the U.S. economy. Almost 14 percent of these new jobs (349,000) were filled by black workers. (Hispanics filled an even higher percentage of these jobs—18 percent—although they make up a smaller share of the labor market). The combination of new and preexisting jobs held by blacks resulted in a higher proportion employed in 1988 than in any year since the Bureau of Labor Statistics began tabulating such data separately for blacks in 1972. In spite of this, employment for much of the black community still falls far behind white employment.

The unemployment rate for the nation as a whole fell from 6.2 percent in 1987 to 5.5 percent in 1988. The rate fell further for blacks than for whites—though from a much higher starting point—dropping from 12.7 to 11.7 percent while the white rate dropped from 5.4 to 4.7 percent. (See table 1.)

The unemployment rate is but one measure of labor market position. Since unemployment rates are affected by

withdrawal from the labor market, a more useful measure is the percentage of the population that holds jobs. Using this measure, differences are more easily observed. While employment among black women in the prime working years (between the ages of 25 and 54) is similar to that for white women (67.0 percent compared to 69.9 percent), black adult men, by contrast, are significantly less likely to be holding jobs than their white counterparts. Nearly 91 percent of white men in this age group are employed, while the corresponding black rate is 80 percent. Racial disparities in employment among both male and female workers were even more severe for teenagers (between the ages of 16 and 19) and young adults (ages 20 to 24). Black teenagers, in fact, made few labor market gains during 1988 (see "Black Youth Face an Uncertain Jobs Future," *Focus*, April 1988).

Job Quality and Wages

Being employed is not the only factor affecting the well-being of the worker and his or her family. Earnings, benefits, and opportunities for career advancement are also important. Here again, blacks are not as well situated as whites. In 1988, nearly 50 percent of employed blacks were grouped in the occupations of service worker, operator (such as machine operator and truck driver), fabricator (such as welder or assembler), or laborer. These

(Continued on page 6)

Table 1. Unemployment Rates of the U.S. Population by Race, Gender, and Age, 1988

	White			Black		
	Men	Women	All	Men	Women	All
Total Population						
(age 16 and over)	4.7%	4.7%	4.7%	11.7%	11.7%	11.7%
Ages 16 to 19	13.9	12.3	13.1	32.7	32.0	32.4
Ages 20 to 24	7.4	6.7	7.1	19.4	19.8	19.6
Ages 25 to 54	3.8	3.9	3.9	8.9	9.4	9.2

Source: U.S. Department of Labor, Bureau of Labor Statistics, "Employment and Earnings," January 1989.

Dr. Simms is an economist and is a deputy director of research at the Joint Center for Political Studies.

Black Employment

(Continued from page 5)

occupations tend to pay lower wages and offer less job stability than most others. The next largest segment of black workers is found in the administrative support occupations (such as clerk typist), where wages are also modest. Less than 20 percent of black workers were employed in managerial, professional, and technical occupations, where not only are salaries higher but opportunities for additional training and upward mobility are greater.

Few black workers earned enough in 1988 to raise their families above the poverty line. This was especially true for

families with only one adult wage earner. For female-headed families that earned income, the median weekly earnings (including wages from all members) were only \$291 a week. Even among those that enjoyed full-year employment, half brought in incomes that fell within 125 percent of the poverty line. Black married couples hardly fared better when they had only one wage earner in the household. Median family earnings for this group were only \$281 a week, 65 percent of the corresponding earnings for similar white families. On average, black families moved into the middle-income category only when they had two or more people bringing home an earned income.

(Continued on page 8)

Low-Wage Earners and Poverty

It is sometimes argued that working at a low-wage job does not necessarily mean a low living standard, since many low-wage workers are in families where others also work. Though this is true in principle, it is far more likely to be the case in white families headed by men than in families of other types. Among black families, both income and the likelihood of employment are lower. And among all families with employment income, black families have lower earnings than white families. Data from the Bureau of Labor Statistics show that in 1988, one-earner families were more likely than others to be dependent on poverty or near-poverty weekly earnings.

Many black workers earn poverty-level wages even in the high-wage industries, according to a study by the Institute for Women's Policy Research (IWPR), a Washington-D.C. based organization devoted to research on issues of special concern to women. In an ongoing study with the Displaced Homemakers Network conducted for the U.S. Department of Labor (DOL) and using data from the Census Bureau's 1984 "Survey of Income and Program Participation" (the most recently available), the Institute identified how close workers' earnings came to the poverty level (\$10,600 in 1984) for a family of four even when they worked full-time, year-round. The researchers divided employment into four wage categories: *poverty wage* (\$5.30/hour, which equaled the poverty income in 1984 if the worker was employed full-time, full-year); *above-poverty low-wage* (\$5.31-7.95/hour, which would put the worker between 100 and 150

percent of poverty); *low-moderate wage* (\$7.96-10.59/hour, which was 150-200 percent of poverty); and *moderate-and-above wage* (\$10.60/hour and above).

The extent to which black workers, both men and women, are crowded into low-wage jobs is striking. Sixty-five percent of black men were employed in the two lowest wage categories in 1984, while over 80 percent of working black women held jobs in these categories, placing them all at or just above poverty wages. Even in manufacturing, which is commonly thought of as a high-wage industry, similar percentages hold true. And in some industries—those with generally low wage structures—the vast majority of black workers held jobs earning poverty or near-poverty wages.

These wage levels suggest an especially serious threat to the welfare of children. For all workers, regardless of race, those earning poverty-level wages are the most likely to live in households with children. The study shows that black children were especially likely to be in such families. The majority of black heads of household earned wages at or just above the poverty level in 1984. Seventy-six percent of black married men with nonworking wives earned \$7.95 or less an hour, while 86 percent of single black men with children had similar earnings. Among black women the proportions were even higher: more than 66 percent of those with children and no other earner in the household had wages of \$5.30 or less, while another 20 percent earned near-poverty wages.

Table 2. Employment by Wage Level for Black Workers in Households With Children Present, 1984 (numbers in thousands)

	Number in Labor Force	Below Poverty Low Wage		Above Poverty Low Wage		Low Moderate Wage		Moderate & Above Wage	
		No.	%	No.	%	No.	%	No.	%
BLACK MALES									
Married With Children									
Dual Earners	1,179	303	(25.7)	348	(29.5)	221	(18.7)	307	(26.0)
One Earner	822	409	(49.8)	217	(26.4)	107	(13.0)	89	(10.8)
Single With Children	498	315	(63.3)	111	(22.3)	28	(5.6)	45	(9.0)
Total With Children	2,499	1,026	(41.1)	676	(27.1)	356	(14.2)	441	(17.6)
BLACK FEMALES									
Married With Children									
Dual Earners	1,144	528	(46.2)	362	(31.6)	138	(12.1)	116	(10.1)
One Earner	489	375	(76.7)	87	(17.8)	19	(3.9)	8	(1.6)
Single With Children	1,653	1,064	(64.4)	395	(23.9)	111	(6.7)	83	(5.0)
Total With Children	3,286	1,967	(59.9)	844	(25.7)	268	(8.2)	206	(6.3)

Source: Institute for Women's Policy Research, based on tabulations from the Census Bureau's 1984 Survey of Income and Program Participation.

Black Employment

(Continued from page 6)

Policy Implications

Recently adopted and proposed legislative initiatives aimed at lifting poor families out of poverty will only be of limited value. Bills H.R.2 and S.4, passed separately by both houses of Congress to increase the minimum wage, would still leave families supported by one minimum-wage worker in poverty. Their proposal of \$4.55 an hour would result in wages that would still fall 20 percent below the 1988 poverty level for a family of four. (See box entitled "How the Poverty Level Is Determined.") Naturally, any rise in the minimum wage would be beneficial, allowing poor families to narrow the gap between their income and the poverty level. But the proposed increase would not move families out of poverty altogether.

Furthermore, black families on welfare, particularly those headed by women, will be unlikely to work their way out of poverty through the provisions of the Family Security Act passed by Congress last year. This act is designed to remove long-term welfare dependents from the welfare rolls through employment and training programs (see "welfare: Dependency vs. Reform," *FOCUS*, July 1988). However, if the jobs that women completing these programs are able to obtain prove to be anything like the jobs that black working women currently occupy, their families will remain mired in poverty for years to come. ■

How the Poverty Level Is Determined

Families and related individuals are classified as being above or below the poverty level using the poverty index, which originated at the Social Security Administration in 1964 and was revised by the Federal Interagency Committee in 1969 and 1980. The poverty index is based solely on money income (earned or otherwise) and therefore does not reflect the receipt of noncash benefits like food stamps. It reflects the different food purchasing requirements of families, based on their size and composition, derived from federal studies of food consumption in 1955 and 1961. Those early studies showed that American families spent about a third of their income on food. (The poverty level for families was therefore set at three times the minimal cost of an adequate food budget.) The index is adjusted annually for changes in the cost of living.

Some analysts have suggested, however, that this method of calculating the threshold is no longer appropriate because of the heavy reliance on an emergency food budget that was not meant to be used indefinitely. The poverty thresholds for recent years are shown below. (Note: An individual working full-time at the current minimum wage would earn approximately \$7,000 a year.)

	Family of Three Persons	Family of Four Persons
1986	\$8,737	\$11,203
1987	9,056	11,611
1988	9,431	12,091

Source: U.S. Bureau of the Census.

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Visions Of A Better Way

A Black Appraisal Of Public Schooling

*Preface by
John Hope Franklin*

An Essay by the Committee on Policy for Racial Justice
Sponsored by the Policy Center for Political Studies, Princeton



**Visions Of
A Better Way**



Visions Of A Better Way

A Black Appraisal Of Public Schooling

*Preface by
John Hope Franklin*



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The Joint Center for Political Studies is a national nonprofit institution that conducts research on public policy issues of special concern to black Americans and promotes informed and effective involvement of blacks in the governmental process. Founded in 1970, the Joint Center provides independent and nonpartisan analyses through research, publication, and outreach programs.

Opinions expressed in Joint Center publications are those of the authors and do not necessarily reflect the views of the other staff, officers, or governors of the Joint Center or of the organizations supporting the Center and its research.

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The Committee on Policy for Racial Justice: Mission and Objectives

The Committee on Policy for Racial Justice conducts independent intellectual inquiry in search of solutions to problems confronting black Americans. In that search the committee members rely on the sage observations made by wise and courageous black spokesmen who have preceded them. One was Frederick Douglass who said, more than a century ago, "If we are ever elevated, our elevation will have been accomplished through our own instrumentality. . . . No People that has solely depended upon [outside] . . . aid . . . ever stood forth in the attitude of Freedom."

Another was William E. B. Du Bois who declared, more than a half century ago, that the progress and ultimate positive resolution of the struggle for racial justice in the United States would depend on the contributions of blacks themselves, who would use their knowledge and skills—in economics, in social policy, in public administration, and in political theory and practice—as weapons in the ongoing struggle for social justice.

The third trenchant observation was made by a great modern leader, Martin Luther King, Jr., who said, "It is not a sign of weakness, but a sign of high maturity to rise to the level of self-criticism . . . [which means] critical thinking about ourselves as a people and the course we have charted or failed to chart during this period."

In this spirit, the Committee meets periodically to review the condition of blacks in American society, to inform itself and others about progress and failures in the struggle for racial equality, and to seek to chart a course that will advance the cause of justice for all.

Foreword

Seven years ago, the Joint Center's Committee on Policy for Racial Justice held its first meeting at Tarrytown, New York, to reflect on the condition of blacks in American society. Since that time, this unique group of black scholars has convened eleven meetings and produced two essays—*A Policy Framework for Racial Justice*, which delineated areas of urgent concern for the black community, and *Black Initiative and Governmental Responsibility*, an examination of the often complicated relationship between blacks and the federal government.

The second of these essays—published by the Joint Center in 1987—received considerable public attention. "The report of these scholars," wrote *Washington Post* columnist David Broder, "is a major contribution to framing a debate on the black community's needs, and can return those issues to the place they deserve on the national agenda."

We issue this third essay, *Visions Of A Better Way: A Black Appraisal Of Public Schooling*, at a time when education has become a major concern of the American people. We hope that national, state, and local governments, as well as corporations and others interested in raising educational standards and enhancing educational equity, will find this a useful document.

The Joint Center is indebted to the members of the Committee for their contributions to the publication of this essay, to Catherine Iino for her editing, and to Constance Toliver for styling the document.

Eddie N. Williams
President
Joint Center for Political Studies

Preface

Of all the problems confronting the black community today, none are more critical to its future than those related to education. The "interlocking effects of deprivation," a phrase used by President Lyndon Johnson in 1965, will not be resolved unless the black community commits itself *en masse* to a dramatic improvement in the quality of public education available to its children. Economic and social progress in the United States has long been rooted in access to quality education. What worked so well for millions of immigrants must at last be made to work for black Americans.

It is this subject which we address in our essay, the third in a series of occasional papers that seek to explore new avenues for improving the lives of black Americans. Much has been written on education by experts and commentators, based on research, observation, opinion polls, interviews, and analyses, and yet our public school system continues to fail large segments of our population. This is not because as a society we are ignorant of what needs to be done or even how to do it, but because for one reason or another we have not been willing to attach the highest priority to education. Unless we do so, millions of black youngsters will remain deprived of the skills they need to function successfully in today's environment.

One of the most thoughtful and distinguished scholars working in this field is Dr. Sara Lawrence Lightfoot, professor of education at Harvard University and a member of the Committee on Policy for Racial Justice. We are fortunate indeed that she was willing to provide the leadership and expertise required to conceptualize and write this essay. With the collaboration of her colleague, Dr. Michael Fultz, she prepared the original document for discussion by the Committee and then skillfully meshed the views and ideas of the members into a coherent whole.

Our essay challenges the excuses made by those who try to rationalize or justify the failures of a public school system which prides itself on being an important vehicle for upward mobility within society and on being the foundation of American democracy. We do not accept any of the facile arguments that seek to evade responsibility for the chronic inequality in our system of education. Second-class schooling for black students, based frequently on low teacher expectations, remains the norm in far too many schools. This phenomenon as well as other barriers to educational achievement are examined in detail in our essay.

In looking at problems facing black students, we intended not only to identify and define these problems but also to search for models of success—schools that are able to educate the much broader, more heterogeneous student population now enrolled in our public schools. We found that such institutions do exist and that one of their common characteristics is a school environment in which students, parents, teachers, principals, and the community are active participants.

Significant changes are taking place in school systems around the country. More and more urban schools have become predominantly black in the composition of the student body, teaching staff, and administrators. Roughly 1,580 blacks currently serve as school board members and more than 125 as school superintendents. Accession to office by blacks, however, in no way guarantees that they will be able to bring about significant changes quickly or easily, since political power and economic resources frequently remain firmly rooted in the old, mainly white power structure. But the black community must insist on educational excellence for its children, regardless of who is in charge of the system.

Demographic realities point toward a work force that by the year 2000 will look very different from today's. For economic reasons, if no other, this society will have to pay far greater attention to the ethnic and cultural diversity of students currently enrolled in our public schools and provide them with the tools they need to become productive citizens. It is encouraging to know that the black community's

concern about the education of its children is shared by at least some of America's most influential political, corporate, and industrial leaders.

This essay should make it clear that we expect to be active participants in the accelerating national debate on the future of public education. We are eager to share our recommendations for reforms with other concerned individuals, particularly black leaders. We identify three interconnected areas in which progressive educational reform can be achieved:

- recognizing the centrality of human relationships;
- eliminating barriers to effective teaching and learning;
- mobilizing physical and political resources.

But the bottom line is that schools must assume the responsibility of educating all children, regardless of racial, ethnic, social, or economic background.

We hope you will find this essay a useful and persuasive document and will share our determination to pursue a radical improvement in the quality of American public education.

John Hope Franklin
April 1989

How many effective schools would you have to see to be persuaded of the educability of poor children? If your answer is more than one, then I suspect that you have reasons of your own for preferring to believe that basic pupil performance derives from family background instead of the school's response to family background.

—Ronald Edmonds, 1979

Introduction

We hold this truth to be self-evident: *all black children are capable of learning and achieving.* Others who have hesitated, equivocated, or denied this fact have assumed that black children could not master their schoolwork or have cautioned that blacks were not “academically oriented.” As a result, they have perpetuated a myth of intellectual inferiority, perhaps genetically based. These falsehoods prop up an inequitable social hierarchy with blacks disproportionately represented at the bottom, and they absolve schools of their fundamental responsibility to educate all children, no matter how deprived.

Affirming the intellectual capability of black youth is a political act, because the promise of equal opportunity and participatory democracy in the United States depends on an egalitarian view of human potential. Issues of black academic ability, social justice, and community empowerment are thus inextricably linked. Activism on behalf of better public education can provide a sense of purpose for black communities throughout the nation.

And what we must demand is this: that the schools shift their focus from the supposed deficiencies of the black child—from the alleged inadequacies of black family life—to the barriers that stand in the way of academic success. Since the concept of the “culturally deprived child” emerged in the early 1960s, far too much attention has been paid to the character-

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istics of black youth, particularly their deviations from mainstream norms, rather than to the structural mechanisms through which schools replicate the divisions of the broader society.¹ We do not discount the effects of poverty, racism, and segregation on individuals. Societal hostility and neglect have taken a tremendous toll upon our people; many of us have internalized social pressures as self-doubt or even in pathological responses, as scholars E. Franklin Frazier and Kenneth Clark and writers Richard Wright, Lorraine Hansberry, and James Baldwin have vividly shown.² Yet scattered examples of effective schooling for poor and minority children, a few—often unheralded—intervention models, and countless instances of individual accomplishments convince us that the essential problem lies not with the academic potential of black children but with the unproductive institutional arrangements, lowered expectations, and narrow pedagogical processes that characterize the American educational system.³

The late Ron Edmonds, a leader of the effective schools movement, wrote in 1979, "Repudiation of the social science notion that family background is the principal cause of pupil acquisition of basic school skills is probably a prerequisite to successful reform of public schooling for children of the poor."⁴ We heartily concur. Black families, like all others, exert a critical influence on the development of their children's character, personalities, and general orientation to life and learning. But the promise of American education is to take children as it finds them and educate them. It is the school's responsibility to overcome those social barriers that limit academic progress.

American schooling in general has again become a topic of hot debate and intense criticism. American children are lagging behind children of other countries in academic achievement, at a time when higher and higher levels of skills are needed for national economic advancement. In the new, post-industrial, service and information society, achieving productive employment, performing contemporary tasks, and making informed social, economic, and political decisions depend more than ever on the highest levels of educational attainment.

At the same time, schools are being asked to educate a much broader, more heterogeneous student population than ever before. While we acknowledge this burden on resources and creativity, we also believe that the conspicuous failure of many urban public school systems to adapt to the changing nature of society, coupled with their traditional disregard for the needs and abilities of those not considered to be in the mainstream (because of race, gender, or class), amounts to educational disfranchisement.⁵

This essay focuses on public schools, not independent or parochial schools, because the vast majority of black children attend public institutions and because it is with regard to public schools that the national agenda on education is fashioned. To be sure, some working-class and middle-class black families have abandoned the public schools. We believe, however, that most have done so reluctantly, and at great financial hardship, aware that they are losing a sense of community but hoping to find individual attention and more creative pedagogical approaches in private schools.

We center our comments on children and adolescents, particularly those deemed "at risk" or "educationally disadvantaged," because this period in life is educationally and developmentally crucial for all youngsters. We do not discuss the problems of higher education for blacks, the declines in student aid, the retreat from affirmative action, or the abuse of black student athletes. Nor do we discuss the role of black colleges, with their special strengths and vulnerabilities. These are all critical issues for the black community to consider, but they are beyond the purview of this essay.

One major theme this framework *does* emphasize, which recent reports have largely ignored, is the centrality of *human relationships* in education. Testing and tracking are obvious topics of discussion; the lack of reinforcing relationships in the learning experiences of black children is equally at issue.⁶ Neither teaching nor learning is a purely mechanical process. Few children are motivated to inquire into the wonders of the world around them if they are not aided by a warm and caring relationship with another human being. Studies show, for example, that the

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educational mission of the television program *Sesame Street* is more effective with middle-class children than with poor children because it is frequently interpreted to them by a primary care giver.⁷ In many—though by no means all—low-income families, parents and guardians do not have the time, the energy, or the skills to reinforce the informal learning opportunities that might take place in the home or in local facilities.

We applaud the resurgence of concern about the state of American education in general. Certain aspects of the current educational reform movement, however, are troubling and potentially divisive. For example, higher standards are a laudable goal, but within the present context supportive structures must be created, and sufficient funds must be allocated, to ensure that those who have had difficulties in the past will be able to meet the new requirements. To sing a psalm of excellence while failing to attend to the plight of underachievers is to make a mockery of the goal of school improvement for all. Likewise, to blame the idealism of the 1960s for the current problems in American education while cutting funds for programs assisting poor and disadvantaged students—as the Reagan administration did—is to debase the widespread impulse for social justice among the American people.⁸ Educational reform must respond to the concerns of all constituents; schooling in a democratic society must embrace the least privileged as well as those who come to the classroom better prepared.

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Edmonds once noted that "schools teach those they think they must and when they think they needn't they don't." The black community must demand that its children receive the proper instruction and necessary resources to fulfill their potential.

The caste spirit is rampant in the land; it is laying hold of the public schools and it has the colored public schools by the throat, North, East, South, and West. Beware of it, my brothers and dark sisters; educate your children. Give them the broadest and highest education possible; train them to the limit of their ability, if you work your fingers to the bone doing it. . . . Never forget that if we ever compel the world's respect, it will be by virtue of our heads, and not our heels.

—W. E. B. Du Bois, 1912

The Historical Context

In 1934, the black educator Horace Mann Bond, later to be the first black president of Lincoln University in Pennsylvania and the father of civil rights activist Julian Bond, published a classic study in black educational history, *The Education of the Negro in the American Social Order*. In this highly acclaimed, meticulously researched volume, Bond carefully traces the black community's efforts to achieve educational advancement. It is a tale of heroic accomplishments in the face of persistent discrimination and denial. As important, though, Bond brilliantly reveals the essential tensions in the black community's historical relationship to schooling. On the one hand, black Americans, like whites, have firmly believed in education's role "as the most important factor in elevating the life of a people"—indeed, Bond believed that schooling should function to "accelerate social change." On the other hand, Bond recognized the school's inextricable links to the political and economic structures of society and thus to the *status quo*. "Strictly speaking," he wrote, "the school has never built a new social order; it has been the product and interpreter of the existing system, sustaining and being sustained by the social complex."⁹

Many have noted the contrast between blacks' passionate belief in the democratic principles of equal rights and opportunities and the reality of prejudice and discrimination in and out of school.

Many others, of course, have noted the tension between hope and frustration in the black experience with public education—the contrast between blacks' passionate belief in the democratic principles of equal rights and opportunities and the reality of prejudice and discrimination in and out of school. As early as 1819, the valedictorian of an African Free School in New York remarked:

Why should I strive hard and acquire all the constituents of a man, if the prevailing genius of the land admit me not as such or but in an inferior degree! Pardon me if I feel insignificant and weak. . . . What are my prospects? To what shall I turn my hand? Shall I be a mechanic? No one will employ me; white boys won't work with me. Shall I be a merchant? No one will have me in his office; white clerks won't associate with me. Drudgery and servitude, then, are my prospective portion. Can you be surprised at my discouragement?¹⁰

Succeeding generations of black students have experienced similar conditions and have reiterated these sentiments tenfold.

The history of the black community's relationship to schooling is, we believe, critical to a consideration of the contemporary scene, because as in other areas the problems our people face today have often been foreshadowed in the past. We are interested in retrieving the essence of historical lessons that allowed black people to surmount some extraordinary obstacles, lessons which reveal our strengths and our frustrations in the ongoing climb, as Dr. King put it, toward the mountaintop.

The desire to learn to read and to write was keen in the black communities of antebellum America, both among the free Negro population in the North and in the slave culture of the South. Even in the dilapidated log cabins of the slave quarters the desire for education was nurtured and strengthened as an integral part of the socialization patterns and kinship networks of black men and women held in bondage.¹¹

For most of the eighteenth century and until the second decade of the nineteenth century, the education of the slave population, while never extensive, proceeded as a matter of economic necessity. Slaves were trained as skilled artisans—carpenters, mechan-

ics, draftsmen, and so on—in order for the plantation to run as an economically efficient unit. In addition, many slave owners taught Bible-reading—stressing, to be sure, those passages that taught obedience to one's master. All this changed, however, when cotton production soared during the first third of the nineteenth century and as slave insurrections and the abolitionist movement gathered momentum. Between 1817 and 1835, a wave of repressive legislation swept the South, prohibiting the assembly of slaves without the presence of whites and strictly enforcing anti-education edicts. One member of the Virginia House of Delegates commented, "We have as far as possible closed every avenue by which light may enter [the slaves'] minds. If we could extinguish the capacity to see the light, our work would be completed; they would then be on a level with the beasts of the field and we would be safe!" Although the slaves themselves continued to strive for knowledge, these laws were rigidly enforced. Thus, by the Civil War, only an estimated five percent of the South's four million slaves were literate.¹²

In the antebellum North, the life of free blacks was severely circumscribed by racism and discriminatory employment practices. (After 1800, it was not uncommon for European observers to remark that racial animosity was strongest in those states which had abolished slavery.) Educational facilities were generally provided for black children—the African Free Schools in New York were exemplary—but typically under segregated conditions, with fewer materials and often hostile white instructors. In Providence, Rhode Island, for example, an early eighteenth century teacher threatened his black students with punishment if they dared to greet him in public.¹³

After the 1820s, northern black communities began a concerted drive for integrated facilities. Although some black parents felt that strengthening the segregated schools would heighten achievement (their children would not be subjected to racial taunts in all-black institutions, and black teachers might find employment), most believed that racial coeducation would begin to break down the barriers of prejudice and would improve classroom resources. Yet white

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leaders of the common school movement, such as the legendary Horace Mann, remained ambivalent to the idea of integrated education, and most northern cities and towns were vociferously hostile. The townspeople of Canaan, New Hampshire, for example, were so opposed to Noyes Academy when it opened as an integrated facility in 1835 that they gathered all of the available oxen, tied ropes around the school, and, to wild cheering, literally tore the institution off its foundation. In Canterbury, Connecticut, before the Civil War, abolitionist Prudence Crandell was jailed for her attempt to start an integrated boarding school for girls. "Open this door," the town's elected officials cried, "and New England will become the Liberia of America." In Boston, a black parent, Benjamin Roberts, sued the city in 1849 because his five-year-old daughter, Sarah, had to pass five white schools on her way to the colored primary school. The Massachusetts Supreme Court ultimately ruled against Roberts, upholding the regulatory powers of the city's Primary School Committee and thus establishing a legal precedent for separate but equal education.¹⁴ (Note, however, that in 1855 the Massachusetts legislature prohibited segregated schools throughout the state.)

During and immediately after the Civil War, the black quest for education burst forth. "Free, then, with a desire for land and a frenzy for schools, the Negro lurched into a new day," W. E. B. Du Bois remarked. Booker T. Washington's first-hand impressions were equally vivid: "Few people who were not right in the midst of the scenes can form any exact idea of the intense desire which the people of my race showed for an education. . . . it was a whole race trying to go to school. Few were too young, and none too old, to make the attempt to learn. . . . Day-school, night-school, Sunday-school, were always crowded, and often many had to be turned away for want of room."¹⁵

After the 1820s, northern black communities began a concerted drive for integrated facilities.

The Reconstruction governments of the former rebel states, pushed especially by black delegates to the constitutional conventions, established free public school systems in the South. The question of segregated versus multiracial education was generally decided in favor of the former. Rather than threaten the fragile educational systems developing in the late

1860s and early 1870s, black political leaders tended to opt for the best educational facilities possible, however racially populated. As Bond astutely observed:

Those who argued against mixed schools were right in believing that such a system was impossible for the South, but they were wrong in believing that the South could, or would, maintain equal schools for both races. Those who argued for mixed schools were right in believing that separate schools meant discrimination against Negroes, but they were opposed to the logic of history and the reality of human nature and racial prejudices.¹⁶

The 50-year period from 1880 to 1930 looms large in black educational history. During this period, black schooling in the South was brought almost to a halt through underfunding and neglect; the Washington-Du Bois debate over industrial versus higher education reached a fevered pitch; intelligence testing became a popular tool to reinforce notions of white genetic intellectual superiority; and patterns of de facto school segregation in the North became firmly established. Although this period has been called the Progressive Era, for the black community the proliferation of lynchings, the exploitation of share-crop tenant farmers, the rise of "Jim Crow" racism, and the widespread acceptance of separate and unequal education forecast a seemingly endless descent, characterized by historian Rayford Logan as "the nadir."¹⁷

In the South, the 1880s and 1890s saw the rise to political power of demagogues such as Governor James K. Vardaman in Mississippi and Senator "Pitchfork" Ben Tillman in South Carolina, who symbolized an unleashing of perhaps the most virulent forms of racism this nation has experienced. Although proposals to divide school funds according to taxes paid by race or to close down completely all "colored" schools were never enacted into law, Southern and border states systematically proceeded to adopt rigid segregation laws, to disfranchise black voters, and to divert funding for black education to separate schools for whites. The federal government acquiesced, and northern newspapers and academicians condemned black efforts for equality during Reconstruction as graft-ridden folly.¹⁸

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From the 1930s to the early 1960s, when the civil rights movement blossomed, the central story in black educational history is the legal strategy that culminated in the Brown decision.

Such was the situation in 1900 when Booker T. Washington and W. E. B. Du Bois argued over the proper course for black political and social development. It is futile to debate the question of who "won" this historic confrontation. Black participation in higher education, which Du Bois eloquently supported, has been an essential component in the twentieth-century civil rights movement, while the need to establish an economic foundation through industrial education and black businesses, which Washington articulated, is still a central problem for black communities throughout the nation. Often overlooked in the commentary on their confrontation is the fact that both men fervently believed in the critical role education must play for blacks to overcome the prevailing discrimination of the nation and achieve the respect due all people. Du Bois and Washington, each in his own way, promoted black schooling during a period when other, stronger forces sought to curtail black intellectual growth.¹⁹

The other central features of this period, intelligence testing and segregated schooling in the North, often went hand in hand. Following World War I and the first "Great Migration" of blacks to the North, urban black communities in the 1920s grew and consolidated. Restrictive covenants forced blacks to live in burgeoning ghettos, and school district boundaries were drawn to separate black children from their white counterparts. The new fad of mental testing accelerated this push for segregation by reinforcing prejudices and by confusing native intelligence with disparities in environmental conditions.

Did black children score lower on these tests because they were genetically inferior or because their conditions of life had not prepared them for the kinds of knowledge being tested? White Americans generally opted for the former explanation, while black social scientists—including E. Franklin Frazier, Charles S. Johnson, Howard H. Long, and Horace Mann Bond—fervently argued for a cultural interpretation. Unfortunately, it took more than forty years for the essential humanity of their views to be even grudgingly included in the national agenda, and remnants of the genetic inferiority argument are still prevalent today.²⁰

From the 1930s, when the disparities between black and white educational opportunities in the South were at their widest, to the early 1960s, when the civil rights movement blossomed, the central story in black educational history has been the legal strategy that culminated in the *Brown* decision. Because the U.S. Supreme Court had maintained in *Plessy v. Ferguson* in 1896 that separate but equal was the law of the land, this strategy had two stages: first, to go after the inequities at graduate and professional schools, highlighting the fact that separate was *not* equal; and second, to attack segregation itself at the public school level.²¹

A group of lawyers, many associated with the Howard University Law School and the NAACP, slowly but surely built a foundation of legal precedents establishing that equal education required more than access to a few books—that it also depended on the quality of in-school associations. Black psychologists and other social scientists aided the cause through studies showing that segregation was mentally oppressive to all. Finally, in 1954, the nine justices of the Supreme Court, in a unanimous opinion, asked, “Does segregation of children in public schools solely on the basis of race, even though the physical facilities and other ‘tangible’ factors may be equal, deprive the children of the minority group of equal educational opportunities?” Their answer was straightforward: “We believe that it does. . . . We conclude that in the field of public education the doctrine of ‘separate but equal’ has no place.” The rocky road to the proper education of black children was certainly not completed with this decision, and many formidable barriers remained, but at least de jure segregation was no longer a constitutionally approved detour.²²

What lessons should we learn from this historical recapitulation? One is certainly that black people have shown a persistent commitment to schooling, as demonstrated by their struggle and sacrifice. Even under the most trying circumstances black communities have energetically organized their social resources and political will to improve the education of their children. Committed student-teacher relationships and the dedication of black educators who

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strove against the odds created an infrastructure for black intellectual advancement. Another lesson is that the concept of education the black community has implicitly adopted—education for liberation, for citizenship, for personal and collective power and advancement—has deep roots. While the contemporary perspective on schooling is narrow and utilitarian, the black perspective has long been rich and inclusive. This view of education cannot avoid moral training and social and political commitment. It includes mastery of basic skills and proficiencies, but it recognizes, as well, the multiple intelligences that need to be developed in a truly educated person.

Finally, we must not forget the negative and counter-productive lessons of our past: “Why try?” the young scholar asked in 1819, and many of our children ask the same haunting question today. “Why try?” is the other side of the history of the continual struggles black Americans have faced.²³

America is moving backward—not forward—in its efforts to achieve the full participation of minority citizens in the life and prosperity of the nation. . . . If we allow these disparities to continue, the United States inevitably will suffer a compromised quality of life and a lower standard of living. . . . In brief, we will find ourselves unable to fulfill the promise of the American dream.

—Commission on Minority Participation
in Education and American Life, 1988

Barriers to Successful Schooling

Despite the social and political accomplishments of blacks since the *Brown* decision, formidable barriers still diminish the education of many black children and adolescents. These obstacles include lingering “rumors of inferiority,” as some have called the psychological dimensions of the problem, as well as bureaucratic and classroom practices that deny black children the necessary resources and opportunities to fulfill their potential.²⁴ This discriminatory treatment takes many forms. As a task force from Champaign, Illinois, told the Board of Inquiry for the National Coalition of Advocates for Children, the education of black children is circumscribed by:

. . . their virtual noninvolvement in school activities; underrepresentation in programs for the gifted and overrepresentation in special education; disproportionate discipline referrals, resulting in suspension and expulsion; interactions with some staff members who do not know or exhibit appreciation of values inherent in black culture; interactions with many staff members who communicate low expectations for their behavior and achievement; and the destruction of hopes that comes from living in a community in which black unemployment is high and a general feeling exists that adult opportunities for success are limited.²⁵

Supporting data bear out this damning assessment:

Despite the social and political accomplishments of blacks since the Brown decision, formidable barriers still diminish the education of many black children and adolescents.

- In 1980, black children were three times more likely than white children to be placed in classes for the educable mentally retarded, and only one-half as likely to be in classes for the gifted and talented.
- In high schools, black students are suspended about three times more often than white students.
- Although black students make up slightly more than 16 percent of the nation's elementary and secondary public school enrollments, only seven to eight percent of public school teachers are black.
- Since 1965, the unemployment rates for black men and black women have increased in virtually all age categories between 18 and 64 years old.²⁶

Nevertheless, some gains have been made: black students' scores on the Scholastic Aptitude Test (SAT) have increased moderately, and during the 1970s, black 9- and 13-year-olds showed strong improvements in reading and math scores, particularly in the southeastern states. On the whole, black high school completion rates have improved in recent years. If incremental gains like these can be made, a wholesale effort could break through the remaining failures. Yet black college enrollment has declined dramatically since the mid-1970s (falling from 50 percent of recent high school graduates in 1977 to 36.5 percent in 1986), and in some central city schools black dropout rates are intolerably high, approaching and sometimes exceeding 50 percent. At the high school level, black students are greatly overrepresented in vocational tracks and underrepresented in academic programs.²⁷

The New World Foundation has characterized current educational conditions as "a crisis of inequality." "School failure for lower income and minority students," the report charges, "has reached epidemic proportions. . . . The taproot of this failure is the chronic inequality in the school resources allocated to poor and declining communities, in the ways that learning is stratified and structured, in the ways that schools treat diverse needs and potentials." The result, this study notes, is "second-class schooling."²⁸

The barriers to black educational achievement begin with the economic and social status of the black population. As is well-known and amply documented, schools often reinforce social inequalities rather than overcome them, and the perceived life chances of low-income students have been shown to inhibit their scholastic motivation.²⁹ Since vast segments of the black community in the 1980s suffer from a pervasive and widening economic depression characterized by a sharp decline in real income, high unemployment rates, a steep increase in the proportion of single-parent families, and a feminization of poverty, it is hardly surprising that students come to school with depressed expectations.³⁰

These social phenomena influence patterns of schooling and educational attainment in a variety of ways. They are likely to lead to early parenting, with some 50 percent of teenage mothers failing to graduate from high school. Teen fathers are 40 percent less likely to graduate than their nonparenting peers. In addition, the likelihood of graduation for both black males and females is closely linked to their mother's level of education.³¹

Children from poor families are three to four times more likely to forgo completing high school than those from more affluent families. (When family income is statistically controlled, black and white dropout rates are remarkably similar; interestingly enough, poor blacks have a slightly lower dropout rate than poor whites, 24.6 percent to 27.1 percent, respectively.)³²

In the context of changes in the U.S. economy, the dropout problem among black youth is all the more devastating. In urban centers over the past two decades, job losses have been heaviest in fields that require less than a high school education, and job growth has been greatest in fields requiring at least some post-secondary education. Broadly speaking, cities have been changing from centers of goods processing and distribution to centers of information processing and higher-order service administration. In New York City, for example, jobs requiring lower educational attainments decreased by 492,000 between 1970 and 1984, while those requiring higher educational attainments increased by 239,000. In

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Philadelphia, during the same period there were 172,000 fewer jobs for those with less than a high school education, and 39,000 more for those with some higher education; in Atlanta, 9,000 lower-level jobs were lost, while 37,000 higher-level jobs were opened. Although increases in certain categories of jobs are occurring nationwide—including secretaries, bookkeepers, retail sales workers, nurses' aides, cooks and chefs, cashiers, and so on—these jobs typically require at least a high school diploma and are often far removed from the central city areas where growing numbers of low-income, poorly educated minorities reside.³³

Surprisingly, for blacks, unlike whites, each additional year of schooling beyond the elementary level does not result in commensurate gains in employability. In fact, in 1982, black men and women who graduated from high school actually had slightly higher unemployment rates than those who completed only one to three years of high school. Only with the attainment of a college degree does schooling beyond the elementary years make a substantial difference in black employment patterns.³⁴

The dampened hopes of many black children often smolder in lingering resentments manifested in drug and alcohol abuse; passivity, apathy, and noninvolvement in school work; and inappropriate classroom behaviors. Certainly, discontinuities between school and community are not unique to the black experience. The social alienation among American youth in general, indicated by the extensive use of drugs and alcohol, to take one example, represents a national crisis. But the combined effects of these social conditions place black youth at a particularly severe disadvantage, and the educational institutions of our society have failed to respond effectively.³⁵

One indisputable way in which schools institutionalize social inequalities is through the gross stereotyping of black children. Mistaken notions about low-income people and their lifestyles form the basis for low expectations and self-fulfilling prophecies of failure in school. Research has revealed that teachers form negative, inaccurate, and inflexible expectations based on such attributes as the race and perceived social class of their pupils. These expectations result

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in different treatment of minority and white students and affect the minority students' self-concept, academic motivation, and level of aspiration as they conform, over time, more and more closely to what is expected of them.

Our concern is not with expectations per se; as observant parents and responsible educators well know, reasonable and logical inferences concerning pupil performance can be extremely helpful in determining learning goals and setting levels of instruction. Rather, the issue is the accuracy of expectations and especially the ability of educators to revise their expectations in light of new information on student progress. When teachers perceive a black child as a "low achiever" and regard this condition as permanent and unchangeable, the child is not likely to succeed. Moreover, as Eleanor Leacock notes in *Teaching and Learning in City Schools*, the apathy and lack of motivation that teachers decry in urban classrooms "is all too readily ascribed to lack of interest in learning derived from home backgrounds. In fact, however, this lack of interest and response can be seen as children returning to their teachers exactly what they have been receiving from them."³⁶

Any discussion of low expectations for black and other minority youth must face the issue of tracking, i.e., ability grouping. Many teachers, administrators, and even parents defend tracking on several grounds—that the academic needs of students are better served through homogeneous groupings, that less-capable students do not suffer emotional stress from competition with their brighter classmates, that teaching is easier. The research literature, however, reveals strikingly little evidence supporting any of these claims. Rather, study after study indicates: (1) that black and minority students are disproportionately placed in the lower-ability, non-college-bound tracks; (2) that the net effect of tracking is to exaggerate the initial differences among students rather than to provide the means to better accommodate them; and (3) that tracking results in an altered "opportunity structure" detrimental to those in the bottom tracks, because the nature and content of their instruction is systematically different from that of other students. In this regard, students placed in the

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low tracks have been shown to have less access to resources (including, in some cases, the school's best teachers); less instruction in higher-order thinking skills, with more emphasis placed on rote training and workbook lessons; and, overall, less time set aside for review of homework and other academic activities, with a greater stress on matters of mindless procedure and strict discipline.³⁷

The inflexibility of track placements, like the rigidity of teacher expectations, represents a problem of paramount proportions. Black and other low-income students are often imprisoned in the bottom tracks, shunted away from mainstream classroom instruction. In fact, this is one of the major reasons that many black students fall further and further behind their peers academically as they advance through the grades. Even most proponents of tracking agree that students should be able to move up the academic hierarchy as their abilities dictate. Yet, most frequently, black students are dropped into low-ability groups, sometimes at a very early age, with little possibility of movement upward. James Rosenbaum, in *Making Inequality*, likens inflexible tracking to a sports tournament: "When you win, you win only the right to go on to the next round; when you lose, you lose forever."³⁸

Along with tracking, standardized testing has been one of the most controversial educational topics of the past quarter century. Opponents charge, among other things, that the tests discriminate against minorities, while proponents support their use for credentialing, track assignments, and other purposes. Spurred by the excellence movement, state legislatures over the past few years have increasingly mandated testing for promotions and as a measure to determine public accountability. The debate continues unabated. In many ways we agree with the assessment offered in a report by the New World Foundation:

Testing itself is not the core issue. The issues are whether the test used is valid for what it purports to measure; whether the test assesses performance or dictates performance; whether the results are used to correct institutional deficiencies or to stratify students. By these criteria, we have ample reason to challenge the

extraordinary legitimacy now vested in standardized testing and competitive test scores.³⁹

Thoughtful critics of standardized testing have raised a number of concerns in addition to the issue of cultural bias, including: (1) that many tests classify students according to statistical procedures based on a bell-shaped curve, thus providing a rank order but not necessarily indicating the level of mastery that has been achieved; (2) that there is more to schooling and learning than simply how well students perform on time-restricted, multiple-choice tests and that a wide range of abilities and proficiencies are not tapped by these measures; (3) that the tests are typically used not as diagnostic tools for effective teaching and remediation but as punitive measures for labeling, tracking, promotion, and so on; and (4) that over-emphasis upon standardized testing subverts true education, undermining the curriculum and eroding the quality of teaching.⁴⁰

Overall, then, serious questions must be raised about the validity of standardized testing and its effects not only upon black and minority children but upon quality education for all. We advocate the development and sensitive use of a variety of methods for assessing both school and student performance. Standardized tests do have their place, particularly as research tools in comparative assessments of groups of students across classrooms and school districts and as criteria for public accountability (under strict guidelines for interpretation). But, we believe, to assess individual performance in order to decide on a student's academic program, a variety of measures must be employed. Contrary to the long-standing view that intelligence is a unitary phenomenon measurable by a single test, we believe—and recent research confirms—that all people are blessed with multiple intelligences, which can be tapped through a variety of teaching methods. Only as schools expand their vision of individual capacities and abilities will education become truly inclusive.⁴¹

Expanded concepts of intelligence go hand in hand with a broader view of the curriculum and an increased minority presence within the teaching force. Lip-service is often paid to the goal of multicultural education, yet it is frequently neglected as an across-

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the-board curricular concern; when implemented, it is often isolated as an ethnic event or adventure. We do not argue for "relevance" as a reduction in curricular standards, as some opponents have charged; nor is our goal the inclusion of rap music in auditorium performances (although, as a means of teaching poetry and creative expression, "rap" and other black art forms might indeed be employed). We do believe that our schools must reflect and creatively utilize the pluralistic nature of our society to enhance the educational endeavor.⁴²

Rather than increasing their presence in the schools, black teachers are becoming an endangered species, dropping to as little as five percent of the teaching force at a time when black student enrollments are increasing. Many reasons have been given for the declining number of black instructors, ranging from the increased use of standardized examinations of teachers to expanded opportunities for blacks and other minorities, especially women, in other professions. Surely a mix of these factors is involved. Current efforts to transform teaching from an occupation into a respected profession can play a critical role in rectifying this problem. Career ladders that freed teachers from performing the same tasks year after year might attract and retain ambitious, talented blacks as well as whites to the profession. Likewise, recruitment programs and other incentives can be improved. Our point is twofold: first, the reform of the teaching profession is a potentially important component in enhancing the achievement of black youth; and, second, increasing the number of black educators must be a central aspect of this reform drive.

Rather than increasing their presence in the schools, black teachers are becoming an "endangered species."

Teachers can spark a spirit of inquiry in students only when they themselves feel a spirit of inquiry and development. Yet the burgeoning literature on teacher burnout vividly depicts the isolation, redundancy, and stress in many teachers' lives. Schools need to provide collaborative environments that support the intellectual development of teachers as well as students. They need to encourage creativity and risk-taking, challenging teachers to broaden their pedagogical repertoires and students to become academically engaged. Both black teachers and black

students are alienated from the schools when the structure and the content of education is trivialized.⁴³

Finally, one critical barrier to school success is the lack of early childhood education programs. Research findings consistently and unequivocally indicate that the Head Start and Chapter 1 (formerly Title 1) entitlement programs not only benefit low-income children but are a sound social investment as well. For every dollar paid for Head Start, it has been estimated that we save seven dollars in related social service costs, and an investment of \$600 for a child for one year of Chapter 1 services can save \$4,000 in costs for repeating a grade. Yet neither program has ever adequately served all who are eligible. Head Start, the most successful of the 1960s initiatives, reaches only 16 to 18 percent of the 2.5 million eligible children.

When the Reagan administration reorganized Chapter 1 in 1981, the program was severely watered down. In 1985, only about 54 percent of the children eligible for Chapter 1 received the compensatory services to which they were entitled, down from 75 percent in 1980, and funding decreased by approximately 29 percent between 1979 and 1985. Mandates for parental participation were callously and arbitrarily weakened; several states were allowed to eliminate certain academic and preschool components; and, according to Children's Defense Fund estimates, approximately 900,000 potential recipients lost services. Failure to support these programs represents a criminally negligent social policy.⁴⁴

The effects of poverty, unemployment, racism, funding cutbacks, and the general conditions of life in poor communities seep into the schools in myriad ways. While we do not expect schools in and of themselves to solve the social woes of American society, neither will we tolerate their continued compliance in deflating the aspirations of black youth. The 1966 Coleman Report has been justly criticized, but one point raised by that study is appropriate in this regard: "equality of educational opportunity through schools must imply a strong effect of schools that is independent of the child's immediate social environment, and that strong independent effect is not present in American

Head Start and Title 1 entitlement programs not only benefit low-income children but are a sound social investment as well.

schools."⁴⁵ Until educational institutions accomplish this paramount task of overcoming social obstacles rather than recreating and reinforcing them, equality of educational opportunity for black children will elude us.

The search should be for "good enough" schools—not meant to imply minimal standards of talent and competence, but rather to suggest a view that welcomes change and anticipates imperfection. . . . I am not arguing for lower standards or reduced quality. I am urging a definition of good schools that sees them as whole, changing, and imperfect. It is in articulating and confronting each of these dimensions that one moves closer and closer to the institutional supports of good education.

—Sara Lawrence Lightfoot, 1983

Improving Schools for Black Children

By the late 1960s and early 1970s, the public policy debate over the education of black children, particularly in urban areas, took on a decidedly pessimistic tone. Bureaucratic maneuvering thwarted community control activists, while the ideals of the 1960s' social programs were submerged by a wave of academic studies questioning the gains that had been won. The early evaluations of Head Start, Title 1, and other compensatory education programs did not demonstrate the quick spurts in IQ scores that many had hoped for—though neither problems in implementation and funding nor the narrow conceptions of achievement that marred some early efforts were prominently examined. The failure to create an immediate "educational renaissance" was hastily explained through resurrected notions of black genetic inferiority. Moreover, popular interpretations of two influential research reports, John Coleman's *Equality of Educational Opportunity* (1966) and Christopher Jencks' *Inequality* (1972), fostered a public sentiment summed up in the catch-phrase "Schools don't work." To the extent that these studies and others stressed family background as the determining factor in children's school achievements,

their results were generally taken to mean that the poor showing in school among black and minority youth had little to do with the schools themselves. For people who were predisposed to a view of black cultural and academic inferiority, it was easy to interpret the message: It's not the schools' fault, it's the kids! Schools were off the hook.⁴⁶

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In response to this gloomy climate of opinion regarding the education of black children, Ron Edmonds and others launched the effective schools movement. They sought to promote the social equity concerns of black and low-income children by demonstrating the existence and determining the characteristics of effective urban schools.

Subsequent research has identified five central characteristics of schools that successfully educate students: (1) strong administrative leadership, especially a principal and a core group of teachers who serve to bring together a consensus around school goals and purposes; (2) a positive climate of expectations that embraces all children; (3) an orderly and disciplined school atmosphere conducive to the academic tasks at hand; (4) a clear focus on pupils' acquisition of skills and knowledge as the fundamental school objective; and (5) frequent monitoring and assessment of pupil performance.⁴⁷

The effective schools literature of the last 10 to 15 years has also influenced other conceptions of school improvement. Mastery learning programs are an example of a recent initiative that considers the vast majority of students educable and fosters the view that it is the school's responsibility to serve all comers. These programs are grounded in the belief that 80 to 90 percent of all children can learn material if it follows a clear, logical sequence, if the students receive systematic rewards and reinforcement, and if the teaching strategies are designed to match the context. Black and poor children can learn, this set of studies indicate, when schools and society agree to ensure that they do so.⁴⁸

The research literature on school improvement has also been deepened and enriched in recent years by analyses of the School Development Program initiated at the Yale Child Study Center by James Comer.

Working with the New Haven Public Schools, Comer and his colleagues have focused on enhancing the social context for teaching and learning school by school, particularly by improving relationships among staff, students, and parents.⁴⁹

Comer notes that the social distance between schools and the communities they serve has changed significantly over the past generation. We can no longer assume that parents and teachers share values, and in any case, children are exposed to a great range of information and conflicting views by television, videos, radio, and other sources as they attempt to make sense of their world. But Comer does not view the past nostalgically. He recognizes that schooling must change with the times. It is not enough to raise standards arbitrarily; we must also construct new patterns of interactions so that the powerful social networks that nurture and develop the child in the home and community are less alienated from the culture of the school. Too often, black parents are called upon by the school only for disciplinary troubles, or when their child has an academic problem. The process of building supportive relationships for black children, of creating a true learning community that respects diversity of cultures, languages, and learning styles just as it nurtures the life of the mind, naturally includes parents in substantive educational matters.

For although the society has grown increasingly complex, young children are no more innately intelligent or socially developed than they ever have been. They still need consistent relationships with supportive adults to help them mediate their experiences and thus to learn how to understand and to control the world around them. As Comer explains:

It is the attachment and identification with a meaningful adult that motivates or reinforces a child's desire to turn the nonsense sounds and syllables we call the alphabet, to letters, words, and sentences (and accomplish many other school tasks) *before* they have obvious meaning and benefit. But once done, such achievement is inherently rewarding. This gives a school setting greater value and, in turn, increases the likelihood of student acceptance of the attitudes, expectations, and ways of the school. Thus, the ability of the staff to permit and

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promote attachment and identification with them is critical to learning.³⁰

Yet, for a variety of reasons such supportive relationships between care givers and children frequently do not develop; instead, conflicts develop based upon class, race, income, or culture, and the skills and abilities that many children learn as useful outside of school do not help them achieve academic success. Mounting accusations and aggression then start to spiral out of control; children begin to respond to this negatively charged situation by acting out their rejection of the norms and values of the school, by losing confidence, or by inwardly withdrawing from a confrontation they sense they cannot win. Teachers and staff, in turn, see their attitudes and expectations confirmed and justified. As Eleanor Leacock notes:

Deviations themselves are patterned, and supposedly deviant roles, such as not learning, can become widespread, institutionalized, and as intrinsic to the social structure as supposedly dominant norms. Most non-conforming behavior does not follow from a lack of ability to adjust, but is built into the system as integrally as "acceptable" behavior.³¹

Within this framework, the model of school intervention offered by the School Development Program has several key components. One is the creation of a "no-fault atmosphere," in which blaming and finger-pointing take a back seat to open discussions among administrators, staff, and parents around school and student needs. No single group is assumed to be at fault, and no single initiative, taken by itself, is seen as making a difference. The focus is on creating an interactive social and academic climate that makes the school a desirable place to be, to work, and to learn. The intervention program recognizes that just as teaching and learning are not mechanical processes, relationships supporting cooperation, nurturance, development, and achievement cannot be mandated. Thus, collaborative teams for governance, management, and mental health are created to energize the entire school. These teams, which include administrative leaders, teachers, parents, and specialists in child and adolescent development, work to create networks of communication in order to overcome the departmentalization and hierarchical

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fragmentation that turn schools into impersonal bureaucracies.

Parent participation is an essential element in this intervention, although it is difficult to achieve. Distrust often runs high between families and the schools that serve low-income and minority children, with charges and countercharges sending a mixed message to our youth: school is hope; school is the enemy. Yet the New Haven experience has demonstrated that when parents participate in the schools in meaningful, well-conceived, and structured ways, they come to identify with the school's academic concerns. Parents checking homework, working as classroom assistants, volunteering as coordinators of after-school activities, and participating as members of the governance and management teams give black students immediately recognizable adult models. Teachers and parents are seen as being in alliance, working for and believing in common intellectual and social goals. Parents also begin to develop a sense of ownership of the school and feelings of responsibility for academic success. Educational aspirations expand and begin to spread from students to their families as parents decide to reinvest in their own educations.

Both the effective schools literature and the school development intervention model have shown that there are no quick-fix solutions or Band-Aid remedies which can be applied across the board. Consensus on educational purposes, a commitment to common goals, and a climate of expectations cannot be imposed on schools from without. Rather, they must come from the collaboration of active participants in the educational process. Thus, a common theme of these and other reform efforts has been reform at the building level—that is, within individual schools.

One promising trend in this regard has been the development of the role of the teacher as researcher, in which classroom instructors systematically attempt to close the cultural gaps separating school from community—investigating, for example, the ways in which differences between speaking styles in the local black community and styles used in classroom discussion might be bridged. Studies since the 1960s have revealed that black English possesses a gram-

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mar, a system of deep cultural meanings, and a linguistic integrity on a par with that of standard English. Unfortunately, educators had not until recently found a way to bridge the gap between these two language forms in the classroom. Over the last few years, however, researchers such as Shirley Brice Heath have urged parents and teachers to work more closely together to clarify the perplexing discontinuities and thus improve their students' school performance.

The results have been instructive. Teachers have been energized by their new and challenging role and have experimented with different types of question-asking and prereading activities, building upon and expanding the language competencies their students bring to school. Parents are seen as having valuable information that can make a difference in their children's learning. And black children perceive a greater continuity between home and school: their observations and answers no longer constantly corrected before they can complete an idea, they do not feel disparaged. They learn to identify the contexts in which different styles are appropriate, and they improve the language skills necessary for school success.⁵²

Again, we are not naive about the complex processes that successfully improve schools. Surmounting the institutionalized patterns of beliefs and behaviors that have, on the whole, thwarted the education of black youth requires a collaborative, evolutionary perspective. As Sara Lawrence Lightfoot notes in her book, *The Good High School*, "institutional invigoration and restoration is a slow, cumbersome process. . . there are jagged stages of institutional development . . . [and a] staged quality of goodness."

The black community must not wait for the educational millennium. It must make conscious efforts to achieve change through the empowerment of parents, teachers, and students. And, as Edmonds stated with regard to the effective schools drive, "if you generally seek the means to educational equity for all our people, you must encourage parents' attention to

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politics as the greatest instrument of institutional reform extant."⁵³ Comer agrees:

Black community organizations—church, fraternal, social and others—must find a way to set expectations and support the development of our children at home and at school. That is precisely what happened when we were largely located in the small towns and rural areas of the South, and in segregated schools. Much has been gained through racial integration in all institutions. And while many White teachers are supportive, the broad-based Black community support for achievement inside and outside schools has been lost and must be restored in some systematic way. . . . As a community we can't abandon the public schools or support public policy that allows the society to do so.⁵⁴

Thus, we call for collective action to improve schooling for black children. Neither cynicism, nor despair, nor undue optimism is appropriate; all of these are comfortable indulgences that militate against constructive educational change. We do not deny that schools embody the bad as well as the good of society. But we will no longer accept that appraisal as an excuse for failure. We must all search for the common ground on which to build an academic foundation for this generation of black youngsters.

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The citizens of tomorrow must be equipped as best we know how to equip them, with the techniques which will soften, if not entirely alleviate, the shock of our continuous transition.

—Horace Mann Bond, 1933

Conclusions and Recommendations

We began this appraisal of the black educational experience by asserting the capacity of black children to master their schoolwork and by calling upon the black community to mobilize its considerable social and political resources to achieve equal educational opportunity for all. In fact, it is our belief in the academic and human potential of black youth that makes the current levels of underachievement intolerable. Our basic goal must be to raise the perceived ceiling on black talent.

Another, equally important purpose of this defense of black intellectual capacity is to combat the rampant “caste spirit” that W. E. B. Du Bois referred to in 1912 and which still today circumscribes black life. The undereducation of black children does not exist in a void; the school is not an isolated social institution. The crisis in education is also a crisis in democratic citizenship. We have already discussed both the transformations taking place in the American economy and the proposals for school reform that promote a narrow view of “excellence” devoid of social justice concerns for black youth and their families. If these distorted reforms are implemented without input from the black community, it is clearly in danger of being locked out of the new economic arrangements that will structure U.S. society well into the 21st century. We must respond forcefully to the myopic perceptions that perpetuate the black underclass.

Our recommendations for progressive educational reform fall into three categories:

- recognizing the centrality of human relationships;
- eliminating barriers to effective teaching and learning;
- mobilizing physical and political resources.

Recognizing the Centrality of Human Relationships

Black parents must become actively involved in the educational process, and schools must welcome their participation.

Schools have primary responsibility for the education of our children, but that does not absolve us of our own obligation to ensure that the schools are working. We cannot allow educators to blame black children and their families for the underachievement and apathy so prevalent in many urban school systems. Reaching consensus around academic goals and purposes must be seen as the starting point in developing positive relationships among all of the central actors in the educational scene—teachers, students, administrators, and parents. The black community must also get involved in this process through political activism at the grassroots level. Only a united front can become an effective agent for educational achievement by black youth.

Schools must become less impersonal.

It is extraordinarily difficult for children to become engaged in their lessons, or for teachers to establish productive relationships with their students, in school buildings that resemble large factories. Yet, when Roxbury High School in Boston was about to be closed down in the early 1980s, for example, black students' worries about being "lost," "unnoticed," and "overlooked" in their new school were cavalierly dismissed by central office authorities. But such concerns are very real for all adolescents, particularly those whose race has been treated as invisible and who throughout their lives have experienced large

Reaching consensus around academic goals must be seen as the starting point in developing positive relationships among central actors in the educational scene—teachers, students, administrators, and parents.

doses of neglect and indifference. The successes of the School Development Program in New Haven, on the other hand, along with certain alternative efforts such as the Central Park East School in New York, indicate that a sense of identification and connection can make a substantial difference in black children's intellectual development.⁵⁵

The advantages of large schools with a great variety of programs, curricular offerings, laboratories, and technical resources must be balanced against human needs for connection and identification. The house system of organization, already in place in many suburban schools, might be replicated in urban areas so that students not only have a homeroom but also a relatively small network of students and staff with whom they can connect for guidance, support, and friendship. Parents as well as children are more likely to become involved when the school structures are more easily negotiable and less alienating. School spirit should not be confined to those who engage in sports or other extracurricular activities; it should enliven the day-to-day academic affairs of the institution as well.

Schools must establish closer ties with other social services.

We are advocating not that schools provide a full range of social services for black and low-income students but rather that our educational institutions provide a liaison to social services for parents and children requiring help. Schools are the only institutions in our society in which the acquisition and transmission of skills and knowledge are the primary focus, and we do not want to change this essential mission. But schools are necessarily a focal point for a variety of family problems that undermine this mission.

School-to-work transition programs and school-based health clinics—a topic vigorously debated of late—represent an expanded view of the educational endeavor. Schools must also become knowledgeable of and connected to the communities of the children they serve. A coordinator of social services might be established in the schools to institutionalize this liaison role. The coordinator could direct individuals

Schools complain that too much beyond education is expected of them; one way to relieve that burden is for schools to direct parents to sources of help.

and families to relevant services at the state, local, and community levels. (In addition to public agencies, nearby churches and other black civic organizations can play an important and well-managed helping role within the black community, providing such services as tutoring, literacy training, housing, and day care.) Beyond academic counseling and guidance—which themselves need repair and increased emphasis—schools can enhance their educational role by facilitating access to the social services needed by students and their families. Schools complain that too much beyond education is expected of them; one way to relieve that burden is systematically to direct parents to sources of help.⁵⁶

Eliminating Barriers to Effective Teaching and Learning

Schools must recruit more black teachers.

Low numbers of black teachers constitute a fundamental barrier to enhanced achievement by black students.⁵⁷ All teachers can serve as role models and can develop classroom environments conducive to learning, but what is the "hidden curriculum," what lessons in citizenship and in social relationships do our children learn, when they notice, as they inevitably do, the absence of people like themselves in positions of authority in their schools? Until more children look into the eyes of teachers and see themselves reflected—and until more teachers look into the eyes of children and see themselves reflected—many of those children will feel excluded from the educational enterprise. All educators must be able to perform the basic human act of acceptance and understanding, but undoubtedly it will be easier to achieve when the teachers' lounge is as multicultural as the curriculum and the classroom.

Both within the black community and in American society as a whole, teaching has lost the high status it formerly held. Among blacks, the teaching profession once meant not only secure employment but also an avenue for sharing intellectual attainments and expressing social commitments through "service to the race." The widespread devaluation of teaching has made education a much less attractive career for

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black college graduates, who historically had been drawn to this occupation.

We believe that teaching can still fulfill the impulse toward service and community commitment, but to attract more black educators to the schools, certain reforms are necessary. Salaries must be raised and opportunities for professional growth and development should be made available. Incentives for teaching in inner-city schools might halt the exodus of teachers from these schools and highlight social concern for the improvement of urban education. Internships for high school students can provide opportunities for talented black youth to get first-hand experience in the classroom while simultaneously providing community service through tutoring and helping their peers with schoolwork. Teaching should not be a fall-back position; it should be a positive option that is attractive because it meshes with certain intellectual and social abilities, because it offers the opportunity to work with youth, and because it holds the possibility of personal growth and advancement.

Develop sensitive and precise testing procedures for the diagnosis of student abilities and needs.

Schools must expand the ways they monitor a pupil's progress. Student performance on time-restricted, multiple-choice, standardized tests does not show innate aptitude, nor does it indicate whether the test-taker is capable of writing an essay or crafting a poem. Indeed, testing becomes a dangerous instrument of social oppression when test results are seen as revealing native abilities uninfluenced by environmental conditions. Furthermore, overreliance on standardized testing distorts the educational process, determining what is taught in the curriculum rather than assessing student acquisition of an independently determined knowledge base.

We do believe that testing can improve education when used as one of several methods of student appraisal. The effective-schools literature has identified the frequent assessment of pupil progress as a key factor in improving instruction. Thus, although we remain concerned about cultural bias and the distorting influence of overtesting, we do not call for

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the abandonment of standardized testing in the schools. Rather, we believe tests must become more sophisticated and sensitive tools for measurement and diagnosis, which will ultimately help our children progress through their course work.

Rigid systems of tracking and ability grouping should be abandoned.

As noted educator John Goodlad has observed, "The decision to track is essentially one of giving up on the problem of human variability in learning. It is a retreat rather than a strategy."

As noted educator John Goodlad has observed, "The decision to track is essentially one of giving up on the problem of human variability in learning. It is a retreat rather than a strategy. The difference in teachers' expectations for high track as contrasted with low track classes . . . is evidence enough of capitulating rather than addressing the admitted complexities of the problem."⁵⁸ Moreover, because research findings consistently indicate that inflexible track placements and rigid ability grouping segregate, stigmatize, and deny those in the bottom tracks the same access to quality education those in the upper tracks receive, we believe that these practices should be ended. It is well known that black and other low-income minority students are overrepresented in the lower-ability tracks in our nation's school systems, yet it is frequently overlooked that the differences in the kind of instruction across tracks makes it increasingly difficult for these students ever to climb up the academic hierarchy. In this way, low expectations and mindless bureaucracy crush the potential of thousands of black youth each year and limit their future opportunities. Staff development programs in multicultural education are an example of a readily available avenue that must be seized upon to address issues of diversity within regular classroom settings.

The curriculum must be expanded to reflect the lives and interests of black and other minority children.

Why must we continually fight for the validity of the black experience as a subject of schooling? It takes nothing away from Shakespeare or Emily Dickinson to include the dramas of August Wilson and the poetry of Langston Hughes as an integral part of the school curriculum. All children need to see people like themselves express the timeless concerns of humankind and to be symbolically represented in the

classroom as worthy of discourse. "I, too, sing America," Hughes once wrote. A multicultural curriculum is an imperative for a multicultural society; all children will benefit from learning the extraordinary richness of their heterogeneous culture.

All black children must have the opportunity for a quality education.

The goal of the struggle to end segregation has been equal opportunity for quality education for blacks. But although economically successful black parents today can send their children to good desegregated schools, public or private, poor black children still do not have such options. They remain, 34 years after *Brown*, racially isolated, largely segregated, and subjected to inferior schooling. Consequently, we must fight for a decent education for black children wherever they are, whether in desegregated, integrated, or all-black schools.

Mobilizing Physical and Political Resources

Fund Head Start and Chapter 1.

The Children's Defense Fund's FY '89 "Preventative Investment Agenda" notes that in order for Head Start to reach just half of the eligible three- to five-year-old poor children in America, it will have to receive some \$400 million in each of the next five years. For Chapter 1 to be extended to all those entitled to receive its services, its funding will have to be increased by \$500 million over this same period. While these dollar figures might seem mind-boggling, it is instructive to realize that every year \$12.4 billion in revenue is lost because capital gains on inherited corporate stock are not taxed.⁵⁹ Moreover, these demonstrably successful programs actually save the country money in the long run.

Effective education must lead to effective participation in the economy.

As long as substantial numbers of black youth come to the realistic conclusion, based upon the widespread unemployment around them, that schooling will not

It takes nothing away from Shakespeare or Emily Dickinson to include the dramas of August Wilson and the poetry of Langston Hughes as an integral part of the school curriculum.

pay off in decent job opportunities, their motivation will suffer. Pervasive unemployment undermines those positive messages that do link education, success, and jobs. Moreover, the structural isolation of low-income communities prevents many of our youth from seeing the nature of the jobs performed by their parents and other adult figures. Black children, like all others, can quickly perceive when the rules of the game are stacked against them; when rhetoric fails to jibe with reality. Meaningful employment opportunities, we are convinced, will demonstrate to black children that they have a place in our society and that persistence in school is worthwhile.

Furthermore, survey data that reveal extremely low levels of literacy among black seventeen-year-olds and young adults portend a national tragedy.⁶⁰ The productive capacity of the U.S. work force is diminished when large segments of the population do not receive the necessary training to contribute to the well-being of society. The prosperity of the nation depends upon the effective development of human resources even more than on technological improvements.

All segments of the black community must assume a greater responsibility for the education of black youth.

We call upon all black people to apply their skills and abilities aggressively on behalf of our youth. In the past, because of residential segregation and other factors, black Americans from a range of socioeconomic levels interacted daily. In recent years, the black population has itself become polarized. Understandably, many middle- and upper-income blacks have left the inner cities, the public schools, and thus the black communities to which they had belonged.

Middle-class black adults are still needed as positive role models for less fortunate black youth. These adults can work to strengthen community programs that identify and foster black talent. Black historical societies and creative arts groups can expand their outreach efforts; churches might use extra space for supervised tutoring activities; parents might take an extra child or two to the circus or to see a parade. No

Meaningful employment opportunities will demonstrate to black children that they have a place in our society and that persistence in school is worthwhile.

one in the black community can afford to stand on the sidelines.

The improvement of public education must be the principal objective of the black community in the next decade.

We can meet the challenge of ensuring a world-class education for our children only through political activism. All segments of the black community must demand that schools have the staff, policies, and resources necessary to their tasks. Quality education, as described in this essay, can and must be a political issue cutting across race and class and reverberating from neighborhoods to state capitals to the White House.

We can meet the challenge of ensuring a world-class education for our children only through political activism.

Notes

Introduction

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Black Economic Progress

An Agenda for the 1990s

Marcus Alexis

C. Robert Kemp

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Edited by Margaret C. Simms



Joint Center for Political Studies
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Black Economic Progress

An Agenda for the 1990s

A Statement by the Economic Policy
Task Force of the Joint Center for
Political Studies

Marcus Alexis
Wendell Wilkie Gunn
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Edited by Margaret C. Simms



Joint Center for Political Studies
Washington, D.C.
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The Joint Center for Political Studies is a national nonprofit institution that conducts research on public policy issues of special concern to black Americans and promotes informed and effective involvement of blacks in the governmental process. Founded in 1970, the Joint Center provides independent and nonpartisan analyses through research, publication, and outreach programs.

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FOREWORD

The Economic Policy Task Force of the Joint Center for Political Studies first convened in 1985. The purpose of the task force, a bipartisan group of nationally prominent economic policy experts, is to influence public debate on economic issues that affect black Americans. During the past two years, members of the group have conducted and reviewed research commissioned by the Joint Center on international trade, immigration, employment and training, industrial change, and health care. This document is the culmination of their research and deliberations.

The document is especially relevant today as we move toward a new presidential administration. The U.S. economy is undergoing a number of transformations—escalating budget and trade deficits, shifts from the goods-producing to the service-producing sector, restructuring of the federal tax system. Thus, it is an opportune time to focus on the needs of blacks and others who have made little economic progress over the past decade.

In this document, Dr. Margaret Simms, deputy director of research at the Center, and the other task force members evaluate the effects of changing economic trends and offer recommendations to policy makers to better address the needs of blacks.

The following JCPS staff members helped prepare this statement for publication. Dr. Simms coordinated the project under the supervision of Dr. Milton D. Morris, director of research. Frank Dexter Brown, associate director of communications, supervised the editing and production; Jane Lewin, Susan Kalish, and Constance B. Toliver edited the document; Ms. Toliver and Robert C. Oram formatted the book; Marc De Francis proofread and Nedra Mahone assisted in collecting the data. We also wish to thank James Carr, senior tax analyst with the Senate Budget Committee, for technical advice.

Eddie N. Williams
President
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EXECUTIVE SUMMARY

In this document, the members of the JCPS Economic Policy Task Force evaluate the effects of changing economic trends on black Americans and offer recommendations to better address the needs of blacks and the nation as a whole.

The members of the task force have concluded that many of the economic transformations of the past decade have had adverse effects on blacks, particularly on low-skilled workers. The black unemployment rate, which has remained at least double the white rate since the end of World War II, has been increasing over the past decade despite economic expansion.

The goods-producing sector was once an abundant source of high-wage jobs for workers with modest levels of education. That sector is rapidly declining. Yet, because of their low levels of skills and education the workers displaced from these jobs are unable to compete for jobs in the fast-growing technological and service-producing sectors, many of which are projected to have shortages of labor in the near future.

The members of the task force also point to the rising number of women and youths in the labor market, the influx of low-skilled immigrants, the current U.S. trade deficit, and the decreased federal emphasis on affirmative action and on education and training programs as further reasons why the median income of black families has stagnated over the past decade, and why, relative to white families, their median income has actually fallen.

The task force believes it is crucial for black low-skilled workers to receive education and training so they can compete for jobs in the growing employment sectors, not only to improve their own economic well-being but also to enable the economy to operate at its full potential.

The task force's key policy recommendations can be summarized as follows:

- Macroeconomic policy must be designed to increase the average rate of economic growth, since it is only in times of rapid growth that blacks have made major gains in employment and relative income.
- The federal government must return to vigorous enforcement of affirmative action policies and should assist the transfer of displaced workers into expanding industries.
- The weakening of the nation's global competitiveness must be remedied, not by broad protectionist measures, which tend to hurt low-income consumers and save few U.S. jobs, but by restructuring America's industries and retraining its workers.
- Federal policies should be developed to alleviate the negative economic impact on native-born low-skilled workers created by the influx of low-skilled immigrants over the past decade.
- Existing employment and training programs must be strengthened to meet the needs of the most disadvantaged.
- A national health insurance/access program is needed to improve worker productivity.

As the nation moves toward a new presidential administration, one that could take us most of the way to the year 2000, the task force is convinced that it will be critical for policies to address the needs of black Americans, and that what is at stake is not just the future of blacks, but the future of all Americans.

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1. ECONOMIC POLICY: PAST, PRESENT, AND FUTURE

Overview

In this presidential election year, it is critical for the United States in general, and black Americans in particular, to consider new economic policy directions. Despite the economic expansion of recent years, the U.S. economy suffers from underlying employment problems, and those problems will be exacerbated by the slow growth in the labor force that is predicted for the years 1987-2000. New policy directions are clearly needed if the overall economy is to operate smoothly in the future, and changes are especially needed for blacks because both their employment position and economic well-being (as measured by median family income) have deteriorated in the past decade.

Despite the evident problems in the economy, this current period can be seen as a time of opportunity for policy makers to better address the needs of blacks and other disadvantaged members of American society. Since a new presidential administration will take office in 1989, this is the ideal time to begin to seek effective ways of ensuring the full inclusion of blacks in the economy of the future.

Currently, the needs of the black community and those of the American economy parallel each other in many respects. U.S. policy makers and American voters are concerned about the country's competitiveness in the world economy, with the concern centering on two problems: the federal deficit and the large international trade deficit.¹ Solving these two problems and also expanding U.S. production will require the full participation of blacks in the work force, especially since the white work force will grow much

Despite the economic expansion of recent years, the U.S. economy suffers from underlying employment problems.

more slowly than the black work force over the coming decades. **The key to a stronger and more competitive U.S. economy and an improved economic position for blacks, therefore, is policies and programs that increase the productivity of black workers and ensure their equal access to jobs in the American economy.**

Six areas in which current and future policy will have an especially critical effect on the employment and income positions of blacks are—

- macroeconomic policy
- equal employment opportunity
- international trade
- immigration
- education, employment, and training
- health care.

The federal government has had policies in all six areas since at least the 1960s, although the objectives and policy instruments have changed since President Reagan took office. The Reagan administration, arguing that the pre-1980 programs were counterproductive and that new policies were needed to improve the nation's economic performance, relied more than its predecessors did on the private sector for job creation and economic expansion. In addition, the administration depended on voluntary compliance with equity and consumer protection standards, continued the deregulation of major industries (such as oil and gas, telecommunications, transportation, and financial services) that had begun under the Carter administration, and reduced federal support for means-tested programs (programs in which assistance is based on an individual's income). Policy analysts continue to debate the success of the administration's efforts, but even if the administration's own objectives have been met, the results have clearly been of limited economic benefit to blacks.

Therefore, the Joint Center for Political Studies' Economic Policy Task Force focused its recent deliberations on employment and worker productivity and commissioned papers in the areas

The key to a stronger and more competitive U.S. economy and improved economic position for blacks is policies and programs that increase the productivity of black workers and ensure their equal access to jobs.

of industrial change, international trade, immigration, health care, and employment and training, especially as these subjects relate to black workers. The papers serve as the basis for the policy recommendations presented in the remaining sections of this document.²

As a result of their deliberations, the JCPS Economic Policy Task Force identified the major obstacles to black economic advancement. The obstacles, listed below, will be covered in detail in the next section of this document:

- the failure of the economy to generate a sufficient number of jobs for all those willing to work;
- changes in the nation's industrial structure, which reduce the number of high-paying jobs relative to low-paying jobs for workers without a college education;
- the limited productivity of many black workers due to inadequate education and training and to chronic health problems; and
- continuing discrimination within the job market.

To eliminate or reduce these obstacles to black economic advancement, the task force recommends that the proposals outlined below be implemented in the next administration.

JCPS Task Force Policy Recommendations

Macroeconomic policy. *The primary objective of macroeconomic policy must be to increase the average rate of economic growth in order to expand the number of employment opportunities available. Only in times of rapid economic growth have blacks made significant advancements in employment and relative income.*

Since the 1960s, the federal government has designed policies to regulate the rate of macroeconomic growth in order to expand employment and to control the rate of inflation. Before 1981, the policies

Only in times of rapid economic growth have blacks made significant advancements in employment and relative income.

Increasing both [federal] expenditures and revenues can actually provide a stimulus to the economy while reducing the size of the federal deficit.

called for the government to be aggressive in using tools such as fiscal and monetary policy (adjusting the mix of government expenditures and revenues; and controlling the money supply and interest rates) to affect the rate of overall economic growth; since 1981, the policy has been to "let the private sector do it."

As reasons for its limited use of expansionary fiscal policy, the Reagan administration has cited concern about the deficit and a desire to shift government spending decisions for domestic programs to the state and local levels. (Most of the expansion in federal spending has been for defense-related programs, with government money for defense hardware going to industries with low percentages of black workers.) Instead of relying on an active fiscal policy, policy makers in the current administration have looked to tax reductions and business deregulation to give the private sector incentives for increasing investment and expanding employment. This approach has clearly not been an unqualified success for blacks, who have fared less well than they did before 1980, when other policies were in effect.

Indeed, experience since the end of World War II suggests that blacks make their strongest economic gains during periods of rapid economic expansion. However, because of recent economic uncertainty within both the domestic and the international business communities, prudent policy analysts acknowledge that the large federal deficit limits the government's ability to pursue a vigorous and aggressive fiscal policy. Nevertheless, some room remains for judicious expansion of selected programs, which is necessary for overall economic growth and for improving the economic condition of various population subgroups.

Federal programs can be expanded by one of three means: overall expenditures can be increased (which would increase the budget deficit); some expenditures can be reduced and others increased; and both expenditures and revenues can be increased.

The last approach—increasing both expenditures and revenues—can actually provide a fiscal stimulus to the economy while reducing the size of the federal

deficit. In fact, under a progressive tax system, such as the one we had before 1986, economic expansion tends to reduce the deficit over the long run by increasing government revenues. As businesses and individuals do better economically, they have more income on which to pay taxes. The added income puts individuals into higher tax brackets so that the proportion of their income that goes to government increases.

However, the Tax Reform Act of 1986 changed the tax structure, reducing the number of tax brackets and indexing the income ranges so that the amount of tax an individual pays does not increase unless income increases more rapidly than inflation. Therefore, economic expansion alone will not be as successful in reducing the deficit through increased tax revenues as was the case in the past. For economic expansion to have a significant deficit-reduction effect, changes will have to be made either in tax rates or in the number of taxes levied.

If changes are made in either tax rates or the number of taxes, they will affect blacks and whites differently, depending on how those changes are structured. Since blacks are disproportionately represented among lower-income groups, they are less adversely affected when tax increases are skewed toward higher-income groups and toward businesses. When the increases are skewed toward lower-income groups, blacks carry more of the burden.

Similarly, changes in federal expenditures that might be made to reduce the deficit may also affect blacks and whites differently, depending on how the changes are structured. For example, the 1981 cuts in means-tested programs were heavily weighted toward social programs that were targeted at low-income and socially disadvantaged groups—programs such as Aid to Families with Dependent Children, food stamps, compensatory education, and employment and training—and they had a disproportionately negative effect on blacks. If policy makers decide to pursue deficit reduction by reducing federal social programs still further (or by increasing those programs only modestly), cuts should be structured to minimize the negative impacts on the most disadvan-

Discrimination continues to operate in the labor market, as evidenced by the disparities in employment and earnings between blacks and whites with similar education and experience. Therefore, the country must return to vigorous pursuit of affirmative action policies.

tagged members of American society, who have few alternative sources of support and protection.

Equal employment opportunity. *General economic expansion will not be enough to ensure that blacks make gains proportionate to their representation in the population. And if the nation is not successful in achieving a high rate of macroeconomic growth, equity concerns become even more important. Therefore, the country must return to vigorous pursuit of affirmative action policies.*

Historically, blacks have not had equal access to employment opportunities within the economy. Between 1964 and 1981, the federal government promoted equal employment opportunity through the use of legal sanctions and the federal contracting process. The Reagan administration has placed more emphasis on voluntary compliance with equal employment opportunity goals. Nevertheless, discrimination continues to operate in the labor market, as evidenced by the disparities in employment and earnings between blacks and whites with similar levels of education and work experience.

Furthermore, recent changes in the types of jobs available within the U.S. economy have made the pursuit of equal employment more, not less important. Structural change has reduced the proportion of jobs in manufacturing and increased the proportion in the service sector. Data on the earnings of blacks and whites within the service sector suggest that government will have to develop a set of incentives not only to induce the growing sectors within the economy to employ black workers in proportion to their availability but also to ensure that blacks have access to the better-paying jobs within the rather diverse service industries. Policies also need to be developed to make it easier for displaced workers to transfer to new jobs in these industries.

Government will have to develop incentives to induce the growing sectors of the economy to employ black workers . . . and policies to make it easier for displaced workers to transfer to new jobs in these industries.

International trade. *The long-term goal of improving the U.S. position in the world economy is closely tied to increased competitiveness. However, competitiveness is not enhanced by protectionist policies, such as trade barriers and quotas. Such*

policies can have detrimental effects on low-income consumers and they rarely protect U.S. jobs.

The recent deterioration in the international economic position of the United States (combined with increases in the overseas operations of domestic companies) has been a factor in reducing employment opportunities for American workers, including black workers, in manufacturing. That situation has led policy makers to give renewed consideration to protectionist proposals that would greatly restrict the access of overseas companies to U.S. markets.

On the surface, protectionism appears to benefit everyone because it seems to protect U.S. jobs and the wages paid to U.S. workers. Thus, proponents of protectionism allege that under such measures more money would be generated to circulate within the economy. In reality, however, the situation is much more complicated.

First, certain types of protective action will reduce the availability of low-priced imported goods, thereby adversely affecting low-income consumers (who are disproportionately black). Second, although protectionism is supposed to benefit all U.S. workers by maintaining jobs in the United States, industry studies suggest that selected protective action in the past decade did not prevent businesses from eliminating jobs. Finally, data show that a substantial proportion of imports were originally worked on in the United States and then shipped overseas for additional work before being imported.

Evidence also suggests that restructuring industry and retraining American workers would be a more fruitful approach for maintaining or expanding job opportunities for U.S. workers. However, there may be instances in which some protective action is required. In that case, policy makers should be selective, only instituting restrictive trade policies that have minimal negative effects for low-income consumers and that require protected firms to maintain or expand the number of domestic jobs as a result of the protection. One strategy to improve the probability of compliance with this requirement would be to impose penalties on firms that did not enhance job opportunities for U.S. workers.

Certain types of protective action will reduce the availability of low-priced imported goods, thereby adversely affecting low-income consumers.

U.S. immigration laws have been modified in ways that increase the influx of low-skilled workers, who compete with native-born youths and low-skilled adult workers for jobs.

Immigration. *The immigration of workers to the United States in the past has been a positive influence on the country's economic productivity. This can continue to be the case in the future. However, the current immigration policy, which allows relatively large numbers of low-skilled workers to enter the United States, should be supplemented with a set of policies that reduce the burden that this immigration places on low-skilled native-born workers.*

At the same time that the trends in international trade have moved against U.S. workers, U.S. immigration laws have been modified in ways that increase the influx of low-skilled workers, who compete with native-born youths and low-skilled adult workers for low-skilled jobs. This increase in the inflow of such workers has come about because current immigration policy allows individuals who have relatives in this country or who are suffering political oppression in their country of origin to enter the United States relatively easily, regardless of their potential contribution to the U.S. economy. This shift has been a particularly serious problem for blacks, who constitute a high proportion of the low-skilled adult workers. Although the evidence on the magnitude of the impact of immigration on blacks is mixed, theoretical research³ supports the argument that the immigration of low-skilled workers is harmful to blacks in the short term unless offsetting policies are established to protect the living standard of native-born workers.

Education, employment, and training. *By the year 2000, a substantial proportion of new entrants into the labor force will be immigrants and native-born minorities. For these new workers to make a successful entrance into the work force, the existing employment and training programs will have to be strengthened. The current structure of the Job Training Partnership Act (JTPA) discourages providers from serving the most needy; the training periods are too short; and most of the JTPA programs do not provide the range of basic educational and job-specific skills that the most disadvantaged (including youths) require if they are to obtain decent jobs. For*

children and youths still in school, the basic educational system needs to be improved so that they can make the transition from school to work with skills in reading, writing, mathematics, and logic that will provide the foundation they need to adapt to change in the labor market of the future.

During the 1960s, the federal government developed and expanded a set of programs designed to promote greater participation of minorities in the economy and to provide education and training to the disadvantaged. Since 1981, many of the programs have been restructured, and in several policy areas debate about the appropriate course of action continues.

In the area of education, federal financial support for formal education has declined. More emphasis has been put on state and local support for elementary and secondary programs (and on business sector involvement as well), and more reliance has been put on family support of higher education. These changes would seem to be detrimental to black families, since blacks as a group may not receive the same level of support from state and local governments as they received from the federal government, and relatively few black families have the resources to finance college.

In the area of training, comparable shifts have taken place. The Comprehensive Employment and Training Act (CETA), which included a subsidized public employment component, was replaced by the JTPA, which lacks that component and sharply curtails the use of stipends. The power of the Private Industry Councils (PICs) was increased, and greater emphasis was placed on tying funds to the achievement of performance standards, the most prominent of which is placement in jobs. But many evaluators of employment and training programs feel that these shifts, which give rewards for serving the most job-ready applicants, have led program operators to select participants from the least disadvantaged among those eligible for participation (an approach that is called "creaming").

These changes, many believe, may have been particularly detrimental to disadvantaged female

The current structure of the Job Training Partnership Act (JTPA) discourages providers from serving the most needy.

heads of household and out-of-school youths. And given the projected labor shortage for the U.S. economy, programs that do not address the needs of these groups will leave the economy operating below its full potential. In fact, some policy analysts claim that the key to improving U.S. competitiveness in the world economy is investments that improve worker productivity: investments in research and development as well as in education and training. Indeed, effective education and training policies promise to be highly beneficial not only to the nation as a whole but also to blacks, who have suffered from both discrimination and the country's lower level of investment in their education and training and who are disproportionately highly represented among those who lack both a high school education and job-specific skills.

Health care. Blacks are more likely than others to be jobless because of chronic health problems and are less likely to have access to quality health care. Therefore, a key element in improving worker productivity will be the development of a national health insurance/access program.

Health benefits are currently provided to selected portions of the population by employer-subsidized health insurance plans and by government-sponsored health programs. The government's programs provide medical subsidies for the elderly and for those with limited incomes (usually people who are on public assistance programs). In recent years, as health care expenditures have risen sharply, health care policy has focused almost exclusively on cost containment. Now, however, renewed attention is being paid to access to health care.

This change in emphasis from cost containment to access to health care could have a significant effect on the productivity of all workers and particularly on the productivity of blacks, because blacks in poor health suffer greater losses in earnings than do whites in poor health. When blacks are ill they are more likely than whites to work fewer hours or to drop out of the labor force altogether, and they are less likely to have the option of moving to lower-paying, less-

Blacks in poor health suffer greater losses in earnings than do whites in poor health.

demanding positions. It is not known why blacks suffer greater joblessness when they are in poor health—whether the cause is discrimination, the types of jobs that blacks hold before the onset of illness, or the types of illnesses that blacks have. However, it is known that blacks are more likely to be without health insurance (22.6 percent of blacks compared to 14 percent of whites), which makes it more difficult for them to obtain health care to prevent or control chronic diseases. Therefore, the task force recommends improved access to health care. In addition, it recommends the development of better race-specific data on illnesses so that more targeted programs can also be developed.

Endnotes

1. The federal deficit of \$150 billion in fiscal year 1987 (covering October 1986 through September 1987) was the lowest budget deficit since FY 1981. The persistence of large deficits, in periods of both economic expansion and contraction, has been a cause for concern because of the impact that large deficits have on private investment and their potential impact on inflation. The foreign trade deficit (measured by the difference between exports and imports, excluding cash transfers and payments to foreigners) was \$170 billion in calendar year 1987. That represents a dramatic change from 1981, when there was a *surplus* of \$26 billion.

2. These papers are available in their entirety and may be purchased from the Joint Center for Political Studies, 1301 Pennsylvania Avenue, N.W., Washington, D.C. 20004.

3. Very few analyses of available data provide undisputed answers to the question of labor displacement and some of them are technically flawed. Therefore, the analysis completed for the JCPS Economic Policy Task Force developed a model of migration flows across countries and determined the outcomes based on economic theory and logic.

2. EMPLOYMENT TRENDS

The economic well-being of black Americans, as we noted earlier, continues to lag substantially behind that of their white counterparts. In 1986 (the latest year for which data are available), the median income of black families was only 57.1 percent that of white families. To a great extent, the disparities in income are related to differences in employment and earnings between blacks and whites. It is this difference in employment opportunities that is the main focus of concern for the JCPS Economic Policy Task Force. If employment differentials can be eliminated, then a substantial portion of the income differentials will disappear. We believe that the proposals that have been put forth in this statement will move the nation toward this goal.¹

This section presents the background information on which our recommendations are based. The trends in black employment and income are reviewed. Several factors that are believed to have contributed to the decline in employment prospects for black workers are explored, and evidence is presented to explain why these factors have or have not been important determinants of employment changes. The insight that we have gained from this analysis will be helpful to both policy makers and laypersons who want to influence the direction of federal policy in the future.

Changes in Employment and Income

A majority of the black Americans who were interviewed in a 1987 Joint Center survey² identified unemployment as one of the three most important public policy issues facing the nation. Those black respondents had good reason for calling unemployment the nation's principal public policy issue. In 1987, even though the nation's economy had been

Black unemployment rates have averaged about twice the rates for whites ever since the end of World War II.

steadily expanding for five years, the unemployment rate for blacks nationwide was 13.0 percent—almost 2 1/2 times the unemployment rate for whites, which was 5.3 percent. And among black teenagers, the unemployment rate was 34.7 percent—almost 2 1/2 times the rate for white teenagers, which was 14.4 percent.

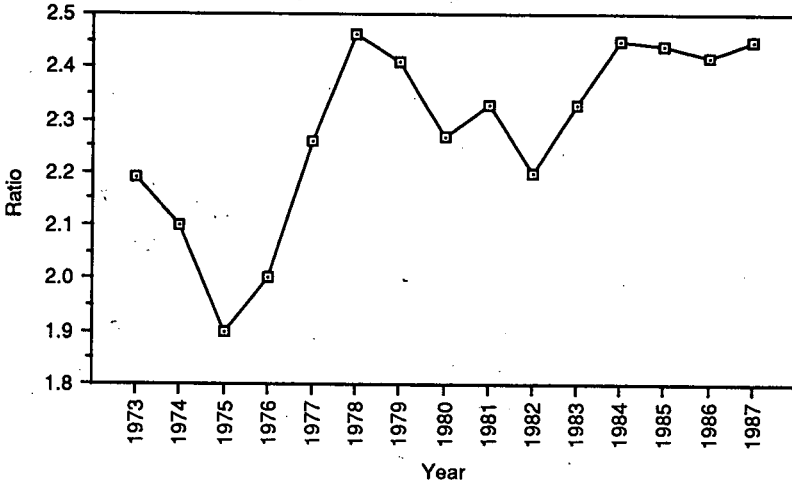
Changes in employment. Black unemployment rates have averaged about twice the rates for whites ever since the end of World War II, but a change in the cyclical nature of the relationship took place in the mid-1970s. Until then, the ratio of black to white unemployment had tended to rise during economic contractions and fall during economic expansions. Since 1976, however, the ratio has tended to rise rather than fall during economic expansions (figure 1). In addition to being more likely to be unemployed, black workers are also more likely to be employed part-time when they want to work full-time.

The higher relative unemployment rates for blacks since 1976 are related to a number of different changes within the U.S. economy. One involves changes in the labor force participation rates (the proportion of the population that is either employed or actively looking for work) of different groups within the society. Other factors are related to the changing structure of the U.S. economy—the decline in manufacturing, the growth in the nongoods-producing sector, and the growing importance of international trade. For blacks, the effects of these changes were intensified by two recessions in the early 1980s.

In 1987, even though the nation's economy had been steadily expanding, the unemployment rate for blacks nationwide was almost 2 1/2 times the unemployment rate for whites.

Since the end of World War II, the U.S. labor force participation rate has increased even more substantially than employment opportunities. Thus, competition for the jobs being created has been intense, and even though employment rose by 90 percent between 1947 and 1985, the unemployment rate also drifted upward. The primary causes of the increasing labor force participation rate are the larger proportion of adult women (especially married women with children) who are in the paid work force

Figure 1
Black-to-White Unemployment Ratios, 1973-1987



Note: For detailed data and sources, see Comprehensive Table A in the appendix.

and the greater numbers of white teenagers who have joined the labor force. Some economists have argued that this increase in labor force participation came about when white families sent more of their members—spouses, children—out into the labor force so that the family could maintain its standard of living in a period of high inflation and low growth in real wages. This increase in multiple earners in white families helps explain why black income has declined relative to white income; black families are more likely to be single-parent families and therefore are more likely to have fewer members of working age to send into the work force.

In fact, the growth in labor force participation among whites has reversed a long-standing relationship: just after the war, in 1948, the labor force participation rate of nonwhites was 6 percentage points higher than that of whites;³ in 1985, the labor force participation rate of whites was 2 percentage points higher than that of blacks. Because the proportion of blacks entering the labor force between 1948 and 1985 declined relative to the proportion of whites

The increased competition from white women and teenagers and from immigrants, and the changing nature of job opportunities have all played roles in the increased joblessness among blacks.

entering the labor force, the growing unemployment rates of blacks relative to whites cannot be attributed to greater exposure to unemployment. In other words, since more whites relative to blacks are looking for work (and an individual has to be an active participant in the labor force to be counted as unemployed) than was the case in 1948, the black-white unemployment ratio would have fallen if nothing else had changed. But the increased competition from white women and teenagers and from immigrants, and the changing nature of job opportunities have all played roles in the increased joblessness among blacks.

Blacks have, to be sure, made some employment gains during the postwar period, and these should not be overlooked. Blacks have increased their representation among professional and managerial workers, with the proportion of blacks in these jobs increasing from 4 percent in 1940 to 14 percent in 1980, and they are much less likely than in the past to be found in domestic and farm employment. However, blacks are still more likely than whites to be found in the low-skilled blue-collar occupations, and joblessness is very high among blacks with less than a high school education. Among black adults without a high school diploma, only about one-fourth of the women and one-half of the men are employed.

Changes in family income. Economic well-being, as measured by family income, is closely related to employment for most families, since the bulk of income is derived from wages and salaries. Changes in absolute and relative income for blacks parallel the fluctuations in employment and economic activity. Since World War II, as the U.S. economy as a whole has expanded and contracted, the income levels of blacks have increased and decreased accordingly. Between 1947 and 1986, the gross national product (GNP) increased more than 250 percent in real terms (that is, adjusted for inflation), and real per capita disposable income doubled—but most of the growth took place between 1960 and the mid-1970s (table 1). During that period of rapid economic

Table 1
Median Family Income, by Race, Selected
Years, 1947-1986 (constant 1986 dollars)

Year	Income		
	Whites	Blacks	Black-White Ratio
1947	\$ 15,497	\$ 7,923	51.1%
1950	15,691	8,513	54.3
1955	18,889	10,417	55.1
1960	21,603	11,959	55.4
1965	25,198	13,876	55.1
1967 ^a	27,040	16,729/16,010	61.9/59.2
1970	28,904	17,730	61.3
1971	28,893	17,435	60.3
1972	30,269	17,990	59.4
1973	31,076	17,935	57.7
1974 ^b	29,812	17,801	59.7
1975	29,067	17,885	61.5
1976	29,926	17,801	59.5
1977	30,289	17,303	57.1
1978	30,870	18,284	59.2
1979	30,875	17,483	56.6
1980	29,146	16,864	57.9
1981	28,352	15,993	56.4
1982	27,948	15,447	55.3
1983 ^b	28,435	16,025	56.4
1984	29,226	16,289	55.7
1985	29,713	17,109	57.6
1986	30,809	17,604	57.1

Source: U.S. Bureau of the Census (1988), table 10.

Note: Beginning in the year 1979, data are based on householder concept and restricted to primary families. For the years 1960 to 1978, the number of white and black-and-other-races families are based on the 1970 census. For the years 1979 to 1986, data are based on 1980 census population controls.

^a Blacks and other nonwhites to 1967, blacks only afterwards. Both figures are presented for 1967.

^b Based on revised methodology. Periodically, the Census Bureau revises its estimates to reflect changes in the composition of the population. Data for the year of the change and all succeeding years are not strictly comparable to those in previous years.

expansion, median family income for blacks increased both absolutely and relative to white family income. Since that time, however, the median real income of black families has stagnated, and in relation to the income of white families, the median real income of black families has fallen.

In absolute terms, black median family income as adjusted for inflation fell during much of the past decade (1976-1985). By 1986 it had regained some of the lost ground, but in that year it was still lower (at \$17,604) than it had been in the mid-1970s (more than \$17,800).

The ratio of black to white median family income shows a comparable pattern. In the mid-1970s, the median income of black families was 61 percent of the median income of white families; in 1982 it had fallen to 55 percent, and by 1986 it had regained some of the lost ground and had risen to 57 percent.

Table 2 clearly shows the effect that lack of full-time employment—and the smaller number of family members who can work full-time—has on black family income. Black families in which the head was fully employed in 1986 had a median family income of \$28,690, compared with a much lower median of \$17,604 for all black families. The median income of black families with a fully employed head of household was 75 percent of the median income for comparable white families. Among families in which *both* husband and wife were employed, black income was 82 percent of white family income. In contrast, black families with one or no earners had incomes that were between 59 percent (female head) and 71 percent (male head) of the incomes of comparable white families.

Obviously, the employment problems of black adults have more of an effect on black family income than does the position of black youths within the labor market. Yet the poor position of black youths in the work force may have dire consequences for future black family income. Young people who have little labor market experience are more likely to grow up to be marginal participants in the labor force. And young women who do not obtain employment are more likely to have children early and be unable

Since [the mid-1970s] the median real income of black families has stagnated, and in relation to the income of white families, the median real income of black families has fallen.

Table 2

**Median Family Income, by Race, Family Type,
and Employment Status of Householder,^a 1986**
All Families

	Income		
	Whites	Blacks	Black-White Ratio
All families	\$30,809	\$17,604	57.1%
Married couple	33,426	26,583	79.5
Wife employed	38,972	31,949	82.0
Wife not employed	26,421	16,766	63.5
Male householder	26,247	18,731	71.4
Female householder	15,716	9,300	59.2

**Families With Householder Who Worked Full-Time,
Year Round**

	Income		
	Whites	Blacks	Black-White Ratio
All families	\$38,413	\$28,690	75.2%
Married couple	40,375	34,179	84.7
Wife employed	42,957	37,679	87.7
Wife not employed	35,521	24,304	68.4
Male householder	32,018	26,202	81.8
Female householder	23,353	17,985	77.0

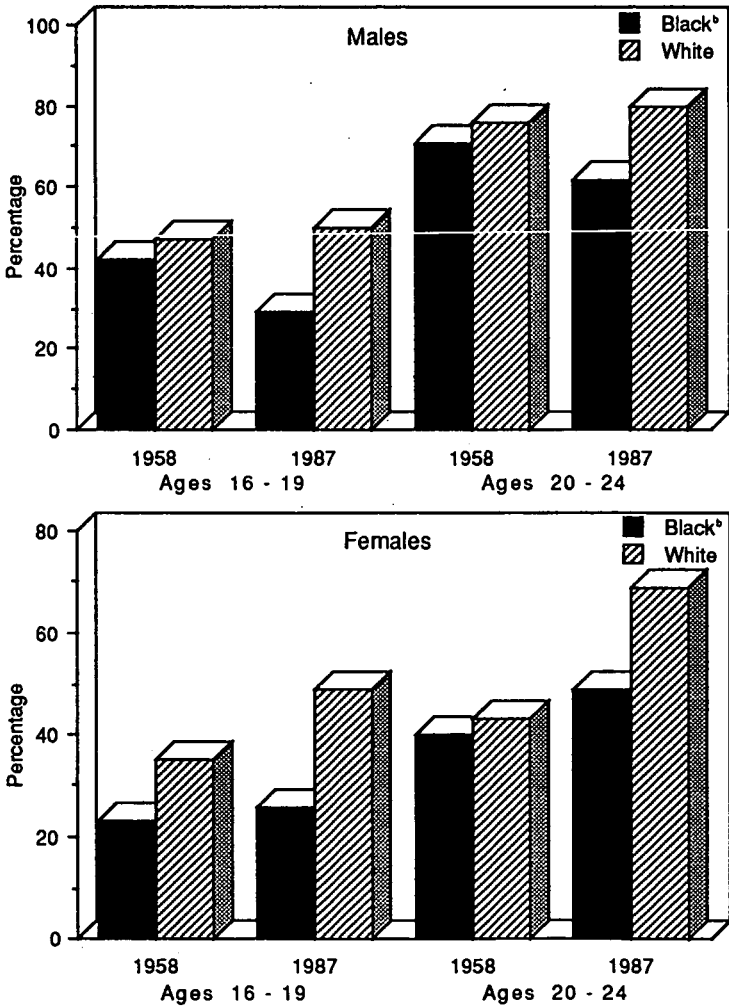
Source: U.S. Bureau of the Census (1987).

^aThe householder is the person who owns the house or in whose name the dwelling unit is rented. The Census Bureau no longer uses the term head of household in recognition of the fact that "many households are no longer organized with autocratic principles" (U.S. Bureau of the Census [1980a]).

to gain meaningful work experience, so that the likelihood of long-term welfare dependency increases. It is especially troubling, therefore, that the changes in relative rates of employment have been most adverse among youths (ages 16-24). Whereas white youths, both male and female, have increased their employment rates since the 1950s, black male youths have had a sharp drop in their rates of employment and black female youths have had few gains (figure 2).

EMPLOYMENT TRENDS

Figure 2
Employment-to-Population Ratios for Youth, by Race and Sex, 1958 and 1987^a



Note: For detailed data and sources, see Comprehensive Table B in the appendix.

^a The employment-to-population ratio is the employed as a percent of the noninstitutional population.

^b Blacks and other nonwhites in 1958; blacks only in 1987.

Future prospects. The growth in the U.S. labor force is expected to slow down over the next decade because of low population growth and a leveling off of the labor force participation of white women. Nevertheless, the employment prospects for low-skilled workers, especially blacks, will not necessarily improve. Blacks are not well represented in the occupations that are expected to grow the fastest between 1986 and 2000 (such as medical assistants and computer programmers), and they are overrepresented in the slow-growing or declining occupations (such as machine operators and assemblers). Moreover, even though the labor force as a whole will be growing less rapidly, competition for low-skilled jobs is likely to remain strong, as new immigrants continue to enter the country. Immigrants, currently 7 percent of the work force, are expected to account for about 23 percent of the increase in the labor force during the final 15 years of the century. (The effects of immigration are discussed in more detail at the end of this chapter).

The Shift From a Manufacturing Economy to a Service Economy

The growing unemployment rates of blacks—particularly black males—also reflect changes in the goods-producing sector of the economy, especially manufacturing.⁴ That is the sector that has traditionally provided high-wage jobs to workers with low levels of skills and education. Between 1940 and 1975, the job opportunities within manufacturing were a major means for black families to move up into the middle-income bracket.

However, during the entire postwar period, the manufacturing sector has been declining. This decline is clearly reflected in the proportion of all U.S. workers which that sector used to employ and which it has employed in recent years. In 1947, manufacturing employed more than one-third of all U.S. workers; in 1985, it employed less than one-fifth—a decline of 40 percent. Furthermore, the Bureau of Labor Statistics projects that employment in manufacturing industries will decline by more than 4 percent between 1986 and 2000. On the basis of that projection and other projected changes in em-

***B**etween 1980 and 1985, black employment [fell] considerably faster than overall employment in 5 of the 7 [declining manufacturing industries].*

ployment, it is predicted that manufacturing will account for only 13.7 percent of all jobs in the year 2000.

On the surface, the decline in manufacturing would seem to have been offset by a corresponding rise in the service-producing sector—a sector in which a substantial proportion of jobs are low-wage, low-skill.⁵ Between 1948 and 1985, full-time equivalent employees in all services increased by approximately 30 percent; FIRE services alone (finance, insurance, and real estate) increased their share of full-time equivalent employees by approximately 80 percent. In 1985, the FIRE, retail, and wholesale services accounted for a larger share of employment than manufacturing did (27.5 percent and 20.1 percent, respectively). But although that shift in the demand for low-skilled labor may have allowed many workers to escape extended periods of unemployment, it had an adverse effect on the wages of the low-skilled. The service jobs that poorly educated workers were qualified to fill did not pay as much as the manufacturing jobs they had lost, nor did the service jobs provide as much job security or as many employee benefits. This squeeze on low-skilled workers has been particularly serious during the past 10 years.

The service jobs that poorly educated workers were qualified to fill did not pay as much as the manufacturing jobs they had lost, nor did they provide as much job security or as many employee benefits.

The decline in manufacturing employment and the shift toward service employment that has accompanied it have had consequences for the distribution of earnings among members of the work force.⁶ As discussed earlier, manufacturing employment has been declining as a share of total employment throughout the post-World War II period. However, the negative impact on black workers has only been noticeable in recent years. Between 1977 and 1985, manufacturing employment, as measured on the basis of full-time workers, declined from 24 percent of total U.S. employment to 20 percent (see Comprehensive Table C in the appendix). Black workers have suffered large and serious employment losses over this same time. During the first part of the period (up to 1980), in industries which experienced employment decreases, black employment declined less than total industry employment did. Between 1980 and 1985, however, when total employment declined in 7

of the 12 manufacturing industries we examined, black employment declined considerably faster than overall employment in 5 of the 7 (electrical machinery, chemicals, fabricated metals, apparel, and iron and steel). And in the manufacturing industries with employment growth, the new employment appears to have gone disproportionately to whites. In 4 of the 5 industries that increased their payrolls (plastics, furniture, wood, and household products), black employment declined. The only exception to this trend was motor vehicles, where black employment increased.

An analysis of industry-specific wages clearly shows that few sectors pay wages comparable to those in manufacturing (figure 3). In 1980, fully one-quarter of all manufacturing jobs paid more than 50 percent above the mean wage for the economy as a whole (the mean wage was \$13,007). This share was matched by construction and distributive services, but within the main private industry service sector, only finance, insurance, and real estate even approached that percentage. In the retail, consumer service, and nonprofit sectors, only 7 to 14 percent of jobs were high-wage. And well over one-half of all service jobs paid wages that were only one-half to three-quarters the U.S. mean wage.

Moreover, if we look at industry earnings by race and sex, we find that blacks and women are more likely to suffer as a result of these sectoral shifts. Although white males are more vulnerable to the loss of very-high-wage jobs in manufacturing, it appears that blacks and white women may suffer more if forced to take jobs outside of manufacturing. They are much less likely than white males to have above-average earnings in nonmanufacturing industries, and they are more likely to land in very-low-wage jobs (figure 4).

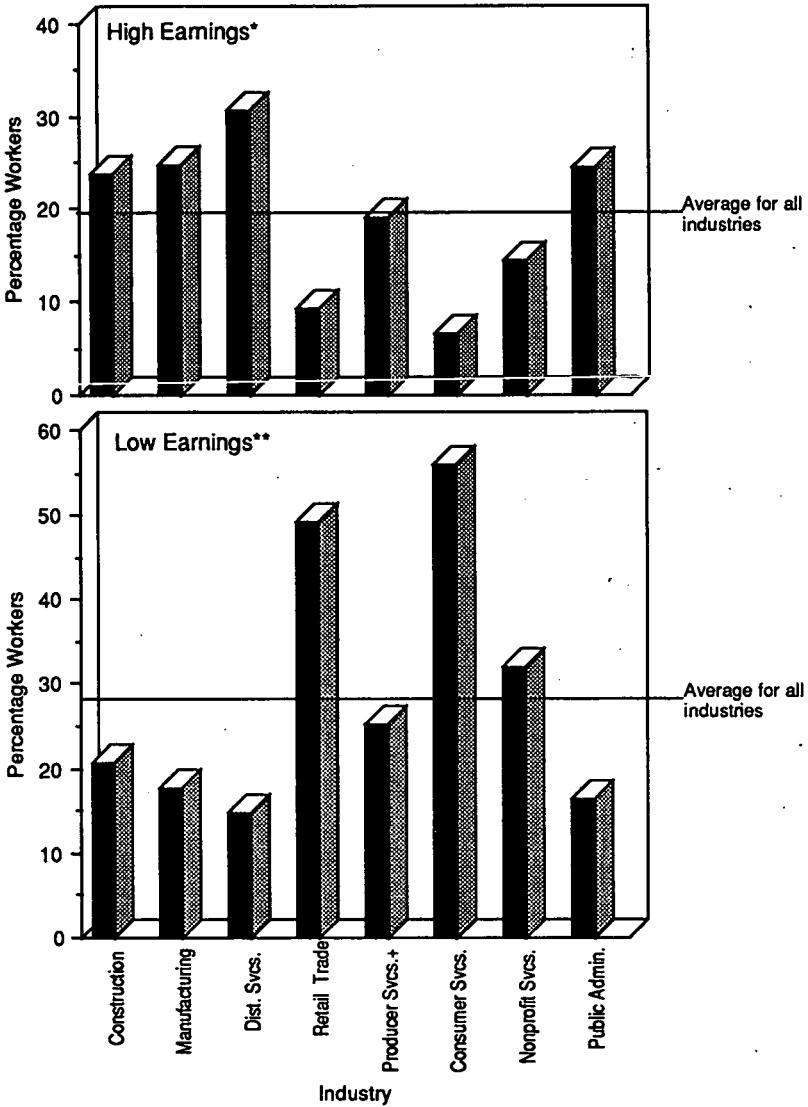
The Impact of Changes in International Trade

One reason for the decline in America's manufacturing sector is the changing nature of the U.S. role in the world economy. Since the end of World War II,

In the manufacturing industries with employment growth, the new employment appears to have gone disproportionately to whites.

Figure 3

Percentage of Workers In High and Low Earnings Classes, by Industry, 1980



Note: Industry categories for the top graph are the same as those in the bottom graph. For detailed data and sources, see Comprehensive Table D in the appendix.

* More than 153% of the mean wage (\$13,007/year). ** Less than 46% of the mean wage.

+ Includes finance, insurance, and real estate.

imports as a share of GNP have increased three times as fast as exports. In recent years, the U.S. public has become aware of the growth in the nation's international trade deficit—that is, the difference between exports and imports.⁷ Many observers believe that the current trade deficit reflects the failure of American businesses and workers to compete effectively in the international arena. Those observers also believe that the failure has caused the shift in the distribution of employment among different industries, as discussed in the previous section.

However, our detailed analysis of the international trade situation reveals that the relationship between trade and employment is very complicated. If economic and other changes originating outside the United States contribute to the trade deficit, the effect on U.S. employment is likely to be adverse. But if domestic factors (such as problems with the structure and performance of U.S. industries) are the source of the trade deficit, then the deficit is not the cause of changes in domestic employment.

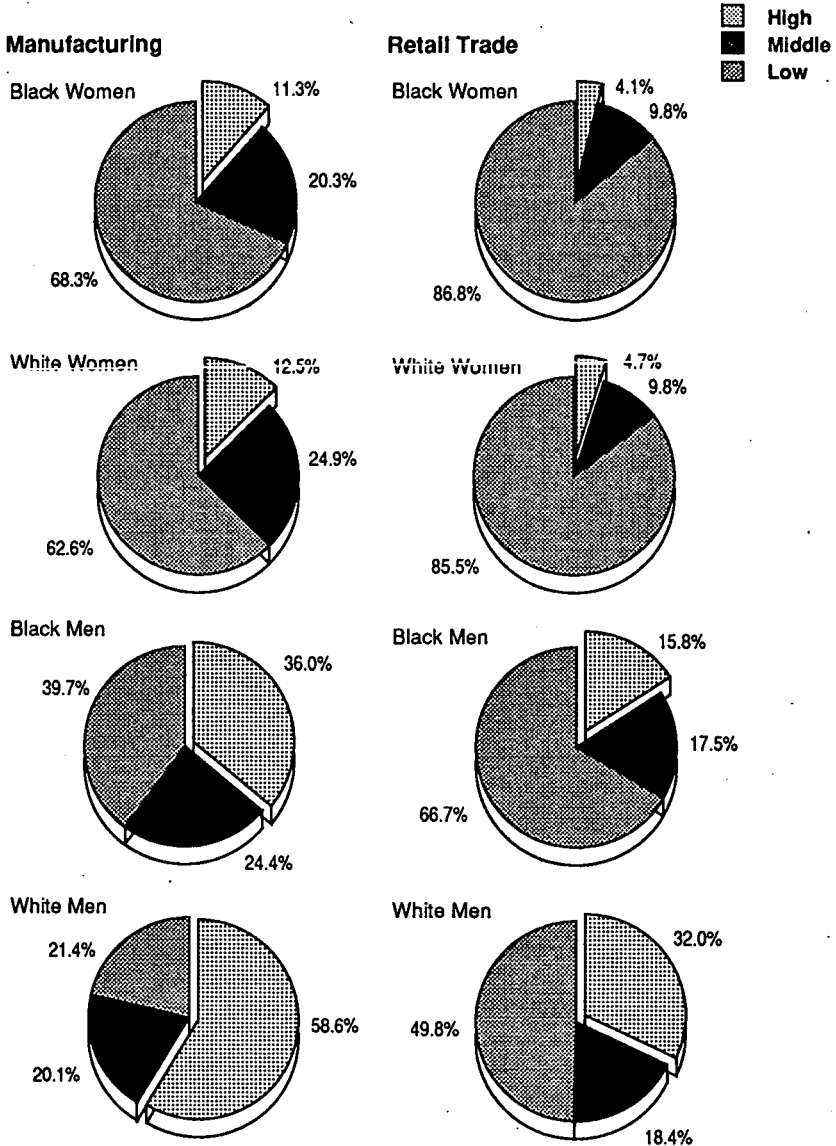
Between 1982 and 1987, domestic factors clearly contributed to the growing trade deficit. The tax cuts passed in 1981 increased domestic demand, including the demand for imports. Other changes in the economy, such as downsizing (the scaling down of corporate staffs) and corporate takeovers, indicate the presence of problems with the industrial structure of the U.S. economy—problems that have led to inefficiencies in the allocation of labor and other factors of production. But although jobs may have shifted from one company or sector to another, the net effect on the number of jobs available in the economy is unclear. In any case, if there has been a change in total employment it cannot be corrected by the establishment of trade barriers, since the problems are internal to the U.S. economic system.

Disturbances in the economies of foreign countries between 1982 and 1987 also contributed to the huge trade deficit. After 1982, the major industrial countries of the world, as well as the developing countries (except in Asia), had lower rates of growth than the United States did, and that gap tended to increase the U.S. demand for imports relative to other

The major industrial countries, as well as the developing countries (except in Asia), had lower rates of growth than the United States did, and that gap tended to increase the U.S. demand for imports relative to other countries' demand for our exports.

Figure 4

Distribution of Workers Among the High, Middle, and Low Earnings Classes,^a Manufacturing and Retail Trade Sectors, 1980



Note: For detailed data and sources, see Comprehensive Table E in the appendix.

^a High = 115% of the mean wage or more; middle = 77%-114.9% of the mean wage; low = 76.9% of the mean wage or lower.

countries' demand for our exports. In addition, the United States was at a disadvantage in international markets because of the high foreign-exchange value of the U.S. dollar. This has had a significant impact on the developing countries of the Third World, whose importing capacity is limited and which constitute a large potential market for American products.

Finally, other countries' trade barriers are sometimes cited as another factor contributing to the U.S. trade deficit. Our analysis, however, does not show a clear link between these barriers and U.S. competitiveness in world markets. The effect of trade barriers varies, depending on the types and characteristics of the products being traded.

Within that framework, the task force analyzed the data for the mid-1980s. Our analysis revealed that external disturbances were in fact a major cause of the loss of U.S. jobs that would otherwise have been created between 1983 and 1987. Before 1983, the trade deficit was responsible for only a minimal loss of jobs. Beginning in that year, which is when the United States began to experience more economic growth than some other nations, trade-deficit-related job losses increased. The number of U.S. jobs that would have been created in the absence of the trade deficit (potential jobs as opposed to jobs that already existed) grew from 1.2 million in 1983 to 3.2 million in 1986 (see Comprehensive Table F in the appendix).⁸ Although this is a small portion of total nonagricultural payroll employment in the United States, the growth in U.S. payroll employment between 1985 and 1986 was only 3.1 million. Therefore, the loss of employment from trade contributed to a significant loss in potential employment growth.

However, this finding does not lead to the conclusion that trade barriers will increase domestic employment. Some U.S. producers may be adjusting to the unfavorable international environment by shifting the share of their company's production among the United States and other countries in which they have affiliates, to minimize the combination of labor and transportation costs. Data on intrafirm imports reveal that a significant proportion of imported items in fact

The high foreign exchange value of the U.S. dollar . . . had a significant impact on the developing countries of the Third World, whose importing capacity is limited and which constitute a large potential market for American products.

contain some domestic labor; that is, those products were initially worked on in the United States, were then exported for further work, and were subsequently imported. Thus, measures to reduce the volume of imports might have an adverse effect on U.S. employment rather than a positive effect. Moreover, the ability of companies to shift production levels among countries in which they do business indicates that policy changes will generate further adjustments. So any policy that is rigidly applied will soon be rendered obsolete.

The Impact of Immigration

Another influence on the domestic work force is immigration.⁹ It is not just imports and exports that move across international boundaries. Labor does as well, and the international movement of labor has an impact on the employment of native-born Americans.

In recent years, the heavy influx of immigrants into the U.S. job market has drawn the attention of policy makers, and the inflow is projected to continue into the next century. In the year 2000, it is estimated that immigrants will constitute over 20 percent of all new entrants to the work force. A common impression is that immigrants adversely affect the well-being of native-born residents by taking jobs away from them and imposing social costs on taxpayers. However, a careful analysis of immigrant workers indicates that their impact depends on the characteristics of both the immigrants and the native-born workers.

In the year 2000, it is estimated that immigrants will constitute over 20 percent of all new entrants to the work force.

Immigrants who enter the country for economic reasons—that is, to obtain better income and employment opportunities (as opposed to those joining family members or seeking political asylum)—usually have a positive impact on the overall economy in the long term; they provide additional production and add to the domestic demand for goods and services. In the short term, though, these immigrants do provide competition for certain types of jobs. Immigrants with few job skills, in particular, have an adverse impact on native-born workers. They tend to lower the wages for all low-skilled workers, since

initially the supply of such workers increases while demand remains relatively stable. As a result, native-born workers in low-skilled jobs become worse off economically than in the past. The increased competition for these jobs makes it relatively more attractive for workers to invest in education and job-specific skills since the spread between the wages for low-skilled jobs and the wages for high-skilled jobs would increase. However, workers may not have the funds that would enable them to take advantage of the potential gains from moving to higher-skilled employment, and offsetting policies would have to be implemented to limit the negative effects of immigration on low-skilled native-born workers.

Endnotes

1. The task force recognizes that employment is not the only important economic issue that needs to be addressed. Racial differentials in wealth, particularly business ownership, are another. Likewise, we acknowledge that other levels of government—states and localities—also have to be involved in these policy areas. However, the decision was made to focus on only one area for the purpose of this document, so that the issues could be examined in detail.
2. Conducted by the Gallup Organization for the Joint Center for Political Studies.
3. Separate statistics on blacks were not tabulated in 1948; however, blacks were 90 percent of the nonwhite group at that time.
4. In addition to manufacturing, the goods-producing sector includes agriculture, mining, and construction.
5. The service-producing sector includes distributive services, producer services, consumer services, nonprofit services, government services, and other services.
6. For a detailed discussion of these issues, see Williams, 1988, JCPS Working Paper.

EMPLOYMENT TRENDS

7. For a detailed discussion of international trade issues, see Johnson, 1988, JCPS Working Paper.
8. The potential loss, called the trade-related employment gap, is calculated by combining the labor requirement gap for U.S. exports and the labor requirement gap for domestically producing U.S. imports. See Comprehensive Table F in the appendix for a detailed explanation.
9. For a detailed discussion of immigration issues, see Chiswick and Alexis, 1988, JCPS Working Paper.

3. WORKER PRODUCTIVITY: INVESTMENT IN HUMAN RESOURCES

As this document has made clear, the U.S. economy is undergoing changes that create adverse effects for some American workers. Overall employment has been expanding modestly; nevertheless, the labor supply for low-skilled jobs has increased at the same time that the number of high-wage low-skilled jobs has declined. These changes dictate the need for policies that will improve the employability of those workers at the lower end of the labor market.

Policies directed toward low-skilled workers are needed not only to improve individuals' prospects but to improve the economy's performance as well. Projections of the coming shortage of labor suggest that the country will be in greater need of skilled minority workers. Real GNP is expected to increase by 2.4 percent a year between 1987 and 2000. This projected rate of economic growth is slightly lower than the rate for the 14-year period 1972-1986 but is higher than the rate for the 7-year period 1979-1986. On the international side, the competition from foreign countries that has prevailed during the past six years is not likely to dissipate, which means that U.S. producers will face stiff competition both at home and abroad.

In order for the United States to increase the rate of economic growth and improve its competitiveness, it will need more productive workers. In the past, investment in human resources has been a major factor in the expansion of the U.S. economy as well as in improving the well-being of individuals within U.S. society. The projections for the future indicate that this investment may be even more important now. Three areas of investment are crucial: basic education, occupational and job-specific training, and

Three areas of investment are crucial: basic education, occupational and job-specific training, and health care.

health care. Although both public and private resources are needed to address these issues, we focus here on the public role in human resource development.

Education and Training

The training provided to workers both before they enter the work force and during their work lives is critical to their performance in the U.S. economy and to the United States' performance in the world economy.¹ Although the major burden of financing education and training has been borne by individuals and businesses, different levels of government have played differing roles in education and training for most of this century. Every state in the Union provides free public education through the 12th grade, and government at the federal, state, and local levels provides funds for vocational training and adult basic education. Federal and state governments make scholarships available for the pursuit of higher education, and the military provides training for individuals who enlist. More recently, federal funds have been provided for government-sponsored training programs that are offered to disadvantaged individuals through local delivery systems.

Although significant advances have been made in the provision of basic education and training to U.S. workers since World War II, a number of serious deficiencies remain in programs for displaced workers and individuals with low levels of education or little work experience. These deficiencies are particularly important for two reasons. First, projections for the year 2000 indicate that the fastest growing occupations, such as medical technician and computer analyst (for a ranking of these and other occupations see Comprehensive Table G in the appendix) will require greater levels of education than the fastest growing occupations in the past have required. Second, a strong correlation exists between education and economic status: regardless of race, individuals with more education do better economically than those with less. Individuals with high school diplomas are substantially more successful economically

A number of serious deficiencies remain in programs for displaced workers and individuals with low levels of education or little work experience.

than individuals without such diplomas, and those with education beyond high school are generally the most successful, although whites gain more from additional education than blacks do.

Over the next 12 years, the labor force is expected to increase by only 17 percent as the working-age population starts to shrink. Therefore, workers who had been considered expendable will be needed in the labor force, but only those workers with sufficient job skills will find employment. The share of jobs requiring workers to have completed at least one year of college is expected to increase over the coming decade, while the share requiring only a high school diploma is expected to decline. The sharpest employment decreases are expected in those jobs where most workers have less than a high school education. This means that workers who enter the labor force without basic skills will find it harder to obtain jobs, especially jobs with any opportunity for upward mobility. Even the manufacturing jobs that remain will be restructured to require more technical skills than many current employees have. These facts have serious implications for black workers since 25 percent of them have less than a high school education and only 12 percent have four or more years of college, compared to rates of 17 and 23 percent, respectively, for white workers.²

Economic gains are also associated with enrollment in some of the government-sponsored training programs offered outside an educational setting. Selected activities operated under the three federally funded programs—Manpower Development and Training Act (MDTA), Comprehensive Employment and Training Act (CETA), and Job Training Partnership Act (JTPA)—have been effective in increasing the employment and earnings of women (especially minority women) but have been much less successful for men. Evaluations of these training activities indicate that they are most beneficial for the economically disadvantaged and seem to lead to a modest decline in the size of welfare payments.³ However, the most effective programs tend to be those that are the most comprehensive and that have the highest costs per participant.

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Health Care

A review of the literature on the health status of individuals shows that poor health is associated with lower earnings and that this is more true for blacks than for whites.⁴ Further, the way in which earnings are affected by poor health is different for blacks. Whites in poor health are more likely to remain in the labor force than are blacks in poor health. There are two plausible reasons for this difference. For whites, poor health may result in moving to lower-wage jobs, but this option may not be available to black workers because they are more likely to have occupied low-wage jobs before their health worsened. If this is true, poor health is causing low-income blacks to spend less time on the job or to leave the labor force.

An alternative explanation for the racial differential in the relationship between health and earnings is that blacks may suffer from different and more severe health problems and this could contribute to the different impact poor health has on their earnings. However, not much evidence exists on the effects of specific illnesses on the labor productivity of blacks and whites. The primary reason it is difficult to determine which mechanism is chiefly responsible for the racial differential in the relationship between poor health and decreased earnings is the lack of race-specific data. It is clear that these data are needed in order to develop appropriate policies to reduce the impact of poor health on worker productivity. Although available studies of the costs of health conditions do not contain race-specific cost estimates, the total costs of lost earnings from arthritis, drug and alcohol abuse, and mental illness are available. These estimates make it clear that substantial earnings losses do exist at the aggregate level. For example, an estimated \$190.7 billion in earnings were lost in 1980 because of alcohol abuse, drug abuse, and mental illness.

Given this connection between the health of workers and labor productivity, it is clear that changes in the financing and delivery of health care are needed to improve the economic condition of workers at the low end of the employment ladder. Currently, many of these workers (and the unem-

Poor health is associated with lower earnings and that is more true for blacks than for whites.

ployed, as well) remain uncovered by adequate health plans. Many health plans do not cover preventive health care, increasing the likelihood that workers will develop chronic health problems that are not adequately treated. Policies are needed to reduce the economic loss to society that results from these chronic conditions.

Endnotes

1. For a detailed discussion of employment and training issues, see Simms, 1988, JCPS Working Paper.

2. The figures for blacks are even worse when the entire black population (which includes all jobless blacks) is considered. A little over 39 percent of the black population over the age of 16 has less than four years of high school education (compared to 26 percent of whites) and only 9 percent have college degrees (compared to 18 percent of whites).

3. These findings are based on evaluations of the MDTA and CETA programs. JTPA activities have not been thoroughly evaluated yet, but many of these activities are similar to those operated under CETA. Since many of the evaluations do not involve actual experiments, the results cannot always be conclusive. Some evaluations, for example, are based on the use of comparison groups that may include individuals who participated in the program (but who cannot be identified as program participants), and the results are probably biased downward.

4. For a detailed discussion of health care issues, see Headen, 1988, JCPS Working Paper.

4. CONCLUSIONS

As we enter the 1990s, federal policy must focus on accelerating economic growth and increasing international competitiveness. These are prerequisites for overall expansion of employment, but targeted programs are needed as well. As indicated throughout this statement, it is clearly in the national interest that those concerned with economic growth and international competitiveness address the employment prospects of blacks. Strategies need to be developed that address the impact of industrial change, international trade, and immigration on black participation in the U.S. economy. In addition to general policies in the areas of macroeconomics, trade, and immigration, targeted programs in education, training, and health care have been identified as necessary to improve the employability of low-skilled workers.

The previous chapter documented the reasons for the policy recommendations presented at the beginning. We want to emphasize the importance of the recommendations at this point.

Macroeconomic policy. As explained throughout this statement, the growth rates of the 1980s were not sufficient to reduce unemployment among blacks to the levels of earlier periods, and many of the jobs created in the 1980s pay low wages and provide little room for upward mobility. If the past is an indicator of the future, it will take a period of stronger economic expansion to bring down unemployment rates among blacks. Rapid economic growth will also make it easier to obtain funding for the targeted employment, education, and health programs that are so badly needed, especially for low-skilled workers. While acknowledging that the federal deficit is a valid concern, blacks can still push for policies that have a beneficial effect on those at the lower end of the economic scale.

It is clearly in the national interest that those concerned with economic growth and international competitiveness address the employment prospects of blacks.

CONCLUSIONS

International trade. In developing strategies to improve U.S. competitiveness in the world economy, policy makers should aim toward increasing worker productivity in order to make gains in both employment and consumption. Black Americans in particular are not well served by policies that protect American products without protecting American jobs, or those that increase consumer prices while reducing the range of products available.

Education, employment, and training. Policy makers must also give high priority to providing adequate education, employment, and training programs. This has been a refrain throughout this statement, but it cannot be emphasized enough. Such programs are vital to improving the economic condition of more disadvantaged workers, who are disproportionately black. They provide the best hope for black manufacturing workers displaced by industrial change and international competition to maintain their standard of living. These programs are also needed because low-skilled workers—both native-born and immigrants—will be a larger proportion of the work force and should have access to a wider range of employment opportunities. The key to the well-being of workers and their families in coming decades is the ability to obtain a job that pays a living wage and provides opportunities for upward mobility. Programs that are effective in this regard are not inexpensive. However, the investment is a sound one.

As we face a new presidential administration, it is critical that new policies be developed to address the needs of black Americans. What is at stake is not just the future of blacks, but the future of all Americans.

As we face a new presidential administration, one that could take us most of the way to the year 2000, it is critical that new policies be developed to address the needs of black Americans. What is at stake is not just the future of blacks, but the future of all Americans.

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APPENDIX
Comprehensive Table A
Unemployment Rates, by Race, Selected Years, 1948-1987

Year	Unemployment Rate			Unemployment Ratios	
	White	Black & Other	Black	Black & Other/ White	Black/ White
1948	3.5%	5.9%	-	1.69	-
1953	2.7	4.5	-	1.67	-
1958	6.1	12.6	-	2.07	-
1963	5.0	10.8	-	2.16	-
1968	3.2	6.7	-	2.09	-
1973	4.3	9.0	9.4%	2.09	2.19
1974	5.0	9.9	10.5	1.98	2.10
1975	7.8	13.8	14.8	1.77	1.90
1976	7.0	13.1	14.0	1.87	2.00
1977	6.2	13.1	14.0	2.11	2.26
1978	5.2	11.9	12.8	2.29	2.46
1979	5.1	11.3	12.3	2.22	2.41
1980	6.3	13.1	14.3	2.08	2.27
1981	6.7	14.2	15.6	2.12	2.33
1982	8.6	17.3	18.9	2.01	2.20
1983	8.4	17.8	19.5	2.12	2.33
1984	6.5	14.4	15.9	2.22	2.45
1985	6.2	13.7	15.1	2.21	2.44
1986	6.0	13.1	14.5	2.18	2.42
1987	5.3	11.6	13.0	2.19	2.45

Source: Council of Economic Advisors (1988).

APPENDIX

Comprehensive Table B
Employment-to-Population Ratios for Youth, by Race and Sex,
1958 and 1987^a

Males		
Age	Ratio	
Race	1958	1987
16-19		
Black	42%	29%
White	47	50
20-24		
Black	71	62
White	76	80

Females		
Age	Ratio	
Race	1958	1987
16-19		
Black	23%	26%
White	35	49
20-24		
Black	40	49
White	43	69

Source: U.S. Bureau of Labor Statistics
 (1959 and 1988).

^aThe employment-population ratio is
 the employed as a percent of the
 noninstitutional population.

Comprehensive Table C
Distribution of Full-time Equivalent Employees, by Industry,
1948, 1977, and 1985

Industry	Percentage of Full-Time Equivalent Employees		
	1948	1977	1985
All industries ^a	100.00	100.00	100.00
Agriculture	4.31	1.90	1.60
Mining	2.06	1.02	1.00
Construction	4.74	4.58	4.80
Manufacturing	32.27	24.10	20.10
Services ^b			
Distributive Services			
Transportation	5.93	3.34	3.10
Communications	1.54	1.41	1.30
Utilities	1.10	0.92	0.90
Retail Trade	12.57	14.18	15.40
Wholesale trade	4.97	5.68	5.90
Producer Services			
FIRE ^c	3.49	5.29	6.20
Consumer Services			
Hotels, lodgings	2.71	2.00	1.30
Auto and repair	0.73	0.86	0.80
Movies, amusement, recreation	0.96	0.85	0.90
Private household	3.27	1.27	0.80
Nonprofit Services			
Health	1.72	5.19	6.20
Education	0.89	1.15	1.40
Government Services			
Government (total)	14.16	19.57	17.90
Education	2.95	6.44	5.90

Sources: Noyelle and Stanback (1982), table 2.1; Williams (1988), JCPS Working Paper, table 6.

^aIncludes industries in addition to those listed below.

^bServices not included are as follows: personal services, business services, misc. repair services, legal services, social services, and misc. professional services.

^cFinance, insurance, and real estate.

APPENDIX

Comprehensive Table D
Distribution of Workers Among Earnings Classes, by Industry,
1980

Industry	Percentage of Workers in Earnings Class				
	High Earnings		Middle Earnings	Low Earnings	
	153.0% and Higher ^a	115.0% to 152.9% ^a	77.0% to 114.9% ^a	46.0% to 76.9% ^a	45.9% and Lower ^a
All industries	19.3	13.7	19.6	19.1	28.4
Construction	23.9	15.5	21.6	18.2	20.7
Manufacturing	24.8	17.5	21.7	18.9	17.7
Distributive services	30.7	20.2	19.8	14.3	14.9
TCU ^b	34.1	22.7	18.5	12.1	12.6
Wholesale trade	24.9	16.0	22.1	18.1	18.9
Retail trade	9.4	8.0	14.0	19.4	49.2
Producer services	19.2	11.3	20.6	23.4	25.4
FIRE ^c	19.9	10.8	21.5	26.2	21.6
Corporate services	18.3	11.9	19.5	19.5	30.9
Consumer services	6.7	5.3	12.0	20.1	55.9
Nonprofit services	14.4	11.7	21.2	20.8	31.9
Health	11.4	9.7	22.4	27.7	28.8
Education	13.9	14.1	21.6	15.8	34.5
Public administration	24.6	18.2	24.7	16.0	16.5

Source: U.S. Bureau of the Census (1980b).

^aPercentage of all-industry average wage (\$13,007/year).

^bTransportation, communications, and utilities.

^cFinance, insurance, and real estate.

Comprehensive Table E
Distribution of Workers Among Earnings Classes, by Race, Sex, and Industry, 1980

<u>Industry</u> <u>Race, Sex</u>	Percentage of Workers in Earnings Class				
	High Earnings		Middle Earnings	Low Earnings	
	153.0% and Higher ^a	115.0% to 152.9% ^a	77.0% to 114.9% ^a	46.0% to 76.9% ^a	45.9% and Lower ^a
Manufacturing					
Black women	3.2	8.1	20.3	34.7	33.6
White women	3.9	8.6	24.9	33.5	29.1
Black men	16.8	19.2	24.4	20.6	19.1
White men	36.4	22.2	20.1	10.7	10.7
Construction					
Black women	3.0	6.8	19.8	28.8	41.6
White women	4.8	7.2	24.0	28.9	35.1
Black men	9.2	11.7	21.2	25.5	32.4
White men	27.1	16.6	21.5	16.5	18.3
Wholesale trade					
Black women	1.4	3.8	13.0	29.3	52.5
White women	4.6	7.5	24.5	31.8	31.6
Black men	11.8	14.8	24.6	24.3	24.4
White men	34.3	19.5	21.1	12.0	13.1
Health					
Black women	2.9	6.9	24.6	34.1	31.6
White women	3.5	8.8	23.1	31.5	33.1
Black men	10.8	10.9	26.6	26.0	25.7
White men	39.9	13.4	18.2	13.4	15.1
Retail trade					
Black women	1.5	2.6	9.8	25.0	61.8
White women	1.8	2.9	9.8	22.2	63.3
Black men	6.8	9.0	17.5	22.8	43.9
White men	18.3	13.7	18.4	15.5	34.3

(cont'd.)

APPENDIX

Comprehensive Table E (continued)

Industry Race, Sex	Percentage of Workers in Earnings Class				
	High Earnings		Middle Earnings	Low Earnings	
	153.0% and Higher ^a	115.0% to 152.9% ^a	77.0% to 114.9% ^a	46.0% to 76.9% ^a	45.9% and Lower ^a
FIRE^b					
Black women	2.3	6.1	24.3	39.5	27.8
White women	4.8	7.2	24.0	36.6	27.5
Black men	12.3	13.8	25.5	24.6	23.6
White men	43.8	16.2	17.0	10.0	12.6
Education (nonprofit)					
Black women	7.2	12.2	21.7	20.2	38.7
White women	6.0	11.8	22.7	17.8	41.6
Black men	15.3	14.6	22.2	18.5	29.6
White men	29.9	19.1	20.1	10.4	20.4

Source: Williams (1988), JCPS Working Paper, table 12.

^aPercentage of all-industry average wage (\$13,007/year).

^bFinance, insurance, and real estate.

Comprehensive Table F
Trade-Related Employment Gap Resulting From Recent U.S. Trade
Deficits (numbers in thousands)

Year	Labor Requirement Gap in Exports ^a	Labor Requirement Gap in Imports ^b	Total Trade- Related Employment Gap ^c
1982	0	0	0
1983	-1,888	-678	-1,210
1984	-2,571	525	-3,096
1985	-4,101	-1,566	-2,535
1986	-5,506	-2,320	-3,186

Source: Johnson (1988), JCPS Working Paper, table 7.

^aThe labor requirement gap due to changing exports is calculated by subtracting the labor requirements for trend exports in a given year from the labor requirements for the actual volume of exports produced that year.

^bThe labor requirement gap due to changing imports is calculated by subtracting the domestic labor requirements needed if imported goods were produced in the United States from the domestic labor requirement that would be needed to produce domestically that volume of goods based on past import trends.

^cThe total trade-related employment gap is the cumulative labor requirement gap for both exports and imports. It is determined by subtracting the labor requirement gap in imports from the labor requirement gap for exports.

APPENDIX

Comprehensive Table G
Fastest Growing Occupations, 1986-2000
moderate alternative^a
(numbers in thousands)

Occupation	Employment		Change in employment		Percent of total job growth 1986-2000
	1986	Projected 2000	1986-2000 Number	Percent	
Paralegal personnel	61	125	64	103.7	0.3
Medical assistants	132	251	119	90.4	0.6
Physical therapists	61	115	53	87.5	0.2
Physical and corrective therapy assistants and aides	36	65	29	81.6	0.1
Data processing equipment repairers	69	125	56	80.4	0.3
Home health aides	138	249	111	80.1	0.5
Podiatrists	13	23	10	77.2	0.0
Computer systems analysts, electronic data processing	331	582	251	75.6	1.2
Medical records technicians	40	70	30	75.0	0.1
Employment interviewers, private or public employment service	75	129	54	71.2	0.3
Computer programmers	479	813	335	69.9	1.6
Radiologic technologists and technicians	115	190	75	64.7	0.3
Dental hygienists	87	141	54	62.6	0.3
Dental assistants	155	244	88	57.0	0.4
Physician assistants	26	41	15	56.7	0.1
Operators and systems researchers	38	59	21	54.1	0.1
Occupational therapists	29	45	15	52.2	0.1
Peripheral electronic data processing equipment operators	46	70	24	50.8	0.1
Data entry keyers, composing	29	43	15	50.8	0.1
Optometrists	37	55	18	49.2	0.1

Source: U.S. Bureau of Labor Statistics (1987), p. 58.

^aThe Bureau of Labor Statistics makes three projections for all economic trends—low, moderate, and high. The moderate projections are used most often.

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10. THE EFFECTIVENESS OF GOVERNMENT TRAINING PROGRAMS

Margaret C. Simms
The Joint Center for Political Studies

June 1989

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10. THE EFFECTIVENESS OF GOVERNMENT TRAINING PROGRAMS

Margaret C. Simms
The Joint Center for Political Studies

The Commission on Workforce Quality and Labor Market Efficiency is charged with making recommendations for the Department of Labor and the nation to increase the excellence of the American workforce. Among the Commission's responsibilities is an examination of the roles and effectiveness of privately and publicly provided job training and education. This paper is designed to provide information on the effectiveness of government training programs for the Commission's deliberations.

INTRODUCTION

The federal government has provided support for public job training efforts for a number of years. During the 1960s most of the programs were offered under the Manpower Development and Training Act (MDTA). In the seventies, the Comprehensive Employment and Training Act (CETA) was the major vehicle and during the period since 1982, the Job Training Partnership Act (JTPA) has been the umbrella for most training activities. There have been additional programs directed toward specific groups--dislocated workers, individuals on public assistance, and youth.

Although the enabling legislation and the structures under which the programs have been offered

have changed over the years, the activities themselves have been fairly consistent. Classroom basic skills training, work experience, specific skills training, on-the-job training, and job search assistance have been a part of the federal government's training "arsenal" for most of the twenty-five year period. Therefore, an assessment of the effectiveness of training programs can stretch across different legislative initiatives. Likewise, even though the legislation has been targeted toward different groups, the characteristics of participants in the programs have been similar enough to allow comparisons to be made in terms of the effectiveness for specific groups.

This paper does not report on new evaluation research, but instead synthesizes the existing body of work for these sets of government programs. The emphasis is on how effectiveness relates to a set of objectives that the federal government might have in its pursuit of increased efficiency of the workforce. Consequently, the paper begins with a delineation of the alternative objectives that policymakers may have in developing and implementing training programs. Then several groups that are most likely to be in need of government-subsidized employment and training programs are identified. The third section of the paper reviews the literature on the effectiveness of training programs

for the groups identified and relates the success to the objectives outlined in section two. The last section of the paper presents some public policy questions.

ALTERNATIVE OBJECTIVES FOR GOVERNMENT TRAINING PROGRAMS

For most of the twentieth century increased productivity has been instrumental in the growth of the American economy. Denison (1979) and others have estimated that increased education and training have been major contributors to increased productivity and economic growth in the United States since 1930. Education and training are also associated with higher earnings and lower levels of joblessness for individual workers. Therefore, training is beneficial both to the individual and to society.

Training may be needed by workers at various points in their working lives--when the worker is preparing to enter the work force and when the worker is moving (or trying to move) from one job to another. The training that is needed may be basic skills training, such as reading and basic mathematics, or it may be technical training to perform a specific job or progress within a given occupation.

In the past, basic skills training has been seen primarily as the responsibility of the public school system. It has been expected that individuals would leave the school system with a basic grasp of reading,

writing, mathematics and other subjects. The acquisition of job specific skills has varied. For certain occupations and for entry level jobs the worker has also been expected to acquire the skills outside of the workforce, either through private training programs paid for solely out of individual and family resources--in school or apprenticeships--or through education and training programs subsidized by public funds. Once a worker has obtained a job, further training can be provided on the job or in formal training programs paid for by either the employer, the employee, or some combination of the two. The extent to which the employer is willing to pay is related to the proportion of the benefits from training that accrue to the company. If the training increases the likelihood that the employee will look for and obtain a job with a different employer, the current employer is unlikely to fund it.

The projections for the American workforce suggest that training provided to workers before they enter the workforce and over the course of their work lives will be critical to their performance in the U.S. economy and to the United States' performance in the world economy. Some of this training can be provided by the private sector, but clearly there is a role for the public

sector in terms of planning and in terms of service delivery.

For the most part, the gains from education and training accrue to either the worker or the employer and, therefore, the two should be willing to bear the cost of the training. However, there are several social objectives that would lead the government to participate in the training process. When there are a sufficient number of skilled workers in the available labor pool, expansion in employment can take place with minimal disruption to production. However, when there is a shortage of skilled workers, production is disrupted and labor costs increase as employers bid up wages to attract the limited number of workers available. While much of the shortage may disappear in time, the economy suffers from lags in production and that affects domestic Gross National Product and reduces the United States' competitiveness abroad. Therefore, society would benefit if the government facilitated the process by which workers upgraded existing skills and acquired new ones. This may be especially true if employment expansion is taking place in small firms which may not have the working capital or management cadre to provide training for their workers.

Another societal objective may be to assist individuals who could not otherwise obtain employment at

wages high enough to make them self-sufficient. Individuals who lack basic or job-specific skills have difficulty obtaining moderate or high wage jobs. The society then bears a double burden. The productive work effort is lost and the government frequently pays costs in terms of public assistance income and through crime and other anti-social behavior. During the past fifteen years, workers who did not have basic skills and training to take new job opportunities were increasingly likely to leave the labor force. This group was disproportionately composed of workers with less than a high school education. (Simms, 1986)

Adult workers can be divided into four groups--employed workers, displaced and unemployed workers, returning workers, new entrants with little or no prior work experience. Each group has different needs as far as training is concerned. The currently employed worker may not be in need of immediate training, but it is likely that he or she will need additional training over the course of the life cycle in order to perform the current job better and to prepare for other jobs. Displaced workers can be subdivided into those who have no reemployment problems, those who have good job skills but have poor job search skills and those who have fewer transferable job skills and/or have low literacy.

The problems of the low-skilled jobless also apply to those new entrants to the work force who have had little or no prior work experience. Women who are long-term welfare dependents fall into this group. Most have very little work experience and testing in several locations has verified that many have basic skills deficiencies (Nightingale and Burbridge, 1987). Youths are similar to this group in that they have no work experience. In addition, a substantial proportion of the noncollege youth population, especially those who have not completed high school, lack basic skills as well.

To summarize, the societal objectives in providing employment and training programs may include:

1. Training for mobility--both intrafirm and interfirm--in order to reduce disruptions associated with technological and structural change;
2. Increasing skill levels--current workers, new entrants, and returning workers, in order to increase productivity and raise income levels.

Identifying the appropriate public sector training programs for achieving either objective is dependent upon the evaluation of program performance for different subgroups in the population. Evaluation can take place on a number of levels. One measure of evaluation would

be how well the program is carried out-is it efficiently run, does it have appropriate outreach, is it serving the target population? The next level of evaluation would be what effect it had on the participants-are individuals placed in the program that best fits their needs, does it have positive outcomes?

Answering the last question is not simple or straightforward. It is certainly possible to compare the situation of the participant before program entry with his or her situation after program exit, but this gross impact approach would not take account of the fact that the individual's situation might have changed even if they had not been in the program. If their employment and earnings situation would have improved, then using the gross impact as a measure would overestimate the impact of the program. On the other hand, it is possible that their situation would have deteriorated in the absence of intervention. In this case, the gross measure would underestimate the impact of the program.

To arrive at a measure of the net impact of a program it is necessary to have a group with which to compare the participants, a group that has many characteristics that are similar to those of program participants except for the fact that they do not receive treatment. It is possible to get a control

group of this type by randomly assigning program applicants to treatment (admit to the program) and nontreatment (reject the applicant) groups. However, this approach is usually avoided by program operators because of the possibility that an individual would be denied access to a program that could substantially improve their lives (Heckman, et al, 1987). The alternative to random assignment has been the use of comparison groups, individuals who share many of the characteristics of the treatment group, but who have not received the treatment.¹ However, in this situation, there may be a number of differences that are not measured, such as motivation, etc. Researchers attempt to correct for these differences by the use of various modeling and correction techniques to control for sample selection bias and other complicating factors. (Barnow, 1987)

Finally, evaluating a program may also involve comparing the gains from the program-employment and earnings for the individual, increased tax revenues and reduced welfare and anti-crime costs for society-with the costs of the program-public expenditure outlays and foregone income by the participant and, possibly, displacement of other workers from jobs. Such a cost benefit analysis would involve estimating the costs and benefits over a period of time, which would include an

estimate of whether the program benefits decayed or were enhanced over time. (Barnow, 1989; Bassi, 1983)

GOVERNMENT TRAINING PROGRAMS, 1962-1989

Following World War II, the interest in employment and training programs dates from the Manpower Development and Training Act of 1962. This program was originally designed to retrain individuals who were displaced from their jobs due to automation. In the early years of the program the majority of enrollees were unemployed family men who had been employed at least three years before their job loss. However the economic expansion of the mid-1960s and the interest in the War on Poverty led federal policymakers to change the program's focus. By 1966, the majority of enrollees were from disadvantaged groups with more basic employment problems. In 1973, MDTA was replaced by CETA, which was more explicitly designed to assist disadvantaged groups (Ginsberg, 1980; Levitan and Gallo, 1988; Barnow, 1989).

While two types of activities were possible under MDTA, formal institutional training and on-the-job training, CETA included a more diverse set of activities, reflecting the greater needs of the CETA target population. Under CETA, adult work experience was included to provide those with no prior labor market experience a familiarity with the "world of work."

Classroom training was added for those who lacked basic skills and for those occupations in which the classroom was deemed the most appropriate setting for skill acquisition. So while MDTA included two types of activities, CETA provided four basic activities: classroom training, work experience and public service employment (PSE), on-the-job training (OJT) with a private employer, and direct job placement.

JTPA, which replaced CETA in 1982, provides all of the same activities that were available under CETA, except for public service employment. However, it does limit the use of work experience and stipends for participants are subject to a severe budget restriction. JTPA's primary target groups are disadvantaged youths and adults (especially welfare recipients), under Title II and displaced workers, under Title III.

In addition to these major programs, there have been other employment and training programs designed for or available to adults. These include the Work Incentive program (WIN) for welfare recipients (first adopted in 1967), the Community Work Experience Program (CWEP), "workfare", programs offered under the Trade Adjustment Assistance Act (TAA) and various local demonstration programs sponsored by both governmental and nongovernmental units. Youth have been included in the major adult programs and have had summer employment

and Job Corp programs available under both CETA and JTPA. In addition, several youth initiatives, including the Youth Employment Demonstration Program Act (YEDPA), have been tried in the past 25 years.

The framework for reviewing the programs is as follows: within each major program, the major target groups and their needs are identified. Then the program activities they participated in are summarized and the effectiveness is measured. Several factors are considered:

1. Did the program serve those it was designed to help and what percentage of the eligibles were served?
2. What types of activities did the participants have access to?
3. What were the outcomes?

Training Programs Under CETA

As indicated earlier, CETA was designed to be a program that targeted disadvantaged individuals. Over the nine years that CETA was in operation, the program standards and eligibility criteria were revised in order to restrict the program to individuals who were thought to be most in need of the type of assistance offered by CETA (Ginsberg, 1980; Bassi, 1983). A review of the characteristics of program participants indicates that, on many measures, participants met the "disadvantaged"

standards set as one of the program goals. However, there are also some indications that during the early program years, CETA did not serve women at their levels of eligibility and that women in CETA were underrepresented in nontraditional programs and in the higher wage programs such as OJT (Berryman, 1981; Simms, 1985). Some analysts have also asserted that the program took the best of the group eligible to participate (this is called "creaming") (Levitan and Gallo, 1988).

In order to facilitate the evaluation of CETA programs, the Department of Labor established a database which consisted of a sample of program participants. A comparison group was developed from the Current Population Survey to go with this Continuous Longitudinal Manpower Survey (CLMS). The original evaluation research on CETA was completed by Westat, Inc., which had developed a set of matching techniques for the comparison group (Bryant and Rupp, 1987). Later evaluations by other researchers relied heavily on the Westat comparison group, but varied in a number of other respects, such as the particular groups of CETA participants included in the evaluation, the matching procedures utilized, the postprogram period used for observing program impacts, and the statistical equations used for estimating the program effects (Barnow, 1987).

Estimating Benefits. As a result of the differences in approach, the estimates for the net impact of CETA vary widely. (See the appendix for a summary of the different techniques used and the impact estimates from major CETA evaluations.) Reconciling these very different estimates has been difficult to do. And determining which estimates (or magnitude of estimates) are closest to the true gain to participants has been practically impossible. Some researchers (LaLonde and Maynard, 1987) have asserted that it is not possible to find estimation techniques that properly correct for all the differences between the participants and the control groups in the case of nonexperimental data--those that use comparison groups and not random assignment, but others have produced some evidence to the contrary (Heckman, et. al., 1987).

Even though the true estimates for program gains have not been determined with precision, some patterns are consistent across research studies. The earnings gains from CETA were judged to be relatively modest, between \$200 and \$600 for program participation, although the gains from some CETA activities were estimated to be somewhat higher. Most evaluations found the program to be more effective for women than for men. In fact, few studies found consistent positive and significant gains for minority men. Public service

employment and OJT were the programs most likely to show any significant positive effects for men (Bassi, 1983; Barnow, 1987). For the most part, the increased earnings appeared to be in the form of greater employment (more hours worked) and not in the form of higher wage rates. This would certainly help to explain the gender differences since women are more likely to be in the position of increasing the number of hours worked, while disadvantaged males may be more likely to be working before program participation but at chronically low wages (Burbridge, 1986).

Costs and Cost Effectiveness. Program activities in the employment and training program vary widely in terms of costs. For low intensity programs such as job search assistance, cost estimates are between \$50 and \$250. More intensive programs have costs ranging from \$1500 (for classroom training) to \$5,000 to \$10,000 per participant for work experience, OJT, and PSE activities (Bassi, 1985; The Urban Institute, 1986).

The wide fluctuation in estimated net impacts makes it difficult to conduct cost-benefit analyses. Even if the direction of impact is judged to be fairly uniform, the inability to obtain a precise measure limits the ability to construct a cost-benefit ratio. Based on the findings for women, however, it could be argued that the more effective programs are the more costly ones. In

order to judge this program cost effective, it may be necessary to prove that the benefits do not decay rapidly and therefore the present value of the benefit stream does exceed the costs for society. Bassi (1983) did estimate cost-effectiveness for the four major CETA programs for economically disadvantaged enrollees (who had higher gains than the nondisadvantaged) and found only classroom training and on-the-job training to be cost-effective, with benefit cost ratios of 1.05 and 1.11 when benefits do not decay for five years and 1.69 and 1.80 if the benefit stream lasts for ten years.

Training Programs Under JTPA

Criticism of the operation of CETA, especially the PSE component, led to the restructuring of the employment and training delivery system under the Job Training Partnership Act. In addition to reducing the amount of money available for job training, the new law decentralized the program, provided for more state oversight and introduced more accountability. States were given more flexibility in the administration of the program and Service Delivery Areas (SDAs) were required to establish performance standards to hold service providers accountable for outcomes from the use of funds. While the regulations allow SDAs to set their own performance standards, within given parameters, the majority started the program with employment and

earnings standards (Nightingale, 1985). Some of the early reviews of the implementation of JTPA asserted that these performance standards led to program structures that emphasized quick treatment and screened out the hard to serve. This appeared to be a particular problem for youth who were high school dropouts. Some program evaluators noted that youth were being asked to take literacy tests and were rejected if they did not read at a ninth grade level (Orfield and Slessarev, 1986; Levitan and Gallo, 1988). This tendency was aggravated by a reduction in funds that limited the percent of the eligible population that could be served. Consequently, it was argued, the program was not serving the mandated populations--youth and disadvantaged adults--to the extent that it should.

Is JTPA Serving the Target Population? An analysis of JTPA participation by the National Commission on Employment Policy (Sandell and Rupp, 1988), disputed the argument that JTPA was not serving the mandated population by comparing data on JTPA participants in Program Years 1984 and 1985 (obtained from the Job Training Quarterly Survey) with estimates of the eligible population constructed from the March 1986 Current Population Survey. They defined the true target population as those who met the JTPA eligibility standards and who were unemployed. The argument they

developed was that a true indication of willingness and availability to participate in a JTPA program was to be unemployed (not employed and actively looking for work). By this definition, they concluded that JTPA was serving about 13% of the eligibles who were likely to volunteer for program participation. This is a rate substantially higher than other estimates, since it eliminates individuals who are either employed or not in the labor force (about 88% of the eligible population at the time) from consideration. Using their definition of the "active eligible", the researchers found that welfare recipients and minorities were served at rates comparable to their representation in the eligible population and youth were overserved. The only population they identified as being underserved was adult high school dropouts. While they were 38% of the unemployed eligibles, they were only 26% of the JTPA participants.

There are some drawbacks to the Sandell and Rupp approach to defining the group of eligibles that are likely to enroll in JTPA. For youth the unemployment measure ("are you actively looking for work") is much more unreliable as an indication of interest in and willingness to participate in an employment and training program. The labor market status of youth is much more fluid, with movement in and out of the labor force being

quite volatile. Moreover, since the goals of employment and training programs for youth are often broader than immediate postprogram employment, the concept that may work for adult males, will probably be less useful for youth. It may also be somewhat problematic for women on welfare as well. The income likely to be generated by employment without skill enhancement would leave many welfare recipients financially worse off than they are on public assistance and the lack of affordable child care could also reduce their likelihood of actively seeking work. That may not mean that they are unwilling to participate in a training program that would increase their wage earning capacity, providing child care were available.

Evaluations of Title II Programs

When JTPA was initiated, the evaluation plan was to continue with the type of database that was available under CETA. However, a review of the CETA evaluations and other evidence led a Labor Department panel to recommend the abandonment of the Job Training Longitudinal Survey in favor of a random assignment experiment and research on structural modeling that would resolve the problem of selection bias. (Stromsdorfer, 1987) That evaluation is currently underway. In the meantime, the data on the impact of JTPA is quite limited. The most recent national study

of JTPA is the Department of Labor's Inspector General audit (DOL, 1988) In addition, several states have undertaken evaluations of their own programs. Two of these studies are reviewed here.

The Inspector General (IG) report is not a net impact analysis. Instead, it is a review of the characteristics of the participants and an analysis of the postprogram outcomes. The audit is based on 58 sites selected for review. No comparison or control group is included so that it is hard to say definitively how these outcomes compare with what would have happened in the absence of program participation.

The report's review of program participation led the Inspector General's Office to assert that the program has not been targeting the hard-to-serve population. An analysis of the age, educational attainment, work history, and receipt of public assistance of participants was conducted. The IG found that 60% of the participants had a high school education or better and the typical participant had prior work experience. One-half of the adults received nonoccupational training, the majority getting job search assistance. Of the one-half receiving occupational training, the group was almost evenly split between OJT and classroom training. The audit was fairly critical of the programs offered, asserting that

60% of the OJT participants would have been hired by the employer in the absence of a program and pointing to the fairly short periods of program involvement. Job search participants were only in the program for one month, remedial education participants for three months and occupational training enrollees for an average of six months.

While placement rates were fairly high, with 70% of program terminees entering unsubsidized employment, only 58% remained on the job in which they were placed for more than 4 months. Sixteen percent were in second jobs and 26% were unemployed. The vast majority (70%) were earning less than \$5 per hour and only the participants who were under the age of 35 showed an increase in wages over pre-program earnings. Among youth, 50% of those not entering unsubsidized employment had other positive outcomes such as enrollment in other training (45%), attainment of other employment competencies (34%), school completion (16%), and enrollment in apprenticeship programs or the military (5%).

Several states have undertaken evaluations of their JTPA programs, using guidelines similar to those issued by the National Commission on Employment Policy and reports from Indiana and Nevada are discussed here.

The state of Indiana conducted a net impact analysis evaluation of its JTPA program for individuals

who were in the program between October 1, 1983 and March 31, 1984 (State of Indiana, 1986). The comparison group used for the analysis was Employment Service applicants. The two groups showed similar declines in earnings prior to application to the respective activities. However, there were differences in the demographic characteristics of the two groups. The Employment Service applicants were more likely to be white, more likely to be female; they were slightly older and less likely to be on welfare.

Unlike the CETA evaluations, the Indiana study found positive outcomes for all participant groups examined. For men who participated in 1983-84, the net income gain in 1985 (post-program year) was \$1400 (in constant 1983 dollars). White women had net income gains of \$1000 in the first postprogram year. No gains were calculated for minority women because of concerns about the dissimilarities between the participant group and the comparison group for minority women. Welfare recipients had increases in net income of \$1200, an amount equivalent to their preprogram annual earnings. The welfare grant reductions were \$105 per month, an amount that peaked approximately 12 months after program termination. This peak occurred because many welfare recipients were able to move off welfare within two years without program intervention. The analysts

attributed the large net gains for welfare participants to the fact that the comparison group is heavily weighted by WIN mandatory individuals who are required to register for work, but who are probably not extremely motivated.

The findings of positive impacts for males is somewhat surprising, given the fairly consistent findings of no gain under CETA. Moreover, while there were no significant differences by race or ethnicity, measured impacts were highest for Hispanic males, next highest for black males, and lowest for white males. Since minority males were least likely to have gains under previous programs, these findings raise several questions. The study cites the absence of stipends as a possible explanation, arguing that males who are enrolled in JTPA really have to be motivated while those who were in CETA programs were motivated primarily by the stipend. However, the choice of a comparison group may also have affected the findings. The black male JTPA participants were more likely to be high school graduates and were more likely to be veterans. Both factors should have made them more attractive to employers. On the other hand, the participants had a very large preprogram dip in earnings that began four years before program enrollment, while the ES applicants had dips two years prior to the enrollment period, which

would suggest that intervention was necessary for the program participants to recover income. Given that Indiana is a state that underwent severe employment problems as a result of both cyclical and industrial change, it might be expected that males who may have lost jobs in manufacturing industries would need a strong intervention to move them back onto a high and sustained earnings path.

The Nevada evaluation also used Employment Service applicants as a comparison group, and they found similar earnings gains for males (Hanna and Turney, 1988). This study covered JTPA participants, aged 22 to 65, enrolled in Nevada programs between July 1, 1985 and June 30, 1986. The researchers estimated the net income gain based on three quarters of postprogram wage data. The comparison group included only those ES applicants who were economically disadvantaged, but it was difficult to find a match group. Even after adjustment, the female JTPA participants appeared to be more disadvantaged than the comparison group. The annualized estimates of net gains for males ranged from \$1436 to \$1726, depending on the program. It appears that OJT may have been more successful than classroom training. Women had gains between \$632 and \$926, with most of the gains coming from increases in time employed and not increases in wages. Gains for men did show a wage effect.

Displaced workers (Title III). The General Accounting Office (GAO) recently conducted a review of the services provided to displaced workers under JTPA (GAO, 1987). They estimated that approximately 7% of the eligible displaced workers were served by Title III programs between the beginning of JTPA and June of 1986. The vast majority of those receiving services (84%) were provided with job counseling and two-thirds were given job search assistance. Only about one-quarter had classroom training and 16% were placed in OJT slots. A mere 6% received remedial educational services. Title III programs had a high placement rate, with 69% of program trainees having jobs at the end of the enrollment period. The average wage rate of \$6.61 was lower than previous wages and below the \$8.52 average for private sector workers, but above the rates for trainees from other employment and training programs.

The relative success of the JTPA program must be judged against its shortcomings. Although the Department of Labor had not set performance standards for displaced workers programs, about 80% of the states did, and most of these were placement standards. These standards may have been a factor in the selection criteria used by service providers, causing them to screen out harder-to-serve applicants. The participants in Title III programs were predominantly white males

between the ages of 22 and 44, with at least 12 years of education. When compared with the profile of the typical displaced worker during that time period, it appears that older workers and those with less education were less likely to be served by JTPA than would be expected, given their representation in the population of displaced workers. GAO found this was especially true if the service provider screened entrance into the program. These findings suggest that those individuals who are most in need of assistance have been the ones least likely to receive it under JTPA programs for displaced workers.

SPECIAL PROGRAMS FOR YOUTH

Structuring and evaluating programs for youth has been a more difficult task than for adults. In many cases, the purpose of an employment and training program goes beyond immediate postprogram employment. At the upper end, the expectation is that program intervention will place the youth participants on a different life track leading to further education and training, increasing long-run earnings curves, reducing criminal and other anti-social behavior, and decreasing the incidence of early parenting and long-run welfare dependency. Clearly, for most youths, a work experience program is too limited to have such a large impact on an individual's life. Increasingly, policymakers and

policy analysts are pointing to the one program that has been widely judged a success for youth, the Job Corps, as a model for youth programs. The Job Corps was designed as a massive intervention into the lives of high school dropouts. The individuals who enrolled in the Job Corps were taken to residential sites away from what was considered to be a negative urban environment and offered a fairly lengthy curriculum that included both basic skills and occupation-specific training. In addition, participants were provided with counseling and health services and a broad range of other support services. An evaluation of the Job Corps by Mathematica Policy Research, Inc. (Mallar, et. al., 1980) indicated that the program not only increased employment and income,² but resulted in youths seeking more education and training, being more likely to enroll in the military, and being less likely to engage in criminal activity or be dependent on welfare.

These findings, in combination with some concerns about the ability of JTPA, as originally structured, to assist the youths most in need of help, led to the development of several programs that combine JTPA activities with additional services. Two programs that are currently in place are the Summer Training and Education Program (STEP) and JOBSTART.

STEP is a program that was developed as a demonstration by Public/Private Ventures of Philadelphia. (Sipe, et al, 1988) The program was introduced as a demonstration at five sites (Boston, Fresno, San Diego, Seattle, and Portland) in 1985. Participants in the program, which combines a government-subsidized summer job with remedial reading and mathematics and life skills instruction, are 14 and 15 year olds who are eligible for the Summer Youth Employment and Training Program (SYETP) under JTPA Title IIb. Youths who are targeted for the program are low achievers who are high dropout risks but who are still enrolled in school.

The STEP program consists of two summers of work experience and classroom activities and support services during the intervening school year. The program evaluation used SYETP enrollees as a comparison group and the gains that were measured included 1) net math and reading gains for the first summer; 2) retention in school the following year; 3) gains in math and reading during the second summer; 4) changes in sexual and contraceptive behavior. In the four years of the demonstration, approximately 4500 individuals have been followed and postprogram evaluation will continue until 1992.

The rationale for the program was based on findings that jobs alone (as was tried under YEDPA) were not sufficient to prevent at risk students from dropping out of school. Instead, stronger interventions that improved basic skills and changed behavior were needed (Berlin and Sum, 1988). In-program and postprogram data indicate that the program does have modest impacts on basic skills. STEP participants had significant net gains in reading and math during the first summer. While the control group lost skills over the course of the summer, program participants in 1987 gained and the difference between the two groups was 0.5 years for reading and 0.6 years for math. The impact of the life skills course was less apparent the first summer. While their knowledge of contraception increased, not all program cohorts had increased the use of contraception and few changes in sexual behavior were reported. During the school year, modest impacts were seen for individuals who had strong support services. Second summer gains were also recorded for reading and math, but only two cities followed the control group, so the net impacts are not clear.

JOBSTART is another program that combines regular JTPA programs with additional activities, including both education and skills training. (Auspos, 1987) The program, which is being evaluated by the Manpower

Demonstration Research Corporation, began in August 1985 and includes 16 sites, 13 demonstration sites and three nonresidential Job Corps programs. Participants in this program are high school dropouts who would not normally be recruited for JTPA since they were reading below the 8th grade level. The emphasis is on longer term, more intensive training than the JTPA system usually provides.

Individuals were enrolled in JOBSTART on a random assignment basis so the control group would be comparable on most dimensions and sample selection bias would be eliminated. Enrollees received basic education and occupational training over an average of six months, either sequentially or concurrently (Auspos, et al, 1989). In addition support services and life skills courses were available at some sites. Individuals in sequential programs received more basic education, but significantly less occupational training. On average individuals participated in the program activities for over 400 hours. Young mothers were the only group that had significantly lower hours of participation. Those who did receive training were most likely to be in moderate skill level programs. The interim followup findings indicate that all subgroups had positive outcomes, with the treatment group being more likely to receive GED certificates, but less likely to be employed

than the control group. However, since most were in JOBSTART for much of the time between enrollment and the followup interview, this is not unexpected.

POLICY ISSUES

This brief summary of recent experiences with government-subsidized employment and training programs reveals that many of the programs have had positive effects, but the effects have been quite modest. Evidence also exists to indicate that the more effective programs for youths and for adults with serious labor market problems are the more expensive ones.³ In general the programs have served only a small proportion of the eligible population. Under JTPA, estimates of the percent of the eligible population served has ranged from 5 to 13%. Moreover, under JTPA, some of the most disadvantaged--older workers, high school dropouts, etc--have not been served at rates proportionate to their representation in the eligible population. While some findings indicate that JTPA has had positive outcomes for those who need low intensity services, the regular JTPA programs have not done very well at achieving the objective of reaching the hardest to serve. Evidence from demonstration projects such as JOBSTART indicate that the system can, in fact, be adapted to meet this goal.⁴

These findings suggest several important policy questions:

1. Given that past programs have been able to serve only a small proportion of the population, should future programs:
 - a) continue to have the same mix of activities with more funds and more participants?
 - b) change the mix of programs to serve fewer participants more intensively or more participants less intensively.
2. Should more attention be paid to the assignment of individuals to specific program activities, to ensure that individuals get the most appropriate service and does doing this infringe on the participants' choices in an unreasonable way?

Answering these questions within the current budgetary climate will not be easy.

APPENDIX

Summary of Selected Evaluations of CETA

Table 1 Source: Burt S. Barnow, 1987
 Summary of Estimated CETA Impacts on Earnings

	Westat (1981) FY 76	Westat (1984) FY 76	Westat (1984) FY 77	Bassi et al. (1983)	Bassi et al. (1984) Nonwelfare Disad- vantaged Adults	Bassi et al. (1984) Welfare	Bassi et al. (1984) Youth	Bloom & McLaughlin (1982)	DJW (1984) Adults	DJW (1984) Youth	Geraci (1984)
OVERALL	+	0	++	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
White women	++	+	++	++	++	++	0	n.s.	n.s.	n.s.	n.s.
White men	+	0	++	n.s.	0	++	--	n.s.	n.s.	n.s.	n.s.
Minority women	++	+	++	++	++	++	0	n.s.	n.s.	n.s.	n.s.
Minority men	+	0	++	0	+	0	--	n.s.	n.s.	n.s.	n.s.
Women	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	0	0	n.s.
Men	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	--	--	n.s.
PSE	+	0	++	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
White women	++	n.s.	n.s.	++	+++	+++	++	n.s.	n.s.	n.s.	n.s.
White men	0	n.s.	n.s.	n.s.	+	+++	0	n.s.	n.s.	n.s.	n.s.
Minority women	++	n.s.	n.s.	0	0	0	--	n.s.	n.s.	n.s.	n.s.
Minority men	0	n.s.	n.s.	0	0	0	--	n.s.	n.s.	n.s.	n.s.
Women	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	+	0	++
Men	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	--	--	--
WE	0	-	+	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
White women	0	n.s.	n.s.	--	++	++	--	+++	n.s.	n.s.	n.s.
White men	-	n.s.	n.s.	n.s.	+	+	--	--	n.s.	n.s.	n.s.
Minority women	+	n.s.	n.s.	++	+	++	--	++	n.s.	n.s.	n.s.
Minority men	0	n.s.	n.s.	--	+	0	--	+	n.s.	n.s.	n.s.
Women	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	+++	--	0
Men	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	0	--	--	--
CT	+	+	++	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
White women	++	n.s.	n.s.	0	+	+	--	+++	n.s.	n.s.	n.s.
White men	++	n.s.	n.s.	n.s.	--	--	--	+	n.s.	n.s.	n.s.
Minority women	++	n.s.	n.s.	++	+	+	--	+++	n.s.	n.s.	n.s.
Minority men	+++	n.s.	n.s.	++	0	--	--	+	n.s.	n.s.	n.s.
Women	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	+++	0	0	+++
Men	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	+	--	--	+
OJT	++	++	+++	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
White women	++	n.s.	n.s.	+	++	+	0	+++	n.s.	n.s.	n.s.
White men	++	n.s.	n.s.	n.s.	++	+++	+	--	n.s.	n.s.	n.s.
Minority women	+++	n.s.	n.s.	+++	+	++	++	++	n.s.	n.s.	n.s.
Minority men	+++	n.s.	n.s.	+++	++	++	0	+++	n.s.	n.s.	n.s.
Women	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	++	0	+	++
Men	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	+	--	--	++
MUL	+	++	+++	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
White women	+	n.s.	n.s.	++	++	+++	++	n.s.	n.s.	n.s.	n.s.
White men	0	n.s.	n.s.	n.s.	++	+++	--	n.s.	n.s.	n.s.	n.s.
Minority women	+++	n.s.	n.s.	+++	++	++	--	n.s.	n.s.	n.s.	n.s.
Minority men	--	n.s.	n.s.	---	0	+++	--	n.s.	n.s.	n.s.	n.s.
Women	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Men	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

Coding scheme: --- Less than -\$1,000 +++ Greater than \$1,000 0 Between -\$199 and \$199

-- Between -\$300 and -\$999 ++ Between \$300 and \$999

- Between -\$200 and -\$499 + Between \$200 and \$499

PSE = Public Service Employment, WE = Work Experience, CT = Classroom Training, OJT = On-the-Job Training, MUL = Multiple Activities.

See Table 2 for description of the studies and Table 3 for dollar amounts. DJW is Dickinson, John, and West (1984).

Table 2
Summary of Studies Reviewed

	Westat (1981)	Westat (1984)	Bassi (1983)	Bassi et al. (1984)	Bloom & McLaughlin (1982)	Dickinson, Johnson, and West (1984)	Geraci (1984)
Program entry	7/75-6/76	7/75-6/76 (A) 7/76-6/77 (B)	7/75-6/76	7/76-9/77	1/75-6/76	1/76-12/76	7/75-7/76
Postprogram period	1977	1977 (A) 1978 (B)	1977, 1978	1978, 1979	1976, 1977, 1978	1978	1977-1979 average
CETA participants included in analysis	Ages 16-60 Enrolled in CT, PSE, OJT, WE or MUL Over 7 days in program Prior year earnings less than \$20,000 Prior year family income less than \$30,000 Terminated from program by 12/76 Valid SSA match on 3 of 5 criteria	Same as Westat (1981) except family income excludes participant's earnings	Same as Westat	Welfare recipients and others economically disadvantaged ages 18-65, youth ages 13-22 No other restrictions	Ages 25 to 60 Enrolled in CT, OJT, or WE only Over 7 days in program	Ages 16-64 Not in summer youth program Complete or close SSA match Not in program in 1978	Same as Westat (1984) except over age 22
CPS individuals eligible for comparison group	Same age, earnings, income and SSA match In labor force 3/76 or worked in 1975	Same as Westat (1981)	Same as Westat (1981)	For ages 11-65, on welfare or economically disadvantaged For youths 13-22, used Westat (B)	For ages 25 to 60 Earned less than SSA maximum from 1970-75 1975 family income less than \$30,000	Adults in labor force in 3/76 Youth in labor force in 3/76 or who worked in 1975	Same as Westat (A)
Matching procedure	Cell matching for 1972-74 earnings groups • For low earners: Exact match on sex, race, and age. Collapsing permitted on education, family income, labor force experience, family head status, 1975 SSA earnings, change in SSA earnings 74-75, change in SSA earnings 73-74, poverty status, private sector employment. • For intermediate earners: Exact match on sex, race, 1975 SSA earnings, change in SSA	Cell matching for each activity. Exact match on sex, 1975 SSA earnings (for A) or 1976 SSA earnings (for B), change in SSA earnings for two previous years (1973-74 and 74-75 or 74-75 and 75-76), and race. Collapsing permitted for match on age, education, family income, prior year labor force experience, family head status, and poverty status.	Same as Westat (1981)	All economically disadvantaged and welfare recipients 18-65 included in adult study For youth 13-22, used Westat (1981) youth match groups	All CPS individuals who met the above criteria were included	Weighted nearest-neighbor match based on SSA earnings in 1970-75, square of 1975 SSA earnings, black, Hispanic, other minority, age, age ² , age ³ , family head status, 7 occupational categories, public sector employment, poverty status, AFDC recipient, UI recipient, percent of time worked in 1975, percent of time worked in 1974, CPS re-	Same as Westat (A)

Table 2 (Continued)

	Westat (1981)	Westat (1984)	Bassi (1983)	Bassi et al. (1984)	Bloom & McLaughlin (1982)	Dickinson, Johnson, and West (1984)	Geraci (1984)
Regression procedure	earnings 74-75; collapsing permitted on other variables. • For high earners: Some as intermediate earners except family income given less priority in cell collapsing. Weighted least squares Separate regressions for each race-sex-earnings group	Weighted least squares Separate regressions for each activity	First differences OLS Separate regressions by sex-race status	First differences OLS Separate regressions by race-sex-welfare status	Fixed effects OLS Model with individual time trends and correction for earnings drop for participants	ported earnings for those at SSA maximum, 15 interaction variables Match groups formed overall and by activity. Ordinary least squares Separate regressions by age-sex-activity status	Two-step procedure: (1) Probit for positive earnings (2) Weighted least squares for positive earners separate analyses by sex
regressors	Family head status, education, prior work in private sector, 1973 SSA earnings, 1974 SSA earnings, proxy for cyclical unemployment, family income, prior labor force status, age, educational disadvantage and status (age 16-18 only), veteran status (males only), presence of children under 6 (females only), presence of children 6-18 (females only)	Same as Westat (1981)	Age, age ²	Age, Age ²	Age, Age ² , education, family size, minority status, head of household status, current marital status, past marital status, presence of children under 4, presence of children 4-6, presence of children 7-18	Same regressors as used for matching	Age, Age ² , education, marital status, head of household status, economically disadvantage status, minority status, presence of children under 6 (females only), presence of children 6-17 (females only), interaction terms for experience and education.

In its 1984 work, Westat weighted the CLMS cases by the inverse of the probability of being sampled. The rationale here is that the impact might vary by the characteristics of the participants so that the estimated impact is actually an average impact. If this is the case, then weighting the observations is one method of correcting for this specification error. Note that both types of weighting used by Westat are intended to correct for implicit

specification errors, whereas the more common weighting scheme used to correct for heteroscedasticity is used to improve efficiency.

The explanatory variables in Westat's regressions were similar to those used in the matching procedures with several notable exceptions. First, dummy variables were added for participation in CETA activities. Second, SSA earnings were entered as continuous variables rather than as a series of

Table 3
Impact Estimates

	Westat (1981) FY 76	Westat (1984) FY 76	Westat (1984) FY 77	Bassi (1983)	Bassi et al. (1984) Nonwelfare Disadvantaged Adults
Overall	300*	129*	596*	—	—
White women	500*	408*	534*	740*-778*	705*-762*
White men	200	(4)	500*	—	17-136
Minority women	600*	336*	762*	426*-671*	779*-810*
Minority men	200	(104)	658*	117-211	116-369
Women	—	—	—	—	—
Men	—	—	—	—	—
PSE	250*	117	654*	—	—
White women	950*	—	—	614*-701*	1,049*-1,229*
White men	100	—	—	—	302-303
Minority women	650*	—	—	259-815*	1,605*-1,623*
Minority men	(50)	—	—	(213)-(23)	8-161
Women	—	—	—	—	—
Men	—	—	—	—	—
WE	(150)	(234)	490	—	—
White women	50	—	—	(293)-(120)	760*-862*
White men	(450)	—	—	—	56-438
Minority women	300	—	—	872*-1,023*	361-400
Minority men	0	—	—	(391)-(310)	370-389
Women	—	—	—	—	—
Men	—	—	—	—	—
CT	350*	267*	740*	—	—
White women	550*	—	—	63-205	295-354*
White men	400	—	—	—	(543)*-(457)
Minority women	500*	—	—	426-633*	245-301
Minority men	200	—	—	582-773	102-185
Women	—	—	—	—	—
Men	—	—	—	—	—
OJT	850*	531*	1,091*	—	—
White women	550*	—	—	80-382	701*-724*
White men	750*	—	—	—	616*-756*
Minority women	1,200*	—	—	1,368*-1,549*	223-244
Minority men	1,150*	—	—	2,053*-2,057*	772*-812*
Women	—	—	—	—	—
Men	—	—	—	—	—

Note: All estimates are in postprogram year dollars except for Bloom & McLaughlin estimates, which are in 1980 dollars. DJW is Dickinson, Johnson, and West (1984). Numbers in parentheses are negative impact estimates. An * indicates that the estimate is statistically significant

Bassi et al. (1984) Welfare	Bassi et al. (1984) Youth	Bloom & McLaughlin (1982)	DJW (1984) Adults	DJW (1984) Youth	Gera (1984)
—	—	—	—	—	—
840*-949*	(68)-(23)	—	—	—	—
578-691*	(576)*-(515)*	—	—	—	—
659*-703*	(201)-(77)	—	—	—	—
(273)-69	(758)*-(681)*	800*-1,300*	11	185	—
—	—	200	(690)*	(591)*	—
—	—	—	—	—	—
—	—	—	—	—	—
1,558*-1,563*	882*-990*	—	—	—	—
1,218*-1,307*	(180)-(81)	—	—	—	—
1,648*-1,673*	1,125*-1,196*	—	—	—	—
(32)-274	(396)-(314)	—	—	—	—
—	—	—	464*	52	1,121*
—	—	—	(836)*	(403)	(217)
—	—	—	—	—	—
505-854*	(333)-(315)	1,400*	—	—	—
202-724	(1,021)*-(872)*	(300)	—	—	—
825*-874*	(320)-(185)	900*	—	—	—
(299)-249	(983)*-(912)*	300	—	—	—
—	—	800*-1,300*	(522)*	(21)	267
—	—	(100)	(526)*	(1,108)*	(588)*
—	—	—	—	—	—
315-451*	(332)*-(288)*	1,300*	—	—	—
(440)-(120)	(962)*-(818)*	300	—	—	—
206-369*	(342)-(247)	1,100*	—	—	—
(571)-(99)	(872)*-(845)*	300	—	—	—
—	—	800*-1,400*	0	117	1,201*
—	—	300	(343)	(565)*	372
—	—	—	—	—	—
190-318	(127)-12	1,200*	—	—	—
995-1,211*	452-463	(200)	—	—	—
564-587	861*-877*	800*	—	—	—
454-750	(260)-(58)	1,500*	—	—	—
—	—	700*-1,100**	35	996*	892*
—	—	300	(363)	(348)	612*

at the .05 level. PSE = Public Service Employment, WE = Work Experience, CT = Classroom Training, OJT = On-the-Job Training, MUL = Multiple Activities

Table 3 (Continued)

	Westat (1981) FY 76	Westat (1984) FY 76	Westat (1984) FY 77	Bassi (1983)	Bassi et al. (1984) Nonwelfare Disadvantaged Adults
MUL	350	530	1,077*	—	—
White women	450	—	—	433-602	754*-764*
White men	150	—	—	—	551-615
Minority women	1,400*	—	—	1,195*-1,599*	683*-747*
Minority men	(300)	—	—	(2,171)*-(1,654)*	(43)-137
Women	—	—	—	—	—
Men	—	—	—	—	—

sequence of this procedure is that very few explanatory variables remain. Because the Bassi and Westat (1981) studies used the same data, the first and third columns of Table 3 can be compared to see the effect that using a first difference estimator has relative to including a large number of explanatory numbers. The comparison is complicated somewhat because Bassi uses two different base years for computing her first differences, and she performs no analyses for white men because she found the Westat comparison groups to be unacceptable. Bassi's findings were generally consistent with those of Westat, but in some specific race-sex-activity combinations there were significant differences. For example, Bassi's overall estimates for minority men and women bracketed the Westat findings, and her estimates for estimated impact for white women was about \$750 compared to Westat's estimate of \$500. However, Bassi estimated that participating in multiple activities lowered earnings for minority men by about \$1,900, while Westat estimated the earnings loss to be only \$300.

DJW noted that Westat did not include earnings for the year immediately prior to program participation in their regressions, and when they added this variable to the Westat formulation the impact estimate decreased from \$265 to \$173. Earnings in the year immediately prior to participation in a training program tend to decline from the trend in the years preceding it.¹⁸ The treatment of the "preprogram dip" in the analysis can play a substantial role

18. See Westat (1981 and 1984) for diagrams illustrating the presence and magnitude of the decline in earnings in the period prior to program entry. A preprogram dip in earnings was also observed in evaluations of Manpower Development and Training Act (MDTA) programs; see Ashenfelter (1978).

Bassi et al. (1984) Welfare	Bassi et al. (1984) Youth	Bloom & McLaughlin (1982)	DJW (1984) Adults	DJW (1984) Youth	Geraci (1984)
—	—	—	—	—	—
2,459*-2,700*	493-636*	—	—	—	—
1,208-1,553*	(657)-(484)	—	—	—	—
928*-978*	(387)-(315)	—	—	—	—
995-1,147	(472)-(239)	—	—	—	—
—	—	—	—	—	—

in the estimates of program impact. If the dip is a transitory phenomenon, then it could influence selection into the program without having a long-term impact on earnings. If this view is correct, then Westat's use of earnings in the period immediately prior to program entry as a variable for matching but excluding it from the postprogram earnings functions can be justified. On the other hand, if the dip indicates a permanent decline in human capital (or the value placed by society on the human capital), then earnings in the period immediately prior to program participation is likely to be a key variable in explaining later earnings.

Which interpretation of the preprogram earnings dip is correct? Unfortunately, both interpretations are likely to be correct in certain instances, and when an individual with such a decline in earnings is identified it is difficult to say a priori whether the decline is transitory or permanent. Note that the CETA programs were likely to attract individuals with different types of declines in different activities. The PSE program served a countercyclical function, so it was likely to attract individuals with a temporary decline in earnings who would use the PSE job as a means of tiding them over until the economy improved. Training programs, on the other hand, were more likely to attract individuals with a permanent decline in earnings. In the evaluation of the Downriver program, which served laid-off auto workers, a large permanent decline in earnings was observed; see Kulik, Smith, and Stromsdorfer (1984).

In the CETA evaluations considered here, the researcher must determine whether the decline that precipitated or was associated with program entry was transitory or permanent (or, more precisely, how it was perceived by the participant), and he or she must also determine the nature of such declines in

NOTES

1. One problem that frequently arises with the use of comparison groups is that members of the comparison group have, in fact, received the treatment but they are not identified as such.
2. The only group that did not have significant increases in income was women with children.
3. These findings are supported by findings from demonstration projects such as the National Supported Work Demonstration and work-welfare demonstrations conducted by the Manpower Demonstration Research Corporation.
4. Several program models in the work/welfare system show that JTPA is also playing a large role in delivering services to welfare recipients. See Burbridge and Nightingale, 1989.

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Black Youth Face an Uncertain Jobs Future

Growing Racial Disparities in Employment Signal Need for Policy Changes

by Dr. Margaret C. Simms

While the U.S. economy continued to expand during 1987, gains made by black youth did not keep pace with the progress of their white counterparts. Data from the U.S. Bureau of Labor Statistics (BLS), illustrating slow expansion in black youth employment and college attendance, are disturbing indicators that young blacks may not fare well in the future. The gap in employment between blacks and whites may widen over the next decade as the changing economy produces a larger proportion of jobs requiring highly trained workers.

Economic Growth in 1987

The stock market slide in October of 1987 obscured the fact that the U.S. economy continued to expand last year. Over three million jobs were added to the economy, according to the BLS, with the unemployment rate declining steadily over the year from an annual average rate of 7.0 percent in 1986 to 6.2 percent in 1987. And by December, the civilian unemployment rate stood at 5.8 percent. The BLS reports that the number of discouraged workers (those who have stopped looking for jobs because they do not think they can find them) dropped to just over 900,000 in the fourth quarter of 1987, the lowest it has been since the fourth quarter of 1979—a year of similar economic growth and relatively low unemployment.

Black workers shared in the job expansion, picking up just under 500,000 jobs over the course of last year. The overall unemployment rate for blacks dropped from 14.5 percent in 1986 to 13.0 percent in 1987, while the employment-to-population ratio for blacks (the proportion of the population over the age of 16 that is employed) rose to 55.6 percent, a new high.

Despite these advances, blacks made few gains in the labor force relative to whites. The 13.0 percent black unemployment rate was nearly 2½ times the 5.3 percent rate for whites. And the employment-to-population ratio was nearly seven percentage points less than that for white workers (62.3 percent). Blacks were also

disproportionately represented among discouraged workers. (See *Focus*, April 1987, "Update on the Job Status of Blacks.")

Fewer Jobs for Black Youth

The largest differences in employment between blacks and whites in 1987 were among young people under the age of 25. Black youth seeking work were twice as likely as white youth not to be hired. And since unemployment rates exclude individuals who are not looking for work, they tend to understate joblessness among black youth. Only one-quarter of all black teenagers 16 to 19 years of age had jobs for some period during 1987, compared with nearly one-half of all white teenagers. About 1.4 million or just over one-half of black youth aged 20 to 24 were employed at some time in the year, while three-quarters of the whites in that age group held jobs.

BLS data also reveal that *nearly two-thirds of black teenage males did not work at all* during 1986, compared to only one-third of white teenage males and one-half of Hispanic teenage males. And close to one-quarter of black males between the ages of 20 and 24 were jobless the entire year, while less than one-tenth of white males in that age group reported not working.

Large differences existed between black and white females as well. Nearly two-thirds of black teenage females, and one-third of black females in their early 20s, did not work at all during 1986. These proportions were twice as high as those for white females in the same age groups.

There were several reasons for the disparities in employment between black and white youth. First, black youth were less likely to be in the labor force, that is, to be among those actively seeking work. Only 57.3 percent of blacks between 16 and 24 were in the labor force, compared to 70.8 percent of whites.

About 17 percent of black youth (mostly young women with children) had home responsibilities that kept them out of the work force. This was also true of 18 percent of young whites. Only 4 percent of black youth reported that they were not looking for work because they thought they could not get a job. Even so, that was twice the rate for white youth.

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The unemployment rate for black teenagers was 34.7 percent in 1987, and the rate for blacks between the ages of 20 and 24 was 21.8 percent. These compare with rates of 14.4 percent for white teens and 8.0 percent for whites in their early 20s.

Table 1. Unemployment Rates by Age, Race, and Gender, 1987

Age	Unemployment Rate			
	% Blacks		% Whites	
	Male	Female	Male	Female
All Workers Over 16	12.7	13.2	5.4	5.2
16-19 Years	34.4	34.9	15.5	13.4
20-24 Years	20.3	23.3	8.4	7.4
25-29 Years	13.0	14.8	5.5	5.3

Source: U.S. Bureau of Labor Statistics, *Employment and Earnings*, January 1988.

Jobs and Education

Both labor force participation and unemployment are closely linked to educational attainment. Regardless of race, individuals without high school diplomas are much less likely to be employed than those with 12 or more years of education. However, even when blacks and whites with the same amount of education are compared, there are racial disparities in joblessness and in expected earnings. Data from the Washington-based Children's Defense Fund show that black males 20 to 24 years of age who had not graduated from high school had mean earnings of only \$2,825 in 1984, compared to \$7,674 for young white males who had not completed high school.

Blacks in their 20s and early 30s who had low levels of education were less likely than their white counterparts to be in the labor force in 1987. Furthermore, they had unemployment rates that were more than twice those of whites with similar educational backgrounds.

Table 2. Unemployment Rates by Educational Attainment, Race, and Gender for Workers Between 25 and 34 Years of Age, 1987

Age	Unemployment Rate			
	% Blacks		% Whites	
	Male	Female	Male	Female
Less Than 4 Years of High School	23.5	25.4	14.0	14.7
4 Years of High School	13.9	15.9	7.2	6.5
1-3 Years of College	7.9	9.2	5.0	4.0
4 or More Years of College	5.0	4.8	2.8	2.3

Source: U.S. Bureau of Labor Statistics, "Educational Attainment of Workers," March 1987.

While differences in employment between the races were smaller among those with more education and

among individuals in their late 20s, blacks still suffered greater joblessness than whites at every age and educational level.

Prospects for the Future

Despite the fact that the overall black population is younger than the white population, and therefore will become a larger part of the work force in the future, the employment outlook for black youth without at least some college education is not promising. The BLS projects that the black work force will grow almost twice as fast as the white work force over the next 12 years (1.8 percent per year vs. 1.0 percent). In addition, the BLS forecasts that in the year 2000 blacks will constitute more than 17 percent of the American labor force, compared to just under 11 percent of the labor force in 1987. However, this relative increase in representation will not necessarily mean lower rates of joblessness. Skill requirements for workers will increase, with a larger proportion of jobs requiring at least one year of college.

An examination of the distribution of occupational growth shows that job opportunities will be greater in high paying, white collar jobs over the next 12 years. While overall employment is projected to expand 19 percent, employment in executive, administrative, and managerial categories is expected to grow by nearly 29 percent. Moreover, jobs in professional fields will grow 27 percent, while opportunities for technicians and related support workers will increase about 38 percent. Currently, the individuals holding those jobs have from 1 to 6 years of college or university education. Thus, the prospects for those who do not go on to college are limited.

In 1987, only 34 percent of blacks in the labor force had 1 or more years of college, compared with 46 percent of white workers. While the high school graduation rate for blacks continues to rise, their college attendance rate has declined. About 2.8 million young Americans of all races graduated from high school in 1986, and more than one-half of them, 54 percent, had enrolled in college by October of that year. But while blacks were 13.8 percent of the high school graduates, they were only 9.4 percent of college freshmen. Today only one-quarter of black high school graduates 18 to 24 years of age are in college compared to over a third of white high school graduates, and the gap between black and white college entrants is now larger than it has been in 20 years.

The inability of black youth to share proportionately in college enrollment and employment opportunities is a problem not only for the youth of today and their families but for the larger economy as well. If the United States is to increase its economic competitiveness in the international market place, policies must be implemented to increase black college enrollment and to provide more job opportunities for black youth across the board.

DIFFERENCES IN QUALITY BETWEEN POSTSECONDARY SCHOOLS AND
ELEMENTARY AND SECONDARY SCHOOLS

Representative SOLARZ. Thank you very much.

Let me ask you a question which I asked the previous panel. How do you explain the fact that we seem to have an outstanding system of postsecondary education in the country but seem to have a flawed system of elementary and secondary school education in the country? Mr. Packer.

Mr. PACKER. Well, there has been considerable work on that. Part of it is the choice in the postsecondary situation. If a college is poor, it gets fewer and fewer students. It goes out of business.

John Bishop has written an interesting paper on another problem. Employers and most colleges do not care about your high school performance as a student. All you have to do is graduate. Bishop's evidence is that the typical employer does not care if you studied basket weaving or mathematics or if you got A's or C's. He says do you or do you not have a high school diploma. If you say yes, you are hired as far as that is concerned. He may give you a test, but there is very little incentive for good high school performance.

In the United States, if you do not want to go to an elite college, if you want to go to the State community college system, again, a high school diploma gets you in, and it does not matter if you do well or take it easy.

Now, the Japanese system, on the other hand, is easy at the college level, and the colleges are not very good. But you work very hard in high school because high school in Japan determines what college you get into.

Mr. CARNEVALE. I would agree with what Arnie Packer says.

I would take it a step further back than that. We have been the master of an economic system for quite some time, since 1870, with the highest productivity rates in the world, succeeding the British as the world's productivity leader. The system that we used to do that in the workplace was one where you put all the smart people at the top, all the people with the education, these white collar, and technical elites, your engineers, scientists, managers, and professionals in another class. Then you had a whole gaggle of people. It did not matter how much they knew or how good they were. What really mattered was their work effort and their ability to show up to work. We have a different kind of economy now.

In those days we had a mass production economy and we built the mass production education system which basically produced two kinds of students, college-bound students—the schools I went to—and the students who were not college bound. If you were in the other half of the high school class, you did not matter very much. You did not get much education or much good education. You were there to make the numbers right for the people at the top. When you went into the workplace, you got a job that was designed in a way that did not challenge you very much with very rigid and fixed technology and repetitive tasks and so on. There was not a lot of skill required. You could be an autoworker and have a very bad education and make a lot of money.

The economic system that is out there now demands that that other half be of a much higher quality and that is where we do not compete well. We still make, I would argue, the best white collar and technical elites in the world, but it is the other half of our companies—

WHY DO THESE DIFFERENCES EXIST?

Representative SOLARZ. That is my question. Why?

Mr. CARNEVALE. Because it worked before admirably well. All you needed was an elite group of very bright people and a lot of hardworking people for them to move around.

Representative SOLARZ. But presumably that was true for other countries as well, and yet the other countries seem to have adapted their educational systems in ways that are producing better results.

I am just thinking aloud. Is it perhaps that the fault lies not in the schools, but in the society, that the problems you are describing in the schools are a reflection of problems in the society? Perhaps in some of these other countries they do not have the deeply rooted social problems we have in our country, they do not have as much of an underclass perhaps as we do or the same kind of racial tensions or drug problems or the like that produce students that are very difficult to help. They come from broken homes, single parent families, and high-crime neighborhoods. Transpose that to Japan and I suspect the Japanese schools would not be doing as well as they are doing now. I don't know.

Could that be really the explanation?

Mr. CARNEVALE. I do not think so. See, I guess my training is an economist, and I always think the sociology follows the economics and not vice versa.

This question is naturally asked, why is it that we came out this way and they didn't? The story that has come up lately among economists is, well, it did not happen for them that way because they got lucky. They tried to copy us and they couldn't.

In Germany, for instance, after the war, when this system came full blown in the United States, they tried to produce for mass markets, but they did not have any. They had very small market sizes. Therefore, they had to have a much more flexible production system.

They also had a strong leftwing tradition in those countries that did not allow them to utilize unskilled labor the way we have. They developed a very highly funded apprenticeship structure that forced them to use people differently than we did.

If you were a German carmaker, Volkswagen, at the end of the war you wanted to make a mass produced car, but you had to make it for Italy and Sweden, and those are two different cars. One was heavy, a gas guzzler for a northern climate, and the other one was for a southern climate. The Italians taxed gas and cars by weight. The Swedish did not. You have to have a different assembly process, more flexibility and a better utilization of workers.

They also did not have the white collar and technical elites.

The story that emerges—and it is suspicious because it says that they were lucky, not good—among economists these days is that at

end of the war, because they did not have our market structures, they went in another direction toward flexibility in their organizations, in their work structure and their use of technology. When the flexible technology came along, the computer, they were ready to use it and we were not. There is fairly strong evidence in that regard, that they were utilizing work structures and flexible technologies and flexible workers much more successfully than we are.

That to me is an unsatisfactory explanation, but it is part of the story, and maybe the other pieces are the pieces you are referring to.

IS OUR EDUCATIONAL SYSTEM IN CRISIS?

Representative SOLARZ. Well, let me ask you this. Would you all agree that our educational system is in crisis, and that if we do not begin to do a much better job, the country is going to pay a very heavy price economically in the 21st century?

Ms. SIMMS. Congressman Solarz, I would just like to say a few words on the last issue.

Representative SOLARZ. Well, answer that one.

Ms. SIMMS. Yes. It is connected.

Representative SOLARZ. Let the record reflect heads nodded up and down with various grunts of assent, with varying degrees of emphasis. [Laughter.] But there seems to be a consensus.

Yes, Ms. Simms.

Ms. SIMMS. On the issue of problems of the children and where the fault lies. It is certainly true that the United States, in comparison with Japan, does have a much more diverse student population, and our school system has failed to come to grips with this.

The issue of family problems is not one that is isolated to a particular segment of the population, and I think we have to come to grips with it—single families occur across the spectrum. Two working parents is also an issue with regard to interaction with the schools. And we have not been flexible in our workplaces. We have not been flexible in our schools in terms of adapting to changes within the society. And I think we have to look at that. I do not think we are alone in that regard either.

WOULD FULL FUNDINGS OF HEAD START, WIC, AND CHAPTER 1 MAKE A DIFFERENCE?

Representative SOLARZ. How much of a difference do you think it would make if we somehow or other did muster the political will to fully fund WIC, Head Start, chapter 1? Let's just concentrate on programs that can relate to how people do in the elementary and secondary schools. If we were to provide enough money so that every child in the country who is eligible got into Head Start, got into chapter 1, benefited from a WIC Program, do you think that that in and of itself would make a significant difference in the dropout rate, in terms of how our kids did compared to the kids in other industrialized countries on these surveys they conduct? Or do you think if that was all we did, nothing else, no restructuring and the like, that it would at best only be marginally beneficial?

Ms. MCBAY. I think it would be a major step in the right direction to do that because I think what would happen as a result is

that you would have minority children and low-income children coming to school, coming to kindergarten knowing their colors and knowing sizes and shapes, and they would not so immediately be labeled as needing special education. So, I think it would make quite a difference to have that preschool experience.

Now, having said that, you cannot just fix one part of the system. You are getting them ready for school, but school has to also be flexible, adaptable to what students bring, the experiences that they bring. We must also address the quality of the educational program that students receive—we have teachers unfortunately who are teaching subjects that they are not qualified to teach. So, you are going to have to also focus on retraining them, on getting more qualified teachers, on getting teachers who are interested in working with low-income children. So, it is not just enough to do what you are suggesting; it certainly is necessary, but not sufficient.

Ms. SIMMS. I would say from the Federal perspective, that would be a key element. Those are the areas in which the Federal Government has provided both leadership and funding in the past. The National Government cannot get involved in some of the day-to-day operations of schools, and should not be involved.

Representative SOLARZ. Well, if part of the problem is not simply a shortage of resources, but the way in which the schools are structured and operate—you describe at some length, Ms. McBay, the problems that teachers have low expectations of the kids, they spend more time trying to keep order than they are teaching, and so on and so forth. We heard earlier that principals need more autonomy, the parents should be more involved, so on and so forth.

WHAT CAN THE FEDERAL GOVERNMENT DO TO CORRECT THE PROBLEM?

Let's assume all of these things are problems and need to be corrected. What can the Federal Government do to get them corrected? I am here as a Member of Congress. I can introduce a bill to provide x billions of dollars for Head Start. It is not at all clear to me what I can do to get teachers who have low expectations of their kids to have high expectations. It is not clear to me what I can do to get the teacher you saw who spent most of his or her time trying to keep the class quiet to spend more time teaching. It is not clear to me what I can do to get more authority to the principal of the school down the block so that he or she has more of an ability to tailor the education in his or her school to the requirements of the students that are there.

Do you have any thoughts on this, particularly keeping in mind that I think something like only 5 percent of all the money spent on elementary and secondary education in the country comes from the Federal Government? Isn't that about it?

Mr. CARNEVALE. It is a little more than that I think, or has it gone down that far? Seven percent I thought.

Ms. SIMMS. No more than 7 percent.

Representative SOLARZ. I understated it by 40 percent. [Laughter.]

Mr. CARNEVALE. Let me answer in a couple of ways. First, this same problem was faced by American and private employers a

short while ago in their own performance. For a whole variety of reasons, given that you cannot control what goes on in the classroom these days any more than you can control what goes on in the assembly line—what they ended up doing was opting for a new organizational format which was highly decentralized and flatter in structure. Then what they did is sort of managed at a distance by measuring outcomes and allowing work teams to do whatever they liked as long as the outcomes were met, and then intervened when the outcomes were not.

We are involved at the moment in all States in the Nation in the same process in the public sector, that is, trying to build a system of standards so that we can begin to measure outcomes in schooling and in a whole variety of public programs. It happens to be very difficult in the public sector because as a matter of history and tradition in the United States and elsewhere, we guarantee access to public services and not outcomes. But I think our basic instinct and the one you hear from Bob Jones in the previous testimony and this commission that Arnie Packer is going to run is to begin to build standards and then to release money on the basis of people's ability to meet those standards. If they do not meet the standards, they do not get the money.

I think that is a different business in the public sector. A lot of public professionals are opposed to that, but the same processes in organizational reform are at work in public organizations as they are in private, and ultimately we are going to get to that point where we are measuring the outcomes of public work.

Representative SOLARZ. Would you then, in effect, make full funding of these programs conditional on meeting certain performance standards?

Mr. CARNEVALE. I would make the performance standards highly decentralized, that is, decentralize them as far as I could in the delivery system, certainly down below the State level to the classroom level if possible, and award people for building such standards. I would also make those standards and enforce them at the Federal level, that is, begin to look on public programs in terms of their performance.

MAKE FEDERAL MONEY AVAILABLE BASED ON PERFORMANCE

Representative SOLARZ. Well, let me see if I understand what you are saying. You are saying the Federal Government should say to a local school district we are willing to give you enough money so that every kid in your school district can be in a chapter 1 program who needs it. But before we are going to give you any money, you have to define some performance criteria because we want to make sure this money will be well used. Presumably the performance criteria would relate to the number of kids in the program who got up to grade level in a certain amount of time.

My sense is that their incentive is to keep those standards as low as possible in order to make sure that they continue getting the money. In a way it almost gives them a perverse incentive to have low standards rather than high standards because the higher they set the standard, the less likely they are to continue getting the money.

Mr. CARNEVALE. I think in this case what you rely on is the cooperation of the community and the parents, and obviously this is a political act as much as it is a managerial one at this point. When you set that in motion in public programs, you will get differences in standards in different places and rightfully so.

Representative SOLARZ. Why not have it set by the Federal Government?

Mr. CARNEVALE. I think that is illegal. I am not sure, but isn't the States' prerogative to manage and set standards for education even if the money is Federal? I am not sure of that.

Representative SOLARZ. I do not imagine that is anything unconstitutional by saying if you want our money, then you have to demonstrate that 75 percent of the children who participate in this program reach a certain grade level by the time the program is finished. And if you cannot do that at the end of the year, then you get less money.

Ms. MCBAY. Then the students suffer from that.

Representative SOLARZ. Well, except the argument would be that if they are not reaching that standard, they are not benefiting and the taxpayers are losing. Personally, I am all in favor of providing more money for these programs, but that is in the assumption the programs are working. If, in fact, they are not working, then it is a waste of money.

I do not see in principle what is wrong with the performance standard. In other words, we all like Head Start because the tests or surveys seem to indicate it works. If the tests or surveys indicated it did not work, it would not have as much support as it does. But what is wrong with—

Ms. SIMMS. I don't think there is a problem with setting standards for programs. I think what we have to be careful of is the way in which the standards are set. We went through this with JTPA, and you can set standards and the incentives may be such that the original intention of the program is slightly perverted in order to meet the performance standards. That does not mean that people do not get served, but maybe those that you might want to be at the head of the queue do not get to the head of the queue because of performance standards.

THE VALUE-ADDED APPROACH

I would think that a value-added measure is more appropriate than an absolute standard.

Representative SOLARZ. What do you mean by a value added?

Ms. SIMMS. In other words, how much do you raise the performance of the children, not setting, at least initially, an absolute standard because the children will come in with differing levels of preparation. And what you want to encourage is adding the most to their preparation not necessarily taking those who need the least added to it.

Ms. MCBAY. In addition to providing resources to the schools based on that, I would also reward the teachers who made those accomplishments possible. In addition to that, the Federal Government could also engage in a number of activities. I know there are bills around that address this, that have as the desired outcome

raising the status of the teaching profession. And I really think that has to happen at the same time so that you could attract a different or a better quality of teacher.

ELEVATING THE STATUS OF TEACHERS

Representative SOLARZ. How does the Federal Government raise the status of the teaching profession?

Ms. MCBAY. Well, there are professional standards being developed that the Federal Government is helping to support, and other non-Federal sources are supporting efforts to raise standards that teachers have to meet. But at the same time, they are also advocating increasing the pay that teachers receive.

When we talk about extending the school year, we are also expecting teachers to work. Teaching is the only profession I know where you work only part of the year. Most people work year round. Obviously, they would need vacation. They do not have to be teaching the same thing they have been doing the rest of the year. But there are things they can do to improve. They can use that time to improve their understanding of the subject they are teaching. They can work on curriculum materials. They can try to learn more about the cultures of the children they are teaching. So, there are things that you can do to support raising the status of the profession.

THE TOTAL QUALITY MANAGEMENT APPROACH

Mr. PACKER. First, I would suggest we have had a revolution in this country in manufacturing. We have a lot of world-class manufacturing companies. They have followed some principles that I think can be applied to the education system. Edward Deming is the foremost advocate of what is called total quality management. I gather every defense contractor who wants to bid in the future will have to have a TQM plan within their proposal.

The first thing Deming has said is focus on quality. Do not think you are going to get away cheap. If you produce a car that is a lemon, that is a very costly operation. School systems that produce lemons get denigrated. We have problems with JTPA systems in which tracking or making people look as if they are second class is just counterproductive. And when schools have a 25-percent drop-out rate, we are not focusing on quality.

We tend sometimes in legislation to say, well, let's cover everybody. We cover 6 percent in JTPA. Is it going to be twice as good if we cover 12 percent? I think Bob Jones is saying in some cases, we are better off putting in more quality.

IMPACT OF SOCIOECONOMIC BACKGROUND ON PERFORMANCE

Representative SOLARZ. Let me ask you something about that. I doubt that anybody has ever tried the following experiment, but I am curious what you think would happen if the following experiment were tried.

Take two schools in the same city: one school in a sort of well-to-do area, the other school in a poorer area. And presumably the kids in the well-to-do area in their school are doing better on all sorts of scores than the kids in the poor area. Now, take the kids

from the poor area and send them all to the school in the better area. They have the same facilities, the same teachers, that were in the well-to-do area. And then take the kids from the well-to-do area and send them to the school in the poorer area. So, they are now in the school, same school, same facilities, plaster falling down from the ceiling. The same teachers that were teaching the poor kids are now teaching them.

Do you think that the results would reflect the school and the staff, or would the results reflect the students who go in the first place?

Mr. PACKER. Sometimes it reflects the expectations of the teachers. There have been studies in which they have told the teachers lies about students' IQ tests. At the end of the term, the kids end up where the teachers think they came in. That is, if they think Johnny is dumb, Johnny gets a C, and if they think Sally is smart, Sally gets an A even though that is not the way the real—

Representative SOLARZ. So, let's say in the school in the well-to-do area—let's say 80 percent of the kids were at grade level in reading and everything, and the poorer area 30 percent were at grade level. Do you think if you flip-flopped it, it would turn out that the kids from the poorer area were now at 80 percent of grade level and the kids from the well-to-do area were at 30?

Mr. PACKER. No.

Ms. SIMMS. It is not going to be that simple.

Ms. MCBAY. Are you going to let the teachers know that you have done this? It is the expectation issue again. There are certain assumptions that are made by teachers when they see students who come from certain kinds of circumstances.

Ms. SIMMS. I think there is also the issue of what the parents of the children from the well-to-do school choose to put up with. And if they decide that the quality of the school their children have been moved to is not sufficient, they have the resources to either make the school better, supplement it with private resources, or take their children out of those schools. And that is an option that is not available for all we talk about choice. Those options are not available to the parents who do not have economic resources.

Mr. PACKER. But if, for example, the sorts of things that Dr. Comer, the psychiatrist at Yale, has been doing were more widely used, the early evidence suggests that it would make a substantial difference. Whether his work really requires a heck of lot more resources, I don't know.

Ms. MCBAY. Well, he has \$15 million.

Representative SOLARZ. Has anybody ever measured the relative impact on how well kids do in school of the kind of families and homes from which they come compared to the kind of school in which they were?

Mr. PACKER. The mother's education is the single most significant variable in determining how well a youngster will do.

Ms. SIMMS. But, of course, that is so tied up with the other resources that it is hard to disentangle the effects. High income and high education go with the school.

Representative SOLARZ. But that is sort of common sense, isn't it? I must say I think, obviously, the schools play an important role, but I think there has been a slight tendency here to saddle the

schools with a little bit too much of the responsibility. No doubt they can do better, and they should do better. And it is cheating kids when teachers have low expectations which is unfair to a kid. Every kid should be entitled I think, at least initially, to the highest expectations. But a lot does depend on the kind of family the kid comes from. Of course, I suppose there are a lot of kids who come from wretched families and desperately poor families and families with all sorts of afflictions who end up doing well.

Mr. PACKER. But there has been evidence that the right kind of interventions can overcome that. That is what Head Start is about. That is what Dr. Comer's work is about. That is what the computer-based education that is appropriate does.

U.S. ECONOMIC CHALLENGE FROM OTHER INDUSTRIALIZED COUNTRIES

Representative SOLARZ. I am thinking of putting together something called an Omnibus National Security Act of 1990, which is based on the notion that the real challenge to our security now that the cold war is over comes from the economic challenge we face from the other industrialized countries. And this legislation would provide over 5 years for the following.

Full funding for a whole series of programs designed to enhance the human resources of the country, Head Start, WIC, chapter 1, adult literacy programs, science and math programs, all of that stuff, so that at the end of the 5 years every kid in the country who is eligible for these programs would get the benefit of them.

Also provide additional resources to deal with the physical infrastructure problems that we have, roads, highways, airports, and the like, while simultaneously eliminating the deficit over 5 years on the grounds that that is needed for the health of the economy.

And that would come through a combination of reductions in defense spending made possible by the end of the cold war, plus a fairly substantial increase in revenues because the cumulative deficit over 5 years to which one would have to add the increased funding for these human resources and physical infrastructure program comes out to quite a bit of money. But with something like a 25-cent-a-gallon gasoline tax, some sin taxes, an increase in the elimination of the bubble, increase in the personal income tax rate from, say, 15 to 16 percent and from 28 to 30 percent, you could do all of that in 5 years.

Now, I would be interested to what your reaction would be to this. I want to ask you two questions. In general, is this something you would support? Do you think that this would be a worthy investment for the country and something for which the American should be willing to pay somewhat more in taxes?

And second, if the answer is yes, to what extent would you link, if at all, the increased funding for the human resource programs to some performance standards that would have to be met in order for local schools and communities to get the benefit of the additional funding? What do you each think?

EXTEND SCHOOL YEAR

Ms. McBay. Well, first of all, I hope you will have in the package extending the school year because there is one point that has not

come up here: there are studies that show that low-income children and minority children tend to lose 80 percent of what they learned during the year over the summer. So, I just want to make sure that the school year is in the package.

Representative SOLARZ. That is in the package. What is it? The 20 largest school districts in the country? Twenty-two.

Ms. MCBAY. Great.

DO WE NEED A SAFETY NET FOR SCHOOLS THAT FAIL?

My only concern about the performance standards is that I do not see what happens if schools fail. Under that scenario, how do you prevent the children from not getting a quality education? So, the school does not meet the standards, and then what? The State has the responsibility to provide some education for all children.

Representative SOLARZ. I would imagine if we did that, it would be based on this assumption. With sufficient will they can meet the performance standards, that if you say to them, look, this money is available, if the communities know it, if the States know it, if the cities know it, if the parents know it, they will find ways to make sure the standards are met. And if in fact the standards are not met, then it is not worth the money.

THE VALUE-ADDED APPROACH

Ms. MCBAY. I think you ought to modify, as Ms. Simms suggested, to the value-added measure because I think, first of all, no one is going to agree on one standard. But if you did talk about a delta improvement and linked it to the size of that delta, I think that would be certainly acceptable.

Representative SOLARZ. What do the rest of you think?

Mr. CARNEVALE. That piece, it seems to me as you outline it, is the priority piece.

Representative SOLARZ. Which piece?

A DEMAND-SIDE INCENTIVE

Mr. CARNEVALE. Well, fully funding a whole set of programs that essentially provide human capital development for disadvantaged folks. The other piece is a whole set of services now necessary for working Americans which is an expensive piece of the action.

Representative SOLARZ. JTPA you mean.

Mr. CARNEVALE. No. That is for people who have fallen out of the work system. I'm talking about people who are already at work—and a variety of competitiveness commissions and others have recommended support for the development of the current work force.

Representative SOLARZ. What?

Mr. CARNEVALE. We need some sort of a demand-side incentive here. We need to set the hook in the workplace by giving employers themselves an incentive to train so that they will utilize trained workers more and more. So, to the extent that we already provide very large tax benefits, let's say, to employers for investments in machine capital, we ought to build a more level playing field here in terms of their willingness to expend moneys to train the workers they have—in the interest of the workers, and in the interest of the competitiveness of American organizations.

Representative SOLARZ. To the extent that training their own workers would increase their productivity and competitiveness, it presumably would increase their profits. Doesn't our system give them sufficient incentive to do it?

Mr. CARNEVALE. All the way back to the early 1960's, it has been the general presumption mostly in American economics that American employers do not invest sufficiently in machine capital. Prior to and beginning in a fairly aggressive way with the Kennedy tax cuts, we have ever since, with a little bit of a rollback starting in 1980, increased the incentives to invest in machine capital.

Representative SOLARZ. But we do not have a tax incentive to invest in human capital?

Mr. CARNEVALE. No, we do not.

Representative SOLARZ. Really?

Mr. CARNEVALE. No.

Representative SOLARZ. In other words, if I am employer and I buy a machine, I get some kind of a tax credit for that.

Mr. CARNEVALE. Yes. You get depreciation allowances. There are a variety of ways.

Representative SOLARZ. But if I want to take a worker and send the worker to some training programs for 10 weeks in order to improve the worker's productivity, for that I get nothing.

Mr. CARNEVALE. That becomes a business expense that is not depreciated over time. And in general and in the employer economy, the incentives are very weak to do that because you lose the skill of the worker. That is, the person can wander off. You do not own the worker, and for a whole variety of other reasons.

As a result of that, a whole series of institutions have been supportive of some measure—and it is not clear what is it. The usual one is a tax credit.

AN APPROACH UTILIZING A TAX CREDIT

Representative SOLARZ. Is there any proposal out there that embodies this concept you have described?

Mr. CARNEVALE. The MIT Commission on Industrial Productivity suggested tax incentives thinking of a tax credit. The Secretary of Labor's Commission on the Skills of the American Work Force suggested a tax credit and specified the credit.

Representative SOLARZ. How much did they estimate it would come to?

Mr. CARNEVALE. They do not know. Well, the best guess on these sorts of things is if you run the numbers and pattern them after the R&D tax credit assuming similar behavior—that is, investments in human resources are roughly parallel to investments in R&D because there is lots of uncertainty involved and so on—then one supposes that the costs are similar to the R&D tax credit. And memory does not serve me here as to what those were. You are talking about something on the order of \$3 or \$4 billion. Am I right about that? I think so.

Representative SOLARZ. How many workers would benefit?

Mr. CARNEVALE. Currently employers provide training for about 10 to 13 percent of American workers. Currently that represents about 1.4 percent of payroll nationally. The companies who are in-

dustry leaders in this, such as IBM, do 7, 8 percent. You would want to raise the number I would suppose. How much is enough? I don't know. But if you wanted to go from 1.4 to 2 or 3 or 4 percent, you are talking about a doubling of the current expenditure, which is about \$30 billion. Maybe you would want to go to \$60 billion as sort of a first cut.

Representative SOLARZ. \$60 billion a year?

Mr. CARNEVALE. You would want employers to expend \$60 billion a year.

Representative SOLARZ. How much does that cost us in taxes?

Mr. CARNEVALE. I think that is \$3 or \$4 billion.

Representative SOLARZ. Are you saying \$3 or \$4 billion in tax expenditures would leverage up to \$50 to \$60 billion in employer expenditures?

Mr. CARNEVALE. I'm doing this from memory, but we have played with this before, and it is something on that order depending on how you structure the tax credit.

Representative SOLARZ. Could you get back to me on that?

Mr. CARNEVALE. Sure.

Representative SOLARZ. Because I think that kind of proposal would fit very nicely into the kind of omnibus approach I am taking.

AN APPROACH USING THE UNEMPLOYMENT INSURANCE TRUST FUND

Mr. CARNEVALE. Well, let me try two other things on you then. There is another commission—there is always another commission—that will report out of CEO's. And Secretary Brock and former Secretary Marshall in a month or two will also recommend, in addition to the tax credit, that we do something with the unemployment insurance trust fund, which is a whole other way to do it.

Representative SOLARZ. What is that?

Mr. CARNEVALE. Frankly, the unemployment insurance trust fund confuses me, too. The basic proposal is to add a very small tax on top of the unemployment insurance trust fund, and that employers that expend up to a certain percent of payroll would not have to pay the tax. Those who do not expend up to a certain amount of payroll would pay the tax into a national fund which would be redistributed for adult education and retraining is that basis of that proposal.

DEVELOP A HUMAN RESOURCES MITI

The third piece of their plan will be, I judge as a member of the commission without anybody having signed off on this, a set of proposals on the presumption that the way to get employers to do things is you either make them or you persuade them or you show them. The show-them option is to increase—and it is the cheap way out of this—the infrastructure available to do R&D on all of this stuff, that is sort of a human resources MITI in the United States. We expend, the arguments usually run, \$130 billion a year on education research at the Federal level alone. We expend nothing on research on how we select, appraise, reward, and train employees at work.

Representative SOLARZ. Shouldn't that be done by the Department of Labor?

Mr. CARNEVALE. But they do not have a budget for that. That is, the R&D budget for these purposes literally does not exist. We do not spend any money on these things. If an employer wants to know how to install machinery or train a technician, they do not know where to go to find out.

Representative SOLARZ. Well, I think we will want to follow up with you on these particular pieces, but they certainly sound very intriguing.

AN OMNIBUS BILL APPROACH

What do the rest of you think about this approach of an omnibus bill which would do the things I have described?

Mr. Packer.

Mr. PACKER. Well, I think there are some very interesting things in it.

I would suggest you might want to look at Congressman Sawyer's literacy bill which has a center to do research. Sawyer's bill has some incentives for teacher training and technology in the adult literacy area, and some of those provisions might be of interest to you.

I do think that it is important to link any substantial additional resources to performance. I think in the long run the American public will react negatively to more money spent for no more results.

Representative SOLARZ. So, as a practical matter, how would you deal with that in the context of this kind of bill? I obviously do not have the capacity to draw up the standards myself. Would you, for example, ask the secretaries of the relevant departments with the responsibility to draw up the standards in consultation with communities and States and relevant providers around the country and then make that subject to congressional approval? Or how would you like it?

Mr. PACKER. Well, first generally, one of the things suggested in the last of these "Workforce 2000" reports is that it would be good if States which now pay 100 percent of their dollars on average daily attendance would cut back to, say, 70 percent of the costs on average daily attendance and another 30 percent paid as incentive payments for meeting performance requirements. For example, the Feds might say, we will put in another 5 percent if you will shift to an incentive based system. The incentive should be based, as two colleagues of mine have suggested, on the students' improvement rather than absolute levels of standards.

I think that if the Federal Government could recommend some performance standards but let the States, if they want to, choose their own standards. Some Federal approval of State standards might be appropriate, but some incentive from the Federal Government that would say if you will go—

Representative SOLARZ. Presumably you would make, for example, in the area of education, the Secretary of Education responsible for developing standards or promulgating standards that might be developed by the localities or perhaps by—

Mr. PACKER. I even have the audacious hope that this SCANS commission might come up with some ideas of what those standards might look like or at least what a model set of such standards would be.

Ms. MCBAY. I would hope that the Secretary or whoever would be charged with this would look at some of the work that has already been done. Attorney Hornbeck has done this, for example, with a group of people with the State of Kentucky. I think looking at that work and then looking at some of the standards that have been set up by associations, like the National Council of Teachers of Mathematics have standards, the NSTA, National Science Teachers Association. So, I think we would want him or whoever is charged to look at existing work and build on that as opposed to creating 50 different versions.

Representative SOLARZ. What kind of standards would you have for something like Head Start?

Ms. MCBAY. Well, I think you would want to have social skills. There is a certain socialization that needs to occur with children before they enter school. I think just basic things like sizes and colors and shapes and up from down, just things that children normally would be expected to know in a home where parents were able to provide that. I do not think that we should get too much into trying to make them start kindergarten 2 years early or first grade 3 years early.

Representative SOLARZ. Ms. Simms.

Ms. SIMMS. Yes. I think that the type of bill that you are proposing is not only a worthy investment, I think it is a necessary investment as we move toward the year 2000.

On the issue of the performance standards, I think that we have to give more consideration to the mechanisms by which they are set. Rather than having the Federal Government set absolute standards, we should ensure that different parts of the community are included in the setting of performance standards so that parents, for example, are not excluded from participation in this activity.

Representative SOLARZ. Well, I think that is a very useful suggestion and we will certainly try to incorporate some language along those lines in it.

Now, the programs that we are talking about in the area of education and job training are WIC, Head Start, chapter 1, math and science education, extend the school year for at risk youth, student financial aid—what is that Pell grants—Pell grants, fully fund that, JTPA programs—I think we expanded by what? Two or three? Three, tripling the number of slots for JTPA—and adult literacy. Other than the things that Mr. Carnevale mentioned about the on-the-job training and the tax credits for that, is there anything else you can think of that you would like to see in such a bill?

Ms. SIMMS. I would like to follow up on a comment that Ms. McBay made with regard to taking account of things that we already know. I think one of the things that the Federal Government can do at relatively low cost is to make information available about replication of programs that are successful. A lot of work has been done, a lot of experimentation has been tried. And not everybody

knows about it. We tend to think everybody does because we know about it here in Washington.

Representative SOLARZ. But aside from the things I mentioned, do any of you have anything you want—speak now or forever hold your peace.

Mr. PACKER. Some people might think about the work welfare program, the jobs program for welfare recipients.

Representative SOLARZ. Yes, Mr. Carnevale.

Mr. CARNEVALE. One other thing that I would add, and it is something that does not cost a lot of money. There are still some things we have not done with dislocated workers that could be done, changing the structure and eligibility provisions of some Federal programs so that middle-class workers in the United States do not have to do a free fall from middle-class status to poverty before they are eligible for lots of programs once they have been dislocated from a job in which they have had at least 2 to 3 years' prior full-time experience. We started down that road, and I lost track of it a few years ago as to why it did not work. But it is a matter of changing eligibility provisions in some programs so that a dislocated worker would have access to a program that young people and people who meet poverty criteria do.

Representative SOLARZ. Yes, Ms. McBay.

Ms. MCBAY. One other thing I would add is the provision for apprenticeships during high school through which students would have an opportunity to experience what is required in the work force and be prepared for work after spending some time with a mentor.

Representative SOLARZ. Is there an established program which does this or some bill that would establish it?

Ms. MCBAY. No, not that I am aware of.

Mr. PACKER. The Labor Department is moving toward that. I think that Bob Jones referred to some of that today. Jim Van Erden, who works for Bob Jones, is heavily involved in just that particular issue and extending the apprenticeship concept beyond the construction industry.

Representative SOLARZ. And how would this work? Kids would do this after school?

Ms. MCBAY. No. They could spend actually a certain number of hours each week at a job site, and they would have an adult mentor at the job site.

Representative SOLARZ. This is sort of what the Germans do?

Ms. MCBAY. Right.

NATIONAL HIGH SCHOOL AND ELEMENTARY SCHOOL COMPETENCY EXAMS

Representative SOLARZ. Now, let me just ask you finally. Do you think it would make any sense to have national, by which I mean Federal, high school or elementary school competency exams? [Laughter.]

Mr. CARNEVALE. You are supposed to be afraid of that and we aren't.

Ms. MCBAY. It would require an awful lot to put that together. I just think you would have so many different opinions about what would be included in it, but I think the professional societies and

lots of thoughtful people have already given some consideration to standards. So, maybe we could take a stab at it. But I'm not sure that I would leap to recommend that.

Mr. PACKER. This is a complex issue. I think one has to discriminate between assessment programs that we do have, like the National Assessment of Educational Progress and the "wall chart" that just came out, which are national standards that measure State programs, as opposed to national standards for individual students.

I think one of the things that Deming said about cars, applies to kids too. You cannot test in quality. We spend too much time in education testing the kids to see who we should screen out instead of looking at ways to improve educational quality. Tests become a fearsome thing. And I think that whole arena could use considerable attention, and it is a very tricky business.

Representative SOLARZ. Do most of the other OECD countries have central governments that play a much more active role in their elementary and secondary education systems?

Mr. PACKER. Oh, yes. The French system. At 11 o'clock on any morning the French Minister of Education can tell you what is going on in every school in the country.

I was in Dublin a couple of weeks ago at a European meeting. The European Community is trying to establish European-wide standards so an architect from Belgium can practice anywhere in the European Community and so forth.

CONCLUSION

Representative SOLARZ. Well, this has been very helpful and I do appreciate it.

We have a vote on. So, I am going to have to end the hearing.

Let me just say that if and when I introduce this bill and people start shooting at me from all directions, I am counting on all of you to stand up and be counted and provide some cover for me.

Ms. MCBAY. Well, we hope you will say when, not if and when, but when.

Representative SOLARZ. I am actually planning to do this, but there are a lot of details still to wrap up. I think our country needs it. I think if we are really serious about coping with the new challenges we face, we have to do something like this. I do not think it is going to be a panacea, but I think it is a necessary step in the right direction. And if we are not willing to do it, then we are going to unfortunately pay the price in terms of a gradual decline in the standard of American living, the role our country plays in the world, the preservation of our national values and our preeminence among the family of nations.

I know that the American people have always been willing to respond when they can see the nature of the threats they face. This is just as serious, perhaps not quite as visible, a crisis as the ones that have confronted us in the past. I think that we need to educate people about what is required to deal with these problems. But, obviously, the crisis is a very real one, and the handwriting is on the wall.

The question is whether we respond in bold and imaginative and creative ways, whether we continue to engage in ultimately futile and sterile and debilitating arguments here about the kinds of issues that we tend to get bogged down in.

So, I thank you all very much for coming. Thank you very much.

Ms. McBay. Mr. Chairman, may I just say that we are already paying the price. If you visit any inner city, you will see that we have already paid the price there.

Representative SOLARZ. Thank you. The committee stands adjourned.

[Whereupon, at 5:02 p.m., the committee adjourned, subject to the call of the Chair.]

AMERICAN ECONOMIC POWER: REDEFINING NATIONAL SECURITY FOR THE 1990'S

TUESDAY, MAY 8, 1990

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 2:01 p.m., in room B-352, Rayburn House Office Building, Hon. Stephen J. Solarz (member of the committee) presiding.

Present: Representative Solarz.

Also present: David Freshwater and Mark Forman, professional staff members.

OPENING STATEMENT OF REPRESENTATIVE SOLARZ, PRESIDING

Representative SOLARZ. The committee will come to order.

This afternoon the Joint Economic Committee examines the relationship between national security, energy needs, and the environment.

This is the fifth in a series of hearings on America's national security needs in the coming century. As we move from a period where defense is the leading component of national security to an era where the major concern is with economic security, it is important that the Nation examine the factors affecting its economic future. The focus of today's hearing is energy and the environment as national security interests.

In the 1970's and early 1980's, energy needs were of paramount concern. Even today, the mention of an energy crisis evokes the specter of gasoline shortages and spiraling energy prices. However, growing public concern with the threats to the environment has eclipsed our former preoccupation with our Nation's energy needs. We now recognize that just as energy supplies and prices are inextricably linked to other conditions and developments around the world, so too is the state of the environment.

Thus the future of the United States, and its economic security, will be influenced by decisions we and others make about energy and environmental policy. Our well-being depends upon a clean environment, but we should not pretend that preserving the environment will be cost free. In particular, we are increasingly aware of the tradeoffs between environmental protection and the development of reliable and affordable energy sources.

Reducing our dependence on foreign energy sources may require environmentally controversial actions, such as offshore drilling, increased use of coal, or nuclear power, as well as major efforts to

improve energy conservation. Similarly, reducing emissions that cause acid rain and higher levels of carbon dioxide will increase the cost of energy to both consumers and business. How do we balance these conflicting needs?

These and related issues are the topics to be considered today. This afternoon the Joint Economic Committee is pleased to hear from two panels of expert witnesses.

On our first panel we have representatives of the Department of Energy and the Environmental Protection Agency. They are Linda Stuntz, the Deputy Under Secretary of Policy, Planning, and Analysis of the Department of Energy, and J. Clarence Davies, the Assistant Administrator for Policy, Planning, and Evaluation of the Environmental Protection Agency.

After we hear from them, we will hear from two witnesses from the private sector. Jessica Tuchman Mathews, who is vice president of the World Resources Institute, and Alan Randall, a professor of resource economics and environmental policy at Ohio State University.

Ms. Stuntz, do you want to begin? Then, Mr. Davies, we will hear from you.

STATEMENT OF LINDA G. STUNTZ, DEPUTY UNDER SECRETARY FOR POLICY, PLANNING, AND ANALYSIS, U.S. DEPARTMENT OF ENERGY

Ms. STUNTZ. Thank you, Congressman Solarz. I appreciate the opportunity to testify on the subject of this important series of hearings, "American Economic Power: Redefining National Security for the 1990's." With your permission, I will submit my prepared statement for the record and briefly summarize it for you.

Reviewing the statements of previous witnesses who have appeared before the committee during this series of hearings, I was struck by the consistent focus of those witnesses on economic factors as key variables in the definition of U.S. security. We at the Department of Energy are especially cognizant of the role of energy, science, and technology in a vibrant and productive economy. We certainly are in full agreement with your view that the pace of technological change and current challenges to our historic world leadership in the development of new technology, require us to devote greater attention to the economic side of the security question.

The economic side of security encompasses in itself a wide range of issues, including trade and competitiveness, management of the ecological consequences of development, the availability of competent workers and the ability to achieve in mutually supportive ways national and international objectives in environmental, economic, and security policy.

The President has tasked Secretary Watkins with the responsibility to lead the development of a national energy strategy that examines energy options, taking into account these multiple economic, environmental, and competitiveness objectives. Because energy policy affects virtually every American producer and consumer as well as virtually every agency in the Federal Government, we have embarked upon an unprecedented public consulta-

tion process in order to promote the widest possible debate on the decisions that we face as a nation, many of which were outlined in your opening statement.

What we have learned thus far is that environmental objectives will substantially influence United States and international options to produce and use the energy required to fuel a dynamic world economy. At the top of the public agenda are protection of wilderness areas, cleaning up water pollution, and disposing of toxic and other wastes.

We would place the treatment of wastes, whether they are toxic, radioactive, solid or liquid, as the key U.S. environmental issue of the 1990's. Dealing with waste problems, the United States has the opportunity to demonstrate both economically prudent domestic action and international leadership.

Market approaches to environmental regulation where performance standards are set and industry is given the ability to select the most efficient control scheme we believe will reduce costs and bring about quicker and surer environmental benefits. The President's proposed acid rain control program is based on this approach. We are persuaded this approach will be economically and environmentally more efficient than past command and control policies.

As is the case with an increasing number of environmental issues, global climate change is by its very nature and terms international in scope. Response strategies require worldwide coordination, but in a manner that considers the uneven capabilities of nations to contribute to the response and the relative economic burden that each can assume.

To paraphrase from the Secretary's recent speech to the White House Conference on Science and Economics, the production and consumption of energy is a primary contributor to greenhouse gas emissions worldwide and is at the center of a number of other environmental issues. Yet, energy is also the primary contributor to worldwide economic growth and development.

If we are to achieve economic growth in an environmentally sound fashion, we must develop and display energy technologies that contribute to our global stewardship. It is unlikely that developing nations and the emerging Eastern European democracies will be able, by themselves, to mobilize the resources necessary to address both their existing environmental problems which, as we are observing with the crumbling of the Iron Curtain, in many cases are quite severe, and invest in technologies and practices which minimize the buildup of greenhouse gases in the atmosphere.

One thing is clear. If foreign aid is to be provided to assist these nations, multilateral approaches will be required.

Let me now turn briefly to a number of the other specific questions which you asked us to address.

First, petroleum and national security. With U.S. oil imports increasing dramatically, our 1990 imports are projected to account for about 44 percent of our consumption. Persian Gulf nations will supply about 2 million barrels per day or more than one-quarter of the projected 7.7 million barrels per day that we will be importing.

Present trends in domestic oil production—which is substantially falling—and demand, virtually assure higher levels of import de-

pendence in the coming years. Lower cost oil imports provide economic advantage to the United States if competitively priced domestic oil is not available. On the other hand, dependence by the United States and its allies on sources that have been historically volatile and the almost certain expectation that world oil production will be increasingly concentrated in four or five countries in the Middle East warrant our careful consideration of dependence on imported oil both as a matter of strategic security and as a matter of economic security.

As part of the national energy strategy development, the Department is examining a range of oil supply and demand options, including various forms of energy taxes. Our initial review of such tax measures indicates that all these taxes would, to varying degrees, reduce energy use, but they differ greatly in terms of macroeconomic effects and in terms of the burden that would be borne by different consumers and regions of the country.

In general, our bias is toward user fees which help compensate for demonstrated market failures, such as the failure of market prices to properly or adequately reflect externalities associated with supply security or with environmental effects, as against broad based consumer taxes.

Other options to reduce oil imports include incentives for increased domestic production, improved technologies, such as infill and horizontal drilling, and exploration of the Outer Continental Shelf and other frontier areas. The environmental value, as Congressman Solarz suggests, of some of these areas may be such as to suggest indefinite postponement of development. It would be prudent nonetheless, we believe, to permit at least an assessment of the resource base in those areas in order to know what is there.

If a national decision is made to forgo any given energy option, whether it is oil and gas from the Outer Continental Shelf or nuclear power or coal generated electricity, then the alternatives available to fuel our economy and maintain our competitiveness in the future become correlatively narrower. Conservation and energy efficiency measures offer promising options, and we will pursue those aggressively, and so do renewable fuels and other potential technologies, such as electric vehicles and mass transportation systems.

Each of these options, however, has pluses and minuses from the perspectives of economic security and environmental factors. Even with aggressive efforts to pursue alternative fuels, the Nation's dependence on oil, especially for transportation, will continue into the next century. This will translate into reliance on transportation of oil by ships. Current U.S. laws and regulations are not adequate to cope with oil spills. We need revisions to ensure a strict compensation system and appropriate high liability limits, in order to assure that polluters are held responsible for cleanup.

Let me now turn to nuclear power. We believe that in order to meet future demand for electric power, which is expected to grow with economic growth, unlike other energy sources which tend to be growing at a slower rate, neither the United States nor other nations should foreclose any technology option. We view nuclear technology as an essential contributor to the energy mix and a potentially critical contributor to environmental objectives.

I would note parenthetically that this past February, a record 24 percent of U.S. electricity was generated by nuclear power plants. These plants were operating at record 76 percent capacity factor. We would suggest that those who would foreclose that option think about the effect on emissions in the air and otherwise if that component of our electricity sector was not there.

The future viability of nuclear technology will depend on several factors, including minimization and safe disposal of radioactive waste, improved and less costly reactor designs, a certification of new, demonstrably safer reactors, and perhaps most importantly, it will depend on our ability to demonstrate to a doubting public that we can competently manage the technology.

In conclusion, let me state the view of many of the witnesses previously before you that national security is defined by American economic power. We believe that the Department of Energy and its national laboratories will be able to contribute demonstrably to the science and technology aspects of our economic productivity.

This concludes my remarks, and I look forward to your questions.
[The prepared statement of Ms. Stuntz follows:]

PREPARED STATEMENT OF LINDA G. STUNTZ

Mr. Chairman, I appreciate the opportunity to participate in the Committee's timely exploration of the role that energy and environmental policies will play in shaping national security considerations in the 1990's and beyond. The unprecedented changes that have occurred in Europe's and Latin America's political landscape should confirm our thinking about the relationship between political freedom and human achievement. We have seen demonstrated that economic misery translates into environmental abuse, and that policies that are inimical to personal well-being will not long sustain a viable society.

American economic power has historically sustained our military might as well as our ability to address the environmental consequences of our national development. We have been most successful when we have been willing to invest in knowledge. Science and technology have defined the American character in the last century and will define our future, if we are able to nurture the great capacity for creativity and innovation that people possess when they are free.

As one of the Federal government's premier science and technology departments, we view energy and environmental issues as opportunities for beneficial change rather than insurmountable

problems. Our national security could very well be defined by our ability to develop new technology and manage it with competence.

Mr. Chairman, you have asked us to address a number of questions that might define the nature of problems we, as a Nation, are confronting. These questions, and others, have preoccupied the Department of Energy in recent months as we seek to develop a National Energy Strategy (NES). One of the principal differences in scope between the NES and previous energy plans is the integration of environmental, economic and energy policy, that we believe is essential to achieve.

The National Energy Strategy we are building will provide a frame of reference for the United States to examine its energy options, taking into account their real and potential effects on the environment, on national security, and on the economy. A comprehensive assessment of these options, as part of a unified strategy, should give us the means to avoid piecemeal erosion of a secure energy foundation.

The energy policies of the 1990s will need to serve multiple objectives. More often than not, the success of a policy will

depend upon coordinated action across national borders. Environmental objectives will substantially influence the energy supply options used by the U.S. and others to produce and use the energy that will be required to fuel a dynamic world economy.

Environmental Policy and National Security

The public consensus for environmental action is neither unconditional nor generic. A recent survey conducted by Cambridge Energy Research Associates/Opinions Dynamics Survey found that "...some of the issues with the most sweeping implications for energy policy - global warming, acid rain, and nuclear waste disposal - do not rank high among the national priorities that the public is willing to spend money to resolve." The survey found that the public placed greater importance on protection of wilderness areas, cleaning up water pollution, and disposing of toxic waste and chemicals. The survey also found that a majority of Americans are willing to compromise on some environmental issues in order to reduce dependence on foreign oil.

We would place the treatment of wastes (toxic, radioactive, solid and liquid) as the key U.S. environmental issue of the 1990s. To deal with our waste problems, the United States will rely on technology that has largely been developed domestically, and on a

regulatory regime that harnesses market forces to achieve environmental goals in the most cost-effective way.

Economic security would be jeopardized by government strategies that would impose such high costs on commerce and industry as to render the U.S. internationally uncompetitive. By the same token, U.S. leadership in providing answers to global waste problems could inspire action by other nations and provide opportunities for trade in knowledge and technology. Other nations, particularly the emerging democracies of Eastern Europe, have pressing air and water pollution problems in addition to waste problems.

The regulatory policy chosen to manage environmental issues is a key determinant in how addressing such issues affects the economy. We have in the past used command and control regulatory approaches that frequently have imposed economic burdens without providing expected environmental results. Market approaches to environmental regulation, where performance standards are set and industry is allowed to find the most efficient control scheme, reduce costs and generally bring about quicker, greater environmental benefits. The latest example of this is the President's proposed acid rain control program.

GLOBAL CLIMATE CHANGE

Notwithstanding the immediacy of air/water pollution and waste problems in the U.S. and in other nations, the potential for global climate change is capturing increasing policy attention. As is the case with an increasing number of environmental issues, global climate change is, by its very nature, an issue of international dimensions. Response strategies need to be coordinated on a world-wide basis, but in a manner that considers the disparate capabilities of nations to contribute to such strategies.

The share of energy-related global CO₂ emissions from developing countries is expected to grow significantly in the future. In 1986, the developing world, including the newly industrializing countries of the Pacific Basin, accounted for 30 percent of global fossil fuel emissions. In contrast, the Organization for Economic Cooperation and Development (OECD) nations' share in that year was approximately 45 percent, and the Soviet Union/Eastern Europe share was 25 percent. In 2025, those shares are projected to change to approximately 48 percent for the developing world, 36 percent for the OECD region, and 17 percent for the USSR and Eastern Europe. The actual share of emissions from various regions is uncertain and will depend on such things

as the success of restructuring in Eastern Europe, and on the nature and relative rates of economic growth.

There are many uncertainties about the likelihood of global climate change, its magnitude, the pace at which it might occur, and the consequences of change to different nations and regions. The United States is leading in the conduct of scientific, environmental, and economic research, in support of the work undertaken by the Intergovernmental Panel on Climate Change. The U.S. budget for global climate change research for FY 1991 is more than \$1 billion, an increase of nearly 57 percent over FY 1990. The Department of Energy alone proposes to devote \$66 million to research that will improve our understanding of how the climate changes and why.

While we are investing heavily to obtain new knowledge, we are taking actions to reduce net greenhouse gas emissions where justified on other environmental, energy and economic grounds. We support the worldwide phase-out of CFCs and halons by the year 2000 where safe substitutes are available. This phase-out will eliminate greenhouse gases that currently comprise about 17 percent of total man-caused radiative forcing. Improved efficiency for refrigerators and freezers, obtained from the

implementation of our regulatory program, is estimated to reduce CO₂ emissions by an estimated 10-12 million tons annually by the year 2000.

Improved lighting for Federal and commercial buildings, the adoption by States and local authorities of Integrated Resource Planning and of voluntary Federal building standards, will reduce the need for electricity, and, hence, CO₂ emissions. The President's five-year tree planting program will annually sequester an estimated 66 million tons of CO₂ by the year 2000. If this planting effort were continued for 20 years, it would annually sequester an amount equal to 5 percent of current CO₂ emissions.

In addition, the acid rain and alternative fuels provisions in the President's proposed Clean Air Act Amendments would provide CO₂ reduction benefits estimated at over 60 million tons per year, largely because of the way those proposed amendments would encourage energy efficiency. Additional CO₂ reduction could be achieved if we, as a Nation, allow hydropower to reach its full potential in balance with environmental values. And, finally, a

great deal of benefit will be derived both at home and abroad from increased investment in renewable energy technology research, development, and use.

Some people believe that developing nations and the emerging Eastern European democracies are unlikely to be able to, on their own, mobilize the resources necessary to both address their existing environmental problems - air and water pollution, toxic contamination, deforestation and soil erosion - and invest in climate change mitigation action. This is an issue which has yet to be resolved. One thing is clear, if foreign aid is to be provided for this purpose, it should be multi-lateral.

No single country can meet all the needs of developing countries, nor would such massive unilateral assistance be desirable from an international trade perspective. Multi-lateral support will be required if developing nations are to be fully engaged in climate change policy development and implementation.

It is equally clear, however, that developing Nations have the responsibility to adopt policies that will use financial assistance most effectively, and that will promote the most efficient use of their current energy resources. Economic

liberalization, free trade, and protection of intellectual and technology property rights will be key factors in the emerging environmental relationship between developed and developing Nations.

PETROLEUM AND NATIONAL SECURITY

U.S. energy security problems have historically been associated with dependence on oil imports from potentially unstable regions of the world. In 1989 our net imports represented 41 percent of the oil we consumed, up from just 27 percent in 1985. Most of this oil came from U.S. neighbors but increasing amounts are from the Middle East. Our net 1990 imports are projected to rise to 44 percent of consumption, with the Persian Gulf supplying about 2 million barrels per day (MMBD) of the 7.7 MMBD that will be imported.

Present trends in domestic oil production and demand virtually assure that even higher levels of import dependence will characterize the 1990's. It should be noted that the availability of lower cost oil imports provide economic advantages if competitively priced domestic oil is not available. Nevertheless, viewed from the perspective that most future excess

oil production capacity available to the U.S. and its allies will be in volatile areas of the world, these trends pose challenges that need to be considered.

Changes in the oil market, in our emergency preparedness, and in political conditions over the last decade have substantially reduced our vulnerability to oil supply disruptions. The U.S. now has a large Strategic Petroleum Reserve that will grow to the 750 million barrel target level by 1999. Other major oil consuming nations also have large, government-controlled stockpiles. In addition, a number of OPEC nations have invested in refining facilities in consuming countries. These "downstream" investments reduce the likelihood of politically inspired embargoes or other production cutbacks.

Many OPEC producers with substantial reserves have stated their belief that the maintenance of stable oil prices is the best means of protecting the market for their oil in the longer-run. Others within OPEC, those producing closer to full capacity, continue to argue for higher oil prices today as the best way to maximize oil revenues over the expected life of their reserves.

As OPEC gains a greater percentage of the world market share in the 1990's, the concern over production sharing (large volumes of oil chasing too small a market) that dominated OPEC's deliberations in the past several years is likely to recede. Market power within OPEC will increasingly be concentrated in the hands of those few key producers with surplus capacity.

The issue for the United States is at what level does dependence on Persian Gulf suppliers pose unacceptable represents strategic security issues, or can oil trade be viewed in straightforward economic terms. In either case, options to reduce overall American consumption of oil can be evaluated and exercised if they are responsive to U.S. interest.

As part of the process of developing the National Energy Strategy, the Department of Energy is examining a broad range of energy policy options including various forms of energy taxes. As this Committee is aware, each of these measures has different costs and benefits, and needs to be evaluated within the broader context of impacts on the economy.

The Administration has opposed new taxes and tax increases. Past studies have indicated energy taxes are counterproductive.

Nonetheless, as you point out in the questions you distributed for this hearing, a number of suggestions have been made that the United States should raise taxes on energy use. We have seen this interest demonstrated in comments we received on the National Energy Strategy. Parties favoring tax increases maintain that taxes and user fees are effective ways to reduce energy consumption and pollution and thus have environmental and energy security advantages. Parties opposed maintain that taxes and user fees are unnecessary, unfair, and counterproductive. Given this interest in taxes and user fees, we will consider them as part of the National Energy Strategy development process.

Our review to date of possible energy taxes illustrates the inherent conflicts among the goals of energy security, environmental quality, economic efficiency, and distributive equity. All of the taxes would, to some degree, reduce energy use. Existing studies indicate, however, that such taxes would need to be relatively high in order to have a significant effect on consumption. All have some environmental benefits, although the nature and extent of these gains vary from one measure to another. The taxes differ greatly in their contribution to energy security. There are also significant differences among the measures in their macroeconomic effects, and in the incidence

of the tax burden. Virtually all energy tax measures, however, are regressive to some degree in the sense that low income families are likely to incur a larger cost, relative to their incomes, than are higher income families.

Another option available to reduce energy imports is to encourage greater domestic exploration and development. A number of our most promising remaining oil and gas deposits, however, are located in environmentally sensitive areas, or in areas that have been designated as wilderness.

Environmental concerns have always played a major role in decisions regarding exploration and production of oil and gas in new frontiers. Last year's oil spill in Alaska's Prince William Sound (although a transportation rather than an exploration or production incident) has intensified these concerns.

The potential benefits from opening new areas to domestic oil and gas exploration and development are many: reduced reliance upon imported oil, increased energy security, and benefits to the U.S. economy. However, in some cases the value of environmentally sensitive areas may be so high that they should be left undeveloped, at least until new technology and management ability

is available to reduce the environmental risk posed by oil and gas production.

There are options available in between these two extremes. It is critical that decisions on these important matters be grounded in scientific and technical data, including the relative risks to the environment of alternative sources of supply. In addition we should at least be able to assess what our resources are, and define the value of foreclosing their development, so that we will be able to plan for their use, should circumstances require.

If a national choice is made to forego domestic oil and gas development, then the alternatives are narrowed in terms of meeting future energy demand. Conservation and energy efficiency measures offer promising alternatives, as do cost-effective development and use of alternative fuels, new energy supply technologies, and technologies that increase oil recovery in existing fields.

Turning to the highly visible issue of oil transportation, current U.S. laws and regulations are not adequate to cope with oil spill incidents. We need revisions to the current law to ensure that there is a strict compensation system, with high

liability limits, to make certain that those responsible for oil pollution will be held responsible for the cost of cleanup. We also need to provide for enhanced tanker transportation safety.

The Congress is currently considering legislation that creates a comprehensive oil pollution liability and compensation system, including both prevention and response. We believe any revisions to current law should reflect the philosophy that spillers are initially and primarily responsible for cleaning up oil spills. We, therefore, would be concerned about any legislative provisions that appear to place initial responsibility for responding to an incident on the Federal Government, rather than on the spiller.

Both Houses of Congress are currently considering new requirements for oil tanker construction. The Administration prefers the Senate bill and supports double hulls on newly constructed tanker vessels, unless the National Academy of Sciences (NAS) determines that significant safety concerns would be raised, and the Secretary of Transportation concurs in such a determination. We would modify the Senate provision to provide for a rulemaking that would allow the Department of Transportation to assess whether double hulls for existing ships

would enhance navigational safety or whether greater protection could be achieved by other structural requirements.

The Role of Nuclear Power

Demand for electricity, unlike demand for transportation fuels, has kept pace with U.S. economic growth. Even with expedited achievement of greater energy efficiency, we will require new electric generation capacity in the next decade and beyond. We believe it is essential not to foreclose any technology option to meet the demand for new electricity generation capacity. This is particularly true of nuclear technology, which we view as an essential contributor to the world-wide energy mix. I would note that in February 1990, 24 percent of the nation's electricity was nuclear generated. This record contribution was due, in part, to a 76 percent nuclear plants capacity utilization, and was obtained with no significant emissions of CO₂, SO₂, or NO_x.

The future viability of nuclear power will depend on several factors. First, improvements will need to be made in the management of this technology. Secondly, nuclear waste will need to be minimized and disposed of in a safe and environmentally acceptable way. The Monitored Retrievable Storage (MRS) facility for spent fuel - prior to the availability of permanent geologic

disposal - will be especially important to utilities and regulators as they consider new nuclear power projects. Thirdly, improved and less costly reactor designs will need to be available. DOE hopes to obtain NRC certification for a 1300 MWe advanced light water reactor by 1992, and for a simplified 600 MWe Advanced Light Water Reactor by 1995. NRC certification for the modular, high temperature gas reactors (140 MWe) and for the liquid metal reactors (155 MWe) should be available after 2000.

CONCLUSION

Mr. Chairman, I would conclude by rephrasing the title of these hearings: National security is defined by American economic power. We believe that the considerable scientific and technological resources contained in the Department of Energy and its national laboratories can likely find solutions to the energy and environmental problems that face this Nation. We also need to maintain a strong and diverse private sector which has the incentives to invest in R&D and in energy development. We hope that our national strategy will help refine the options available to the American people.

Mr. Chairman, the understanding of these complex issues can best be obtained through sustained discussion and debate, as you have done with these hearings. An informed national constituency will be less likely to foreclose reasonable policy options and to better understand the scope of the choices that are required to support our economic life.

Representative SOLARZ. Thank you.
Mr. Davies, please proceed.

STATEMENT OF J. CLARENCE DAVIES, ASSISTANT ADMINISTRATOR FOR POLICY, PLANNING, AND EVALUATION, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. DAVIES. Thank you, Congressman SOLARZ. I will also try to summarize my prepared statement briefly. You asked two questions about what are the major domestic and international problems. In response, I am somewhat resistant to making that distinction because as we learn more and more, the world, for various reasons, becomes more and more interdependent, and that holds true for environmental problems as well. The line between domestic and international problems is a pretty blurry one at this point.

I would, therefore, suggest that maybe we could take a different slice at it. It seems to me that one of the major challenges we face is to take a more holistic view of the kinds of environmental problems we face. And I think we are coming to that in part because we have discovered that the failure to do so has resulted in serious mistakes in the past.

It is not too much of an exaggeration to say that in the past most of the pollution control efforts in this country and elsewhere have operated as if the law of conservation of matter has somehow been repealed or superseded at least by the air-and-water laws. If you got rid of a pollutant in one medium, then you did not have to worry about what happened to it somewhere else. We are learning that that is not true, that if you do not control all the sulfur dioxide that comes out of a stack, you better worry about what happens to the remaining amount. And the amount that you take out with a scrubber and put in the sludge may cause you trouble somewhere downstream as well.

So, I think taking that more holistic view and looking at problems and tackling them in that more holistic way is something that we have learned with difficulty, learned the hard way, but I think we are beginning to do that both in terms of global cycles like carbon, which we are forced to begin to understand not out of some idle scientific curiosity but because there are very important stakes riding on the answers, but also in terms of more localized phenomenon.

We are, for example, wrestling with the problem of lead and have been wrestling with it for a long, long time. But I think we have come to understand that, especially when dealing with things like heavy metals which do not disappear from the environment, you had better take a coordinated, integrated view, figure out what are the major sources, where is it going, how does it cycle through the environment, what are the chemical transformations, if any, that occur, and then figure out where you want to intervene in those cycles and how you want to protect the public looking at all forms of exposure.

The other major problem is how to get sustainable development in a realistic way. The term "sustainable development" has been used by all kinds of people in all kinds of ways, but I think it does have real meaning. In particular, I think it means that for both de-

veloping and developed countries, what we have to do is inculcate a sensitivity to environmental concerns in the whole range of decisions that a society takes.

I have told my people within EPA and various other groups as well that if you look at where the payoffs, in terms of environmental quality, are going to come, even in the near term, they are probably more likely to come from changes in energy policy, changes in agricultural policy, and so on that they are from any direct command and control regulations issued by the Environmental Protection Agency.

What that says to me is that the real payoffs are in achieving sustainable development, getting an attitude of sustainable development, if you want, that says when we make economic decisions or agricultural decisions or transportation or land-use decisions, we have to think about the environmental consequences of those kinds of decisions, and we have to do that early on and up front. Only by doing that are we really going to get on top of the environmental problems we face. Let me turn to a few of the other questions you asked. You asked about the greenhouse problem. I am sure we may return to that in the question period.

I would say a couple of things. One, as I indicated in my prepared statement, the posture of the administration is not that we do research and do not take action until the research is done. The administration and the President himself has made it quite clear that those actions which can be justified on other grounds, but which help in the reduction of greenhouse gases, are things that ought to be done now, and in fact they are being done in a fairly impressive scale. The President's reforestation initiative, the energy conservation initiatives that DOE has put out, the provisions of the Clean Air Act, all of those things are going to have a significant impact on emissions of greenhouse gases.

In fact, if you try to calculate the impact on greenhouse gas emissions, our rough calculation is that they result in about a 15-percent reduction in such emissions over the next 10 years or so. That is a rough cut figure which we are, frankly, trying to refine more precisely. But I think it does indicate that the administration's posture is not one of inaction. It is one of doing reasonable actions now at the same time that we learn more about the problem.

You asked about CFC's as well. I think the one point I might make about the CFC issue is that, as with the global warming issue, a major dimension is going to be the international dimension. In effect, with respect to CFC's, it seems to me that the major problem now, the major question mark as to how much progress the world is going to make, lies not in whether or not we can get agreement among the developed countries, but rather to what extent we are going to get the developing countries to go along with whatever agreement is reached. China and India and a number of other important developing countries are not signatories to the Montreal Protocol, and that I think is a key question that lies ahead in that area.

Let me stop there, and I will welcome any questions.

[The prepared statement of Mr. Davies follows:]

PREPARED STATEMENT OF J. CLARENCE DAVIES

Good afternoon, Mr. Chairman and Members of the Committee. I am Terry Davies, Assistant Administrator for Policy, Planning and Evaluation at the U.S. Environmental Protection Agency (EPA) in Washington, D. C. Thank you for the opportunity to address several stimulating questions you've raised related to our environmental policies and national security. I will try to outline my response to some of them.

You ask two questions related to what are the two most important environmental problems facing the United States and the world. In responding, I do not want to make a sharp distinction between United States and world problems because, increasingly, domestic problems are inseparable from international ones. Environmental problems over the last twenty years were viewed as fundamentally national problems. Ones we could fix alone. Many of the continuing environmental problems before us, however, are problems of international consequence and cannot be addressed by the United States alone. Ozone depletion and acid rain, for example, are not only challenges we must commit to as a nation, but also which we must address as a global community.

I would suggest that there are two very important environmental problems which cut in different directions and which pose challenging international and national challenges for us. First, is the problem of human-induced pressure on the global environment. Today, we recognize that much of the stress on the global ecosystem is created by pollutants emitted by countries hundreds of miles from our shores. People everywhere now recognize the complex links between population growth, energy use, deforestation, waste disposal and problems ranging from degradation of the ozone hole to ocean pollution. We have learned that we have interfered with, over the past 100 years or so, the global cycle relating to basic elements such as carbon -- hence, creating an imbalance in carbon dioxide and a potential global climate change problem. As another example, we have intruded into the natural cycle involving sulfur, creating an acid rain problem.

We need to understand the nature of such cycles and their vulnerabilities. Such a holistic view is difficult, but failure to take this type of integrated approach will lead to intervention that creates problems rather than solves them. We have got to align our policy approaches with the realities of the natural world.

The second major problem is sustainable development--the need to integrate environmental awareness into every sector, whether it be farming, transportation, or energy. Sustainable development was

defined in a 1987 World Commission on Environment and Development report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This is a general definition, yet one with far reaching implications.

Movement toward the goal of sustainable development requires a much closer linkage between economic development decisions and their implications for long-term maintenance of the environment. If we are to meet the goal of not compromising the ability of future generations to meet their needs, maintenance of the environmental support structure must be an integral consideration in economic planning.

Sustainable development implies a far longer range perspective for setting goals and assessing impacts of our program actions than we are used to. This has implications for our work in planning, monitoring and forecasting, and research. It has implications for all sectors of our economy--transportation, energy, agriculture.

Sustainable development is not just a third world, developing country issue. The environmental future of the United States and every other nation depends on the ability to develop on a sustainable basis, and to incorporate environmental quality and resource protection as an integral part of all major decisions.

Environmental quality has got to be a concern of every federal agency, every state agency, every major firm.

You specifically asked about the greenhouse problem. The greenhouse phenomenon is the process by which certain gases in the atmosphere trap energy and thereby cause the earth's temperature to increase. It is a problem that involves several gases: CO₂, CFCs, Methane, N₂O. Each of these gases has different potency and lifetime in the atmosphere, and comes from a variety of sources. Currently many scientists believe that for an equivalent doubling of greenhouse gases that global temperatures would increase between 1.5° and 4.5°C. There is uncertainty concerning the exact magnitude and timing of the problem, the damages, and the costs and other consequences of acting to fix the problem. However, neither the United States nor other countries will be able to wait for total enlightenment to inform our policy decisions. We need to act now, in the face of inconclusive information...in the face of uncertainty. We are responding to this need and to these uncertainties by taking actions now that are both prudent and effective. Administrator Bill Reilly outlined six steps of action at the April White House Conference on Science and Economics Research Related to Global Change. Briefly summarized, they are:

- We must work together. No one country is alone and none of us can effectively address global climate problems apart from the others. Consequently, we are actively contributing to the international collaboration efforts as a high priority.

- We are devoting substantial resources to strengthening the science of climate change and to broadening our knowledge of the economic impacts. Clearly, sound science is critical to future decisions related to climate change. It is also critical that the many consequences associated with global change are fully understood and accounted for.

- We have learned valuable lessons about how to put together an international response to a global environmental issue through our efforts to protect the stratospheric ozone layer and we will pay attention to them as we move forward.

- We are moving forward on President Bush's proposal for a major reforestation initiative.

- We want to move forward on a stronger Clean Air Act consistent with the Administration's proposal.

- Finally, we are pursuing with other federal agencies a variety of energy conservation initiatives, all of which are important in eliminating greenhouse gas emissions.

These activities represent some of the ways we are addressing the global climate problem. Some of your questions were directed at examples of other possible solutions to future environmental problems. As I've noted, future environmental problems will become increasingly complex to solve for a number of reasons. For two decades EPA has relied heavily on command-and-control regulations

to address environmental problems. These involve setting and enforcing pollution standards for industrial facilities, defining acceptable work practices, and specifying emission standards for many types of consumer products (e.g., automobiles). This approach has been effective--but it must be complemented with additional approaches which are more able to address the environmental consequences of more dispersed and difficult to identify activities.

Market-oriented approaches to control offer effective opportunities in this regard. Not only can they potentially affect activities that would be extremely intrusive to affect with traditional forms of regulation, but they can substantially reduce control costs. Under command-and-control regulation, government must decide which controls to install and who must install them. Because of government's limited access to cost information, this inevitably results in overcontrol for some firms (whose costs of control are high) and undercontrol for others (where costs of control are low). When market incentives are used, these decisions are made by industry, which has better cost information and has strong incentives to control the cheaper sources of pollution before the more expensive ones.

Another approach to complement our command-and-control decisions are incentive-based decisions. Incentive-based policies seek to influence but not to dictate the actions of the targeted

parties. These policies work by creating or enhancing private and public incentives to take actions that protect and enhance the environment.

Incentive-based policies are also consistent with the polluter pays principle. Adopted by all OECD countries in 1975, this principle states that the polluter should be charged with the costs of whatever pollution prevention and control measures are determined by the public authorities. Incentive policies, including fee approaches, can be an important tool in ensuring that polluters pay for the full costs of cleanup.

For the last twenty years, the United States has been a leader on environmental issues and we will continue to maintain this leadership. As the environmental problems change, and our response to them necessitates greater use of innovative approaches, greater interaction among federal agencies, and greater involvement at the international level, we will meet these challenges.

You have also asked about EPA's views on oil and gas exploration in environmentally sensitive areas. While the Secretary of the Department of the Interior has the final authority for most oil and gas leasing decisions, the EPA has reviewed Environmental Impact Statements (EIS) for oil and gas lease sales

in the Arctic National Wildlife Refuge, offshore of the coast of Southern California, and offshore of the Carolinas under the authority of the National Environmental Policy Act and Section 309 of the Clean Air Act. In the case of the Arctic National Wildlife Refuge EPA reached agreement with the Department of the Interior (DOI) which requires that an EIS be prepared at each stage of the process to identify the impacts and develop appropriate mitigation. The current lease sales offshore of Southern California are part of the President's Outer Continental Shelf Task Force review, and the President has not made a determination on whether or how to proceed with leasing in this area. A protective buffer zone has been established off the coast of North Carolina where exploratory drilling is proposed. EPA's comments on the EIS identify the deferrals, deletions, protective buffers, and protective stipulations that we believe that the Secretary must include in the lease to ensure protection of the environment. EPA continues to work effectively with DOI to resolve many concerns about oil and gas leasing and development.

This concludes my prepared testimony. I would be happy to address any questions.

Representative SOLARZ. Thank you very much.

THE TWO MOST IMPORTANT ENVIRONMENTAL PROBLEMS CONFRONTING
OUR NATION AND THE WORLD

Let me ask you what you would say if you had to choose among the many environmental problems we face, what are the two most important environmental problems confronting our own country and the two most important environmental problems confronting the world? They may be the same or they may be different.

Mr. DAVIES. Well, I would rank the global problems, particularly stratospheric ozone depletion and potentially the global warming problem.

Representative SOLARZ. Global warming is the flip side of the ozone layer problem?

Mr. DAVIES. No. They are related in some indirect ways, but they are essentially two distinct problems.

The problem of stratospheric ozone depletion involves the reduction of the ozone shield in the upper stratosphere and that shield protects us from ultraviolet radiation coming down. So, the main problems that result from a deterioration, a chemical deterioration, of that ozone protective layer is increased ultraviolet radiation which results in a significant number of increased skin cancers and a number of other changes, a lot of which are not totally predictable.

So, that is one problem, and that is distinct from the warming problem which is a matter of not all the heat that comes down through the atmosphere going back up off the Earth. Some of it is held there by the layer of gases that constitute the atmosphere. So, you have a certain amount of warming, which is necessary for life on Earth, which is created by the so-called greenhouse effect. It is the same general phenomenon as you get in a greenhouse where not all the heat that comes in through the greenhouse goes back out. So, you have a rising of temperature inside the greenhouse.

The problem in terms of global warming is the possibility, which is debated, but the possibility that because of adding carbon dioxide and a number of other gases to the atmosphere, we are trapping more and more of the heat in the Earth.

Representative SOLARZ. Does the depletion of the ozone layer contribute to the global warming effect?

Mr. DAVIES. I should warn you that I am a political scientist by training, so you may be stretching my scientific knowledge here. And, Linda Stuntz, I would welcome your help if you can.

Ms. STUNTZ. We both have the same background.

Mr. DAVIES. My recollection is that in fact upper level ozone is itself a greenhouse gas and therefore in general the two things work against each other.

Representative SOLARZ. I do not want to take you out into uncharted waters here.

Mr. DAVIES. I can provide a more authoritative answer for the record.

Representative SOLARZ. In any case, you are saying the two most serious global environmental problems are the depletion of the ozone layer and the greenhouse effect.

Mr. DAVIES. And the greenhouse effect—I must stress that there is scientific uncertainty. So, it is not clear whether it is a problem or not, but ascertaining whether or not it is, is at the top of the agenda. Yes.

Representative SOLARZ. What would you say are the two most serious environmental problems confronting our own country? They could be the same ones.

Mr. DAVIES. Yes. I would put them at the top of the domestic agenda as well. There clearly are more strictly domestic problems which would have to rank very high.

EPA did a study a couple of years ago titled "Unfinished Business" which attempted to rank all of the environmental problems on the basis of several dimensions—health effects, welfare effects, and so on. The Science Advisory Board of the Agency has just completed a review of that report, and for the most part it held up pretty well. There were a few changes.

Representative SOLARZ. What did it show?

Mr. DAVIES. Things that were on the top of the list coming out of that report were pesticides, indoor air pollution, radon, nonpoint source water pollution, criteria air pollutants, those five.

IMPACT OF ENVIRONMENTAL PROBLEMS ON ECONOMIC SECURITY

Representative SOLARZ. What impact do these environmental problems, particularly the two big ones you mentioned, the ozone layer and the global warming effect, have on our economic security?

Mr. DAVIES. Well, there has been a lot of debate, and more debate than research I am afraid, in terms of what the likely effects would be of global climate change. Again, EPA has issued a fairly lengthy report on the effects of global climate change, but it is not by any means exhaustive and it is not clear really what the economic effects will be. In fact, in some ways it is not clear what the direction of economic effects will be. There is at least one school of thought that says there will be winners, as well as losers, with respect to climate change, and that Russia, for example, may have a net gain economically and in other ways.

In terms of the economic effects, they are likely to be primarily through impact on agriculture, including forestry. There is a possibility that there will be major climate changes that go with the warming such as increased drought, increased extremes of temperature, more severe storms, and things of that kind.

Representative SOLARZ. Would it be fair to say that to the extent that the global warming effect can be mitigated or the worse case consequences avoided, that we cannot do it by ourselves, it would require global action by all countries, but that without our participation in such a program, it could not succeed? Or could it succeed without our participation?

Mr. DAVIES. Well, success or failure is difficult to define in this area, but there is no question that what makes both potential global change and stratospheric ozone depletion global problems is that, yes, they do depend upon the actions of other countries for a significant impact to occur on CO₂ emissions. At the moment, the United States is responsible for slightly under 25 percent of green-

house gas emissions. That is going to decline fairly markedly over the next few decades. And an increasing amount of the emissions will be from China, India, and other developing countries. We have the same kind of situation with respect to CFC's.

So, in both those cases, yes, action by the United States has to be part of any solution, but unilateral action is not going to successfully deal with the problem.

Representative SOLARZ. So, we are a necessary but not sufficient part of the solution.

Mr. DAVIES. I think that is fair to say.

USER FEES

Representative SOLARZ. Now, Ms. Stuntz, you mentioned that the Department was reviewing various kinds of energy taxes in order to assess their impact both on energy consumption and conservation, as well as the economic impact. I would like to mention a number of different possibilities and get your reaction to them. At least, perhaps you could think aloud a little bit.

But before I get into that, you said the administration's preference was not for—I think you characterized them as broad-based consumption taxes—but for user fees. What do you mean by user fees in the area of energy? I assume a gasoline tax you would consider a consumption tax, and you say a user fee is better. What are user fees in this area?

Ms. STUNTZ. Well, let me say, for example, the Atlantic Council, which is a nonprofit group supported by industry, academia, and others, came before one of our National Energy Strategy hearings and made a proposal for what they called a user fee. It was, in essence, a gasoline tax, but it started out at a very low level and was phased in over a number of years. It basically represented their estimates of the way the market currently underprices gasoline.

Now, there is a lot of disagreement about that. We had a lot of people that came to us and said we do not think we are paying too little for gasoline. We would be very unhappy if we had to pay more. It would affect, obviously, industries that depend upon transportation fuels.

In general, what we are trying to say is there may be areas where the market is not currently reflecting the actual costs of energy, whether it is gasoline, or whether it is the cost of securing supplies of imported oil; either because of the cost to secure the supply or because of environmental externalities. That is usually the example economists use.

We would and are trying to take a careful look at quantifying those externalities—there is a lot of work being done in this country and throughout the world—and internalizing those things in the cost of energy. That is the sort of approach we think is better to take than to simply say, well, let's do a Btu tax or something that really is a baldfaced revenue raising measure without any attempt to determine what market imperfection it is you are trying to correct.

Representative SOLARZ. Doesn't government have a need to raise revenues from time to time?

Ms. STUNTZ. Yes, it does.

Representative SOLARZ. Supposing a judgment is made that the Government needs revenue for certain purposes, energy taxes I presume are one way to approach that. You are saying that what? That we should be mindful of the economic consequences of it?

Ms. STUNTZ. Sure.

Representative SOLARZ. Any tax has an economic consequence.

Ms. STUNTZ. That is correct, but certainly—and one of the things we are discovering is—there are differences in terms of their regressivity, how much they affect—

Representative SOLARZ. Right.

Ms. STUNTZ. And in terms of their effect on our competitiveness.

Representative SOLARZ. Well, I want to get into that when we return. Right now there is a vote on on the floor. So, I hope to be back in about 15 minutes. We will take a temporary recess until then. I hope you will forgive me, but like Pavlov's dogs, I have to respond to the call of the bell.

[A short recess was taken.]

Representative SOLARZ. The hearing will resume.

Ms. Stuntz, you were saying that there are various forms of energy taxes that could have differing impacts economically. Let me try out a couple of them and tell me what you see as the positives and the problems.

HIGHER ENERGY TAXES TO STIMULATE CONSERVATION

What about a higher tax on all forms of energy to stimulate conservation?

Ms. STUNTZ. I think one benefit is that it would tend to stimulate conservation. The downside may be that by increasing the costs of inputs to the U.S. manufacturing sector, which energy would, then you might disadvantage them internationally unless they were able to become so much more efficient that they were able to offset the difference.

It also would tend to make energy less affordable to consumers unless there could be commensurate changes in either energy assistance or some other area. So you would have to be concerned about the impact on consumers.

HIGHER ENERGY TAXES TO REDUCE RELIANCE ON FOREIGN SOURCES

Representative SOLARZ. What about higher taxes on all forms of imported energy in order to reduce our reliance on foreign sources of energy?

Ms. STUNTZ. Well, that has a different mix of effects. It would tend to benefit domestic producers of energy, whether it is oil or gas—because those tend to compete with each other—and by increasing the price of their competition, it would tend to be a production incentive for them.

It would, however, have differential impacts regionally. Some regions of the country, the Northeast as I am sure you are aware, is much more dependent right now, almost exclusively dependent, on imported oil and imported heating oil as compared to other parts of the country.

It also becomes difficult in terms of how we deal with our Western Hemisphere suppliers. We get still the majority of our oil and

the majority of our imported gas from Canada and Mexico. And if we were not to exempt them, certainly I would think that would cause problems with respect to the Free Trade Act and other matters. If you did exempt them, you have made such a large hole in your tax that it may not have the effects you wish.

Representative SOLARZ. We would have to presumably exempt Canada because of the Free Trade Agreement. What about Mexico?

Ms. STUNTZ. Well, I think again there are reasons why you would want to exempt Mexico. They might relate to other policies in terms of helping Mexico.

Representative SOLARZ. If we exempted both, it would dramatically diminish the revenue benefits of such a tax?

Ms. STUNTZ. That is correct.

HIGHER GASOLINE TAXES TO REDUCE AUTOMOBILE USE AND IMPROVE FUEL EFFICIENCY

Representative SOLARZ. Now, what about higher gasoline taxes in order to improve air quality by reducing automobile use and improving the fuel efficiency of cars and trucks?

Ms. STUNTZ. Sir, as with all of these taxes, our analysis is not completed, but preliminary results suggest that gasoline tax increases would have to be substantial, perhaps as high as 50 cents or so, in order to have appreciable differences in the amount that people drive and therefore to get at the kinds of benefits that you want.

It also, as I suggested earlier, would tend to hit most hard those industries that depend on things like tourism or trucks or airlines.

Finally, it has different regional effects. One of the things that people tend to overlook—I know I do being from the Midwest—is that great cities in this country, such as Los Angeles and Houston, were not sort of medieval cities developed at the time of horse and carriage like New England and a lot of Europe. They are basically premised on the ability of commuters to travel great distances. It really would have substantially different effects in the West than it would in other parts of the country.

Representative SOLARZ. I have seen it said that if we add a 25-cent-a-gallon increase on the Federal gasoline tax, that the real cost of gasoline would still be less than it was in 1973 when you adjust for inflation. Is that true?

Ms. STUNTZ. I believe that is correct. I think the real price of gasoline, adjusted for inflation, that we are paying right now is almost lower than any time going back a very long way, certainly the early 1950's.

Representative SOLARZ. So, doesn't that then, in effect, encourage people to use automobiles?

Ms. STUNTZ. Well, that is correct. Certainly compared to those in other countries who pay substantially higher prices for gasoline.

ENERGY AND ENVIRONMENTAL PROGRAMS THAT NEED TO BE INCORPORATED INTO AN OMNIBUS BILL

Representative SOLARZ. Let me ask you both, finally. I am in the process of trying to put together a bill, which I call the Omnibus National Security Act of 1990, which is based on the notion that

with the end of the cold war, the real threat to our security comes not from the possibility of Soviet military aggression, but from the economic challenge we face from Japan, the unified Germany, and an integrated Europe, and that in order to meet that challenge, you have to invest more in our human resources and our physical infrastructure and also eliminate the deficit. This would be done over 5 years, provide major increases in funding for education and job training programs and infrastructure programs, and it would be funded through reductions in defense spending and increases in revenues.

What I want to ask you is in terms of this kind of conceptual approach, which is designed to make our country more competitive as we move into the 21st century, are there any particular energy or environmental programs or initiatives that you think would conceptually fit into such an approach?

Now, I realize you have not cleared this with OMB. I am not asking you if the administration supports it. But just in terms of your own personal thinking, are there any environmental or energy programs or initiatives that you think would fit into this kind of approach, recognizing that there are a lot of problems in the country that this bill will not be directly dealing with, ranging from health care to drugs to all sorts of other problems, such as housing? But in terms of a bill that is designed to focus on our capacity to be competitive with the other major industrial democracies in the 21st century, are there any energy or environmental programs that you think would conceptually fit into this or not?

Mr. DAVIES. I think in some ways the previous dialogue that you had with Linda Stuntz has implied some of them in my opinion. They are those things that cut across a wide variety of problems. Greater energy efficiency and use of alternative fuels are the two that come to mind most readily in terms of dealing with a wide variety of environmental problems, helping the economic and competitive position of the United States and being a real technological and economic challenge to the country.

Representative SOLARZ. So, what programs or initiatives would that entail?

Mr. DAVIES. Well, I would think the development and encouragement of alternative kinds of fuels, renewable fuels presumably, and in terms of increased efficiency, the previous dialogue covered a number of them, more effective ways to achieve that. And there are other tools that are in existence, the CAFE standards, for example, and a variety of other kinds of standards. DOE sets efficiency standards for home appliances, for example. So, there are a variety of tools, instruments, even existing provisions of law that encourage greater energy efficiency.

Representative SOLARZ. Ms. Stuntz.

Ms. STUNTZ. Well, these are not things one would ordinarily think of as energy programs, but your focus on human resources is one that we absolutely share. Secretary Watkins has been very outspoken, and believe me, it is a sincere belief of his that we cannot have a successful national energy strategy or a successfully competitive United States unless we dramatically increase, particularly, the math and science literacy of the American public. Without this literacy, we are not going to be able to develop the technol-

ogies we need to reconcile these problems and achieve these objectives, and we are not going to be able to manage the technologies in a way that gains public credibility.

I guess, second, we need to deal with the issue of congestion. It will not matter how efficient we make cars and really what alternative fuels we use if we cannot do something about the Shirley Highway every morning and some other areas that are worse in this country. We are not building roads fast enough or getting people out of cars, whatever. Whatever means it is it will probably require a mix of means. We have to do something to try and cut down that congestion, and that in turn I guess is a larger problem of urbanization in general that affects air quality, that affects everything. But it is a problem for us. It is a problem for the rest of the world.

THE USE OF NUCLEAR POWER

Representative SOLARZ. What is the administration's policy on nuclear power? First of all, are we opening up any new nuclear powerplants in the country, or has that all been suspended?

Ms. STUNTZ. I believe there are about three in the pipeline, but we have not ordered a nuclear power plant for over 15 years in this country. I think there are only two or three left to be completed. Seabrook, I would say, has been completed, but there remains controversy. Shoreham, it does not appear, will ever be operational. There are a couple in the TVA system.

Representative SOLARZ. So, what is the administration's view of this?

Ms. STUNTZ. Our view at this point is that it would be premature to strike that option. We recognize there are problems. We are trying to figure out how to solve those problems.

Representative SOLARZ. Well, has the option been struck in any way?

Ms. STUNTZ. It appears for the time being that it has. There have not been any orders placed for nuclear plants.

Representative SOLARZ. There is no law that prohibits it.

Ms. STUNTZ. No, sir, but there are legal and regulatory barriers, as well as public acceptance barriers, that I think are as real as laws right now.

Representative SOLARZ. So, you are saying because of the legal and bureaucratic obstacles, not to mention public opinion, it is in effect an option that has been precluded.

So, is the administration making any changes in the law or the administrative procedures that would make it a live option?

Ms. STUNTZ. The Nuclear Regulatory Commission last year did promulgate a rule which would streamline the licensing process, allow for the certification of a few designs of plants that could then be replicated, much like the French have done. We think that is important, and we are trying to pursue achieving some of those precertified designs.

We are also working hard to solve the waste problem, which is a critical barrier. If we cannot get this controversy over as to what will happen with the disposal of civilian waste, we cannot give the industry or any utility who would order a nuclear plant any ability

to think that there is going to be a place to dispose of their waste. Why would you then order a plant?

Representative SOLARZ. Well, do you consider that the major obstacle to nuclear power is the inability to figure out what to do with the wastes?

Ms. STUNTZ. I would say really it is all three. It is getting a certified plant design so that the licensing process is manageable, getting the waste problem solved, and getting public credibility again that we can manage the technology safely.

Mr. DAVIES. At the risk of treading on DOE's territory, I would add a fourth, which is, at least based on my conversations with utility people, that it costs at this point about twice as much to run a nuclear powerplant as it does an up-to-date coal-fired plant. So, just the economics of the thing do not work out very well.

Representative SOLARZ. Well, I want to thank you both very much. This has been helpful and I appreciate it.

Ms. STUNTZ. Thank you, sir.

Representative SOLARZ. If our next witnesses will come up.

We will now hear from Jessica Tuchman Mathews, vice president of the World Resources Institute and Alan Randall, professor of resource economics and environmental policy at Ohio State University. Ms. Mathews, do you want to begin?

Let me say that your prepared statements will both be included in the record. We appreciate your willingness to submit these statements and to share your thoughts with us on these questions.

**STATEMENT OF JESSICA TUCHMAN MATHEWS, VICE PRESIDENT,
WORLD RESOURCES INSTITUTE**

Ms. MATHEWS. Thank you, Congressman Solarz. I would like to applaud you and this committee for this initiative to put some meat on the bones of our skeletal view of how national security is changing, and in particular for adding this particular hearing because I think that we are on the threshold of another important shift in our notion of national security.

The last one I think happened in the early 1970's when we broadened the definition from a purely geopolitical one to a definition that recognized the importance of international economics. We added an Under Secretary of State for Economic Affairs. We added an office at the National Security Council on International Economic Affairs. And basically the whole foreign policy and national security apparatus was redesigned to include international economics although many would argue that it still has not yet been fully integrated into the concept, and with that I certainly agree.

But I think what is happening now is an analogous broadening to include environmental issues and particularly the global environmental issues with the recognition that our sense of what national security will be in the coming decades is shifting from a definition that is principally a bilateral one, a zero-sum sense that as one nation's security gets bigger, another one's will decline, to a sense of collective global security measured by the condition of the global economy, which is clearly now a global one, and the global environment. And that requires some rather far-reaching changes in our behavior and in how we allocate our resources.

This little document that you have in front of you, that I would like to have entered in the record, was an effort taken 2 weeks ago jointly by the World Resources Institute and the American Assembly to look at exactly what those changes might be institutionally and policywise by a group of about 80 people from 17 countries, principally Americans. It brought together international relations, political science, international law and economics with experts from the environmental community to consider what changes in international governance are likely and are called for by the global environmental issues.

And as you can see from the first paragraph in that report, there is a very strong statement of what I have just summarized, namely that economic interdependence and global environmental threats, of which the group felt three were most important, are shifting national security concerns to a new focus on collective global security. The three are human population growth, global atmospheric change which includes both ozone depletion and greenhouse warming, and tropical deforestation and biodiversity loss.

In answer to the committee's two questions about what are the two most important, rather than three, problems—

Representative SOLARZ. Well, you can make it three.

Ms. MATHEWS. No, but I think it is a useful kind of discipline to attempt.

For the United States, I would put first without any question that our largest environmental problem is the lack of a clear national energy policy, which leaves us with an extremely wasteful energy economy. It requires twice as much energy for the United States to produce a dollar of GNP as it does in Germany and Japan, indeed, in all of Western Europe with the single exception of the U.K. and they almost hit that mark. And until we have an international energy policy, which sets clear goals and which is oriented toward the demand-side approach, that is to say, managing how much energy we need rather than how much supply we can produce, we will not be able to solve any of the other environmental problems.

And second, I would put greenhouse warming.

For the globe as a whole, looking particularly at the developing countries, I would put population growth first. We are heading toward, on the current trend, a tripling, very nearly a tripling, of the current global population, that is to say, 14 billion people. Nearly everybody assumes that we are still on the official decade-old U.N. median projection trend, which in fact takes us to 10 billion, which is difficult enough to handle on this planet. I can imagine solutions to most of the global environmental problems in a world of 10 billion, although it would take some heroic efforts. However, I find it very difficult to imagine those solutions in a world of 14 billion and in a world where even minimally acceptable standards of human welfare are met. That I simply do not personally foresee.

Representative SOLARZ. Let me just interject a question here. You know you look at these charts of the population of the world at various points in history, and it obviously begins to increase dramatically I guess toward the latter part of the 19th century. What do we have now?

Ms. MATHEWS. We are about 5.2 billion.

Representative SOLARZ. So, there are 5 billion roughly in the world. When was it 1 billion?

Ms. MATHEWS. 135 years ago, I believe.

Representative SOLARZ. So, 135 years ago—

Ms. MATHEWS. That may be wrong. Well, it is very recent. The curve is extremely steep.

Representative SOLARZ. If 135 years ago somebody had said can you imagine a world with 5 billion people, I suppose it would have evoked shrieks of anguish and expressions of incredulity and claims that life could not be sustained and the like because that was an increase of 5 billion. But it turns out life is sustainable with 5 billion people.

It may well be that 14 to 10 billion is unsustainable, but on what do you base that conclusion?

Ms. MATHEWS. That is a very fair question because certainly nothing is more laughable than looking back on prior efforts to look ahead at what technology can achieve.

But I would take issue with one thing which is that I do not think we do know that life with 5 billion people is sustainable. We are certainly not in a sustainable mode right now with respect to virtually any of the global environmental trends. And we have more than a billion people living in absolute poverty, that is to say without either adequate food, clothing, shelter, or jobs.

Representative SOLARZ. That is 20 percent of the population. You know, 135 years ago with a billion people you might have had 40 percent living in absolute poverty as it was defined then. Nobody kept those statistics.

Ms. MATHEWS. That is right.

I think your question is a fair one, and obviously looking ahead a century, I can only tell you that my answer is based on looking in very gross terms at the numbers, what it would take, for example, to stabilize the atmosphere in greenhouse terms, of what land is currently available for additions to arable land, of what the numbers would be, what we would need to get if we were to adequately feed 14 billion, current soil trends, water trends. And I do not mean it to be anything other than a very ball park kind of a sense. I do not think, putting everything I know together and not in an equation that I can show you, that the planet can sustain 14 billion people at an acceptable quality of life. And I think it is possible, but not easy to do it with 10 billion. I think you have to take that as one person's hunch and nothing more.

No. 2, for the globe as a whole, I would include global warming.

I think that all of these issues will only yield, as you suggested in an earlier question, to a collective global effort, and that the division of labor will be that the northern countries will have to reduce their very heavy per capita intensity of resource use. And by resources, I include not only the kind you dig out of the ground or cut down, but the use of waste disposal, waste receptacles in the biosphere and in the atmosphere and water. And the developing world will need to slow population growth where 95 percent of the projected growth is to occur, and that is the approximate division of labor since the stress on the planet is the product of the number of people times their per capita demands.

Turning for a second back to the U.S. energy situation and to the related issue of global warming, you pointed out earlier that it is necessary, but not sufficient, for us to do it alone, and I think that is certainly right. But it is worth pointing out the degree to which we dominate the global energy picture.

Right now the United States accounts for 26 percent of CO₂ emissions from fossil fuel sources. The rest of the G-7 altogether account for 18 percent. So, when you put the seven most powerful economies in the world together you have one colossus in terms of CO₂ emissions at 26 percent, and the next economy, Japan, is at 5 percent.

Representative SOLARZ. CO₂ is what?

Ms. MATHEWS. Carbon dioxide.

Representative SOLARZ. And that is produced by what?

Ms. MATHEWS. By all fossil energy use. That is its principal source. The other major source, about a third of global CO₂ comes from deforestation, but that is a developing country contribution.

So, we loom over the rest of the planet, and there will be no chance for a concerted global effort to stabilize the atmosphere unless and until the United States takes steps to cut its emissions.

Happily for us I think that efforts to do that will not only not cost us in a net sense economically but will improve our competitiveness simply because currently our energy use is so wasteful as compared to the other economies. As I said, we are putting in twice as much energy per dollar of GNP and that costs us in all of our exports, including services, because of the very high-energy and transportation costs.

The connections to environmental issues in a more traditional sense are also essential. I think that the reason Congress has had such a terrible time grappling with the Clean Air Act, not just this year but for years past, has been because we are trying to achieve clean air separate from, entirely divorced from, what we are doing with energy. We think of them as two completely separate issues. We have two different agencies, two different sets of regulations, two different armies of lawyers and law books. And the fact, 80 percent of all air pollution comes from energy use.

So, it is clearly impossible ultimately to achieve a sensible, workable clean air strategy without considering in an integrated sense either energy use or transportation. And that I think is the reason why clean air has proven to be such a terrible bramble in the side of Congresses and administrations past.

And just to reinforce that, you asked earlier about the real cost of gasoline. It is, in fact, lower today than it has been since 1918, that is to say, ever since we had the automobile.

With respect to what we might do about it, my own feeling is that taxes, user fees in a broad consumer sense, are the most economically efficient way to go. I think that is becoming to be virtually the universal consensus from all parts of the ideological spectrum. Of the four options that the committee put forward for consideration, it seems to me that the carbon tax and the gasoline tax have substantial advantages over either of the other two approaches. The guide for policy ought to be to maximize the benefits that you get from one of these taxes other than the revenues, which are obviously the first concern. And choosing between the carbon tax

and the gasoline tax becomes a mix of political considerations and economic ones that is very hard to disentangle.

I personally believe, as this op-ed piece that you have in front of you lays out, that a long-term, large, phased-in gasoline tax—and the one I specifically propose is a dollar a gallon indexed to inflation, phased in over 10 years, which is a very generous phase-in period—would have an enormously positive impact on the economy. The key with the gasoline tax in my view is not to swallow the political pain of doing it for a tax that is too small to give you any benefits. And I think that anything lower than 50 cents a gallon is unlikely to bring you any net benefits other than revenue. And the reasons why are laid out in this op-ed.

But we have enormous needs both to bring down the deficit and the trade deficit, and oil is now the largest item on our import balance and automobiles are the second largest. And we do need to win back the 30 percent of our domestic automobile market that we have ceded to imports largely because after the first oil crisis, we could not produce high-mileage automobiles. And we are farther behind Japan and Europe now than we were in 1973. The gap between what Detroit has in testing, prototypes, and what are being tested in Europe and Japan is far larger today.

Representative SOLARZ. In terms of miles per gallon.

Ms. MATHEWS. Yes.

Half a dozen European manufacturers have cars that are being tested, four and five passenger cars, that get over 70 miles per gallon, and several Japanese manufacturers do as well. We have nothing in that category. Those cars are being developed and tested and waiting until oil prices go back up, which they will certainly do.

A carbon tax has other tremendous benefits. It allows you to target reductions. First of all, it spreads itself across the entire economy, whereas the gasoline tax is obviously highly focused. It gives you larger revenue for what appears to be a smaller tax, that is to say, in terms of cents per unit and therefore might be more politically acceptable. That is traded off against the question of whether the country is willing to accept a tax that sounds like we have reached a national consensus on greenhouse warming. There are pluses and minuses on both sides.

But I think that, particularly with the gasoline tax, if we could reach a consensus that allows you to phase in a tax over enough time to give the economy time to anticipate and adjust, you would minimize the macroeconomic costs and find that the benefits would be very large.

The thing that is unacceptable is to drive up the costs of driving without giving consumers an alternative, that is to say, other forms of getting to work, obviously. And that is what we would do if you had, for example, a very high tax imposed immediately with no phase-in period or one where Detroit did not feel that there was a national consensus behind an effort to move to much higher mileage cars.

Perhaps I will just respond to your questions earlier about what from this area belongs in a newly defined National Security Act and what can be honestly related to economic competitiveness. In my view there are two broad, essential answers to that. The first is

obviously energy, and the two sectors where we have the most to gain are transportation, we have discussed, and the electrical sector. It is I think virtually unanimously agreed right now that there are very large opportunities for energy efficiency improvements in the electric sector at net negative cost, that is to say, they cost less than nothing, that give immediate payback.

Representative SOLARZ. What do you mean by the electrical sector?

Ms. MATHEWS. Production of electricity.

And the thing that is blocking them both is habit. Utilities have to change from a traditional notion of being an energy supplier to being a supplier of energy services, that is to say, of supplying their customers with the energy they need to meet their needs, rather than a particular number of kilowatthours. The other block is the anachronistic way that the utilities are regulated.

There is a way to solve that at the Federal level in one easy costless step. And that is under the interstate commerce clause, or using the policing powers of the Clean Air Act, to require that State utility regulatory commissions require utilities to use what is called least-cost planning in their operations and to regulate them in such a way that the utilities can make a profit in doing that.

Environmentalists have been pushing for the first change for a decade and wondering why it never happened, and the reason it never happened is when utilities are asked to cut back on the number of kilowatthours that they produce, they are being asked to stop making money because that is how they make their money. So, until they can make a profit by saving energy as well as by producing it, the changes will not happen.

And those changes are starting to happen State by State. Several States have made precisely those changes, some under lawsuit impetus and some voluntarily. It would help us along a lot if we could do it for all 50 States at once.

The other initiative that I would recommend is a far more broad-based effort to recognize that the long-term trends for the globe are the need to use both energy and all resources with very high efficiency, namely, that the only way the planet can accommodate three- to five-fold economic growth, which is predicted over the next 50 years, a doubling or tripling of energy use and a comparable increase in wastes, is if we redesign the economy from the inside out. The way we are going now, there is no way the planet can conceivably accommodate all that growth, all that use of land, all that waste. And we have learned in the last 20 years that regulating at the end of the pipe is the least efficient way to do it. We have to go back upstream and redesign the process. So, what we need to do is redesign energy, manufacturing, agriculture, materials use and manufacturing, communications, all of them with an eye toward minimizing global environmental impact.

I think if we do that, we will be the economic winners in the world. Indeed, if you look at Germany and Japan, it is precisely what they are doing in effect.

If I could just take 1 more minute. It is to me a tremendous irony that the response to global warming right now is that the United States is carrying virtually the entire global share of the research burden, \$1 billion a year depending on how you measure it. Japan

is spending \$17 million with one of the most powerful scientific establishments in the world, virtually nothing. On the other hand, the United States continues to see global warming as a tremendous economic threat and Japan is looking at it as a great economic opportunity.

And just last month they announced the creation of something called the Institute of Industrial Technology for the Global Environment. And it is an institute designed to do exactly what I just recommended, that is to say, a mutually government and industry funded effort to do long-term, high-tech research to develop the new technologies and processes that will own the marketplace in the globe that we can already see coming.

We know how to do this in the defense sector. We have done it through DARPA for years and years and years very successfully. What we ought to do is set up an agency to do it in the civilian sector with the overall global environmental goal in mind, and we will end up being the No. 1 economy.

Thank you.

[The report and op-ed article referred to by Ms. Mathews follow:]

U.S. INTERESTS IN THE 1990'S

PRESERVING THE
G**LOBAL**
ENVIRONMENT
THE CHALLENGE OF SHARED LEADERSHIP

APRIL 19-22, 1990

ARDEN HOUSE

HARRIMAN, N.Y.



WORLD RESOURCES INSTITUTE

THE AMERICAN ASSEMBLY
COLUMBIA UNIVERSITY

The volume, *Preserving the Global Environment: The Challenge of Shared Leadership*, edited by Jessica Tuchman Mathews, is an American Assembly book developed for the Seventy-seventh American Assembly, the contents of which are listed on the following page. The book will be published in November, 1990, by W.W. Norton & Company. It is available to you in hardcover at a 15% discount off the list price of \$22.95. To order, fill out the Coupon below and send with your check or credit card order to:

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PREFACE

On April 19, 1990, 76 men and women from 18 countries, representing a spectrum of government, business, labor, academia, the media, and the professions, gathered at Arden House, Harriman, New York for the Seventy-seventh American Assembly entitled *Preserving the Global Environment: The Challenge of Shared Leadership*. For three days the participants discussed how the United States should reorient its policies and relations toward other countries and international institutions to preserve our global environment. This was the third in a series of American Assembly programs exploring the changing global role of the United States in the 1990s.

This program was jointly sponsored by the World Resources Institute (WRI) and The American Assembly. Dr. Jesssica Tuchman Mathews, Vice President of WRI, served as director and edited the background papers prepared for the participants. Authors and titles of these papers, which will be compiled and published as a W.W. Norton book, are:

Daniel A. Sharp James Gustave Speth	<i>Preface</i>
Jessica Tuchman Mathews	<i>Introduction and Overview</i>
Nathan Keyfitz	<i>Population Growth Can Prevent the Development That Would Slow Population Growth</i>
Kenton Miller Walter V. Reid	<i>Deforestation and Species Loss</i>
Richard Elliot Benedick	<i>Protecting the Ozone Layer: New Directions in Diplomacy</i>
George W. Rathjens	<i>Energy and Climate Change</i>
Tom H. Tietenberg	<i>Managing the Transition: The Potential Role for Economic Policies</i>
Richard N. Cooper	<i>The World Economic Climate</i>
Peter H. Sand	<i>International Cooperation: The Environmental Experience</i>
Abram Chayes Antonia H. Chayes	<i>Adjustment and Compliance Processes in International Regulatory Regimes</i>
Jessica Tuchman Mathews	<i>The Implications for U.S. Policy</i>

Evening programs during this Assembly included an address by Maurice F. Strong, Secretary General, 1992 U.N. Conference on Environment and Development; and panels on "Arms, Conflict, and the Environment" (Lincoln P. Bloomfield, Professor of Political Science,

Massachusetts Institute of Technology, Moderator; Nicole Ball, Director of Analysis, The National Security Archive; Michael Klare, Director, Five College Program in Peace and World Security Studies; Kosta Tsipis, Director, Program in Science and Technology for International Security, Massachusetts Institute of Technology; and a panel on "The Common Environment of Eastern Europe" (Robert H. Pry, Director, International Institute for Applied Systems Analysis, Laxenburg, Austria, Moderator; Tamas Fleischer, Senior Research Fellow, Research Institute for World Economy of the Hungarian Academy of Science, Budapest; Andrzej Kassenberg, Institute of Geography and Spatial Economy, Polish Academy of Sciences, Warsaw; Jaromir Sedlak, Krupp Senior Associate, Institute for East-West Security Studies, New York).

Following their discussion, the participants issued this report on April 22, 1990; it contains both their findings and recommendations.

We gratefully acknowledge the support of the following organizations which helped to fund this undertaking:

Principal Funder	Rockefeller Brothers Fund
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These organizations, as well as the World Resources Institute and The American Assembly, take no position on subjects presented here for public discussion. In addition, it should be noted that the participants took part in this meeting as private individuals and spoke for themselves rather than for the institutions with which they are affiliated.

We would like to express special appreciation in preparing for the fine work of the drafting committee of this report: Ian Burton, Harlan Cleveland, Charles Ebinger, T.N. Khoshoo, Carlisle F. Runge, Alexander Shakow, Bruce Smart, James Gustave Speth, and Jennifer Seymour Whitaker.

James Gustave Speth
President
World Resources Institute

Daniel A. Sharp
President
The American Assembly

The printing and distribution of this report has been funded by a special grant from CITIBANK and from The Pew Charitable Trusts.

**FINAL REPORT
of the
SEVENTY-SEVENTH AMERICAN ASSEMBLY**

At the close of their discussions, the participants in the Seventy-seventh American Assembly, on *Preserving the Global Environment: The Challenge of Shared Leadership*, at Arden House, Harriman, New York, April 19-22, 1990, reviewed as a group the following statement. This statement represents general agreement; however, no one was asked to sign it. Furthermore, it should be understood that not everyone agreed with all of it.

Three indivisibly linked global environmental trends together constitute an increasingly grave challenge to the habitability of the earth. They are human population growth; tropical deforestation and the rapid loss of biological diversity; and global atmospheric change, including stratospheric ozone loss and greenhouse warming. These trends threaten nations' economic potential, therefore their internal political security, their citizens' health (because of increased ultraviolet radiation), and, in the case of global warming, possibly their very existence. No more basic threat to national security exists. Thus, together with economic interdependence, global environmental threats are shifting traditional national security concerns to a focus on collective global security.

The 1990s offer an historic opportunity for action that must not be allowed to slip. Not only do the global environmental trends pose an urgent threat to the planet's long term future, but the waning of the

The industrialized countries must prove through concrete action that they take environmental issues seriously.

Cold War also lifts a heavy psychological and economic burden from both governments and individuals, freeing human, physical, and financial resources to meet the new challenge.

There is evidence that developing countries are ready to become partners in this global endeavor. However, their willingness to act will depend on help from the industrialized countries to alleviate the poverty which is a major aggravating cause of population growth and environmental degradation. It will also depend on the industrialized countries' demonstrated commitment to reduce their heavy per capita

consumption of natural resources and ecological services. The industrialized countries, in short, must prove through concrete action that they take environmental issues seriously. The other side of the equation that determines environmental stress, which must be addressed, is population growth: 95 percent of which will otherwise occur in the developing countries.

The global response must therefore be launched as a mutual commitment by all countries. The certainty that all nations will share a common destiny demands that they work together as partners.

The global environmental challenge is fundamentally different from previous international concerns. Unlike the effort to avoid nuclear war that dominated international relations for the past forty-five years, success or failure will not hinge on the actions of governments alone. It will rest equally on the beliefs and actions of billions of individuals, and on the roles played by national and multinational business. The importance of individual behavioral change and the major new roles to be played by these non-governmental actors demand profound change in the institutions and mechanisms of international cooperation.

POPULATION GROWTH

The degradation of the global environment is integrally linked to human population growth. More than 90 million people are added each year—more than ever before. On its present trajectory, the world's population could nearly triple its current size, reaching 14 billion before stabilizing. With an heroic effort, it could level off at around 9 billion. However, today's unmet need for family planning is huge: only 30 percent of reproductive age people in the developing world outside of China currently have access to contraception. Women's full and equal participation in society at all levels must be rapidly addressed.

Policy makers must recognize that actions taken during the critical decade of the 1990s will largely determine whether human population will double or triple before stabilizing. Nigeria, for example, could grow from about 30 million in 1950 to around 300 million in 2020—a tenfold increase in one lifespan. In the absence of rapid progress in family planning, future governments may be tempted to restrict human freedom in order to deal with unmanageable population increases.

The pressure of population on the environment is bound up with poverty: in the Sahel as well as other areas threatened by famine and

environmental deterioration, poor people have no other option but to consume all available local resources. Sustaining the environment thus requires a balance between wise environmental management, active efforts to slow population growth, and equitable economic development.

No Administration can be regarded as serious about the environment unless it is serious about global population growth.

In many developing countries, population pressures on the land threaten national security as people migrate in search of sustenance, aggravating territorial disputes and often creating violent conflict.

While population pressures affect the planet as a whole, they must be individually addressed by each nation and its citizens. Countries must make their own assessments about population levels and growth, ordering their development priorities and incentives accordingly. Industrialized nations can offer much needed technical support and experience in family planning to help developing nations and individual couples achieve their goals.

Despite its complexities, the problem clearly calls for several policy initiatives aimed at:

- Universal access to family planning by the end of the decade—this will require a global expenditure rising to reach \$10 billion a year by the year 2000.
- Giving priority to investment in education for women and in bringing women into full economic and political participation.
- Greatly increased research to provide a wide array of safer, cheaper and easier birth control technologies.
- Stepped up mass communication aimed at increasing support for family planning.

Since 1981, the United States has retreated from the strong leadership role on world population it exercised in the two previous decades. The ideological debate has destroyed a bipartisan consensus that laid the groundwork for crucial international cooperation. Money for research has fallen sharply, and the global family planning effort has been gravely weakened. Positive U.S. leadership needs to be reestablished, through the restoration of U.S. support for the major international population and family planning organizations and annual population assistance budgets more commensurate with global requirements. Ultimately, no Administration can be regarded as serious about the environment unless it is serious about global population growth.

TROPICAL DEFORESTATION AND LOSS OF BIODIVERSITY

Tropical deforestation and the loss of a diverse set of species rob the earth of its biological richness, which undermines long-range ecological security and global economic potential. Nearly 20 million hectares of tropical forests are lost every year. Conservative estimates put the extinction rate at one hundred species per day: a rate unmatched since the disappearance of the dinosaurs. Escalating human populations, deforestation, disruptions of watersheds, soil loss, and land degradation are all linked in a vicious cycle that perpetuates and deepens poverty, and often creates ecological refugees.

Because deforestation and the loss of biodiversity result first from mismanagement at the local level, effective interventions must also occur at this level, building upon local norms, traditions, and cultures that will promote sustainable management. Recent efforts to restore common property management by indigenous peoples in the Amazon basin of Colombia and Ecuador are notable initiatives. This approach respects the rights of indigenous populations and the wisdom of their institutions, and is likely to be low in cost.

At the national level, effective management will require a commitment to conservation, land use planning, secure property rights, and sustainable agroforestry, so that forests provide a continued flow of goods and services with minimal ecological disruption. Timber harvesting must reflect long-term scarcity values, consistent with full environmental and social cost accounting. Tropical forests are often sacrificed for a fraction of their real value by nations in search of quick sources of foreign exchange. While "debt-for-nature" swaps by the private sector are helpful and should be expanded, they are unlikely to be sufficient *either* to save forest ecosystems *or* to relieve debt loads. However, the opportunity exists to include government debt in this process and to complement the international debt strategy by linking reduction in public sector debt to policy reforms with environmental benefits.

What policy goals and means are appropriate locally, nationally, and internationally?

- While respecting local and community property rights which promote ecologically sound management, national governments can help most by eliminating distorted economic incentives that encourage mismanagement, such as the granting of property titles in return for forest clearing, and below-cost timber sales. International

institutions should encourage such reforms which, at the same time, relieve the pressure on remaining tropical forests and help bring about their sustainable exploitation.

- Forest conservation is not enough; it must be accompanied by aggressive, ecologically sensitive reforestation and land rehabilitation, especially on arid lands and where fuelwood demands are high.

- These measures will be costly. Current international funding levels (such as called for in the Tropical Forest Action Plan) should be increased tenfold from about \$1 billion to \$10 billion. The additional funds will only achieve their goals if accompanied by increased training and broad non-governmental participation in the planning process.

- An international Strategy and Convention on Biodiversity would provide a means to actively engage many institutions, and to formulate a global action plan for identifying and funding critical needs in ecological "hot spots." The Strategy and Convention should be readied for the 1992 Conference on Environment and Development.

- The World Bank in its lending policies should be sensitive to encouraging land use and forest practices that are consistent with environmental sustainability.

ATMOSPHERE AND ENERGY

Human activities are substantially changing the chemical composition of the atmosphere in a way that threatens the health, security, and survival of people and other species, and increases the likelihood of international tensions. Depletion of the ozone layer and global warming are two salient examples, but other unforeseen effects cannot be ruled out.

Ozone

The depletion of the ozone layer by chlorofluorocarbons (CFCs) allows increased ultraviolet B radiation from the sun to enter the earth's atmosphere, threatening human health and the productivity of the biosphere.

The 1987 international agreement to limit production and use of CFCs in the Montreal Protocol to the Vienna Convention was a landmark achievement and a promising precedent for international agreements on other global environmental issues. However, the Protocol itself is an unfinished story. Full participation by the less

developed countries has not yet been achieved, issues of acceptable alternatives and technology transfer remain unresolved, and the treaty itself must be revised to require complete elimination of CFC production and use by industrialized countries no later than 2000. How these issues are resolved will have important implications for addressing climate change and other global ecological problems.

The Greenhouse Effect

There is a scientific consensus that rising concentrations of greenhouse gases will cause global climatic change. Atmospheric levels of carbon dioxide have increased 25 percent since the beginning of the industrial era. Most of the CO₂ emissions derive from energy use. About 90 percent of the world's current energy use is met by the burning of carbon-based fuels. Tropical deforestation is also a major source of carbon dioxide. Other greenhouse gases, methane, nitrous oxides, and CFCs, are collectively as important as carbon dioxide in their greenhouse effect and are increasing more rapidly.

Therefore, the earth is set to experience substantial climate change of unknown scale and rapidity. The consequences are likely to include sea level rise, greater frequency of extreme weather events, disruption of ecosystems, and potentially vast impacts on the global economy. The processes of climate change are irreversible and major additional releases could be triggered from the biosphere by global warming in an uncontrollable self-reinforcing process (e.g. methane release from unfrozen Arctic tundra).

"Insurance" actions to reduce CO₂ emissions and those of other greenhouse gases are therefore needed, starting now. The associated risks are much less than those of not acting and in some cases require no net increase in cost.

Past and present contributions to greenhouse gases come largely from the industrialized countries. However, the less developed countries already contribute significantly through deforestation, and their share will increase sharply with development and expansion of fossil fuel use, especially coal.

The international community should work quickly toward a multilateral framework ultimately involving national targets for reducing emissions of carbon dioxide and the other greenhouse gases. There is no need for the industrialized countries to await universal agreements. They should act now: individually and/or in concert. Indeed, some in Western Europe have already begun.

Initial steps involve the deployment of a range of policy

instruments to achieve energy conservation and efficiency, demand-side management, and changes in the fuel mix. A

This American Assembly strongly endorses the global target ...of a 20 percent reduction in CO₂ emissions by 2005...

considerable expansion of support for research and development into alternative energy sources is urgently required. There may be a future for nuclear energy if credible assurances can be provided with respect to safety, waste disposal, nuclear

proliferation, and comparative costs.

This American Assembly strongly endorses the global target now under study by the Intergovernmental Panel on Climate Change (IPCC) of a 20 percent reduction in CO₂ emissions by 2005 as a minimum goal.

GOALS AND MEANS OF INTERNATIONAL COOPERATION

Global environmental damage threatens the physical as well as economic security of individuals and nations without exception, giving new reality to traditional concepts of collective security. Environmental threats are also likely to create new sources of conflict. The risks of collective insecurity call for an unprecedented strategy of international cooperation.

The health of the global environment is the product of behavior by billions of individuals. National governments must increasingly take into account the views of their citizens as they design policies to confront environmental concerns, and can increasingly rely on the influence and impact of changes in individual behavior. Coalitions of non-governmental actors can be a powerful force in hammering out bargains, hardening scientific consensus, and developing legal concepts and new institutional frameworks. Governments and international institutions can then set widely applicable norms and standards.

In this new international context, institutions and mechanisms are becoming more fluid: the complex and swiftly evolving environmental dilemmas demand it. Thus we need to seek global consensus in the United Nations as work proceeds in many other arenas to reach more limited agreements. These include unilateral action by individual governments, small groups of nations bargaining on discrete issues, an active role by companies and non-governmental organizations (NGOs), regional arrangements, and hybrid public-private

partnerships (such as the collaboration between pharmaceutical companies and the World Health Organization on new birth control measures—a pattern that should be copied for ecological restoration). Actions and decisions should always be taken at a level as close as possible to the people affected by them.

Within the UN system, the United Nations Environment Programme (UNEP) has demonstrated its capacity to serve as innovator, monitor, and catalyst—notably in the Mediterranean cleanup and the 1987 ozone treaty. UNEP should be strengthened and much more dependably funded to continue this important role.

Among key priorities for international action are the following:

Establishing Norms and Setting Goals

The first task of the international community as a whole is to develop a broad consensus on norms of global survival, and to establish specific environmental goals—for example, boundary conditions on pollution of the atmospheric commons, targets for the protection of biodiversity, and population policy goals—toward which public and private efforts should be directed.

Meeting the Costs

Industrial countries must make major investments to improve their own performance. Developing countries must, in their own interest, increasingly incorporate sound environmental practices as part of their own development programs. Resolving the debt overhang is crucial. But industrial countries will also need to make a special effort to expand flows to developing countries if needed investments in global environmental priorities—slowing population growth, protecting the ozone layer, limiting greenhouse gas emissions, preserving biodiversity, and many other non-global environmental needs—are to occur. Because of resource scarcities, developing countries are otherwise unlikely to act.

The UNEP, United Nations Development Program (UNDP), and the World Bank have proposed a \$1 billion, three-year pilot facility for this purpose; it deserves strong support. Much larger resource flows will be needed in the future. As a source of such funds, serious consideration should be given to establishing an international fee (for example, on carbon use) because conventional sources of finance are simply not adequate to, or appropriate for, the task of reducing global environmental risks.

Policy Reforms

While additional financing is required, many other measures can make a major impact. International agreement is needed to introduce into national accounting methods the full costs incurred in depletion of natural resources and use of the global commons; this could serve as a valuable guide to all nations' decision makers to use scarce resources well. International trade is a major source of revenues for development; the current Uruguay Round of the General Agreement on Tariffs & Trade (GATT) negotiations should be used to strengthen environmental considerations in trade policy. All international financial and planning institutions should take account of how policy recommendations affect environmental policy.

Technical Assistance and Research

All countries need additional environmental expertise and research. An International Global Environmental Service Corps should be established to provide technical help and build local environmental capacity.

Expanding the Role of the Private Sector

Government and international organizations have special responsibilities, but the private sector may have the most impact. Where central planners and government bureaucracies have tried to replace free markets, neither economic development nor environmental protection has been well served.

The private sector should be spurred to anticipate—and benefit from—the changing structure of regulation and market demand by developing environmentally superior technologies. Governments need to encourage such environmental entrepreneurship through the use of taxes, subsidies, and other signals, including codes of conduct. An international structure of targets and standards is needed to support this approach.

Within the private sector, an enormous number of citizen organizations now play an important part in establishing priorities. In all the actions we propose, active and early participation by representative groups at the local, national, and international level should be encouraged.

The 1992 U.N. Conference on Environment and Development

None of these environmental challenges can be met without a new era of heightened cooperation between the industrial and developing countries. This will come in many shapes and forms, using *ad hoc* coalitions of governments, active participation of NGOs and the private sector, and other new arrangements designed to meet varying needs.

The 1992 conference provides a unique opportunity to build on these initiatives to advance international action on the points noted here—in short, to achieve a global compact for environmental protection and economic progress. The conference should affirm that slowing population growth is an integral part of meeting the environment and development challenge. It should agree on how the additional resource needs of the decade should be met. It should establish a new official methodology for calculating national income accounts. And it should complete legal agreements on conventions already under negotiation—for protection of the atmosphere, and biological diversity.

A CHALLENGE TO THE UNITED STATES

As the world's largest economic power and consumer of environmental resources, the United States must play a key leadership role both by example and through international participation. This calls for strong action at every level from private households to the White House. Change is difficult and not cost free. It will take commitment and courage. But the long term benefits will be worth every penny.

Essential to this drive is the development of a national environmental strategy, through the joint efforts of government, private industry, NGOs, and individual leaders. It should be aimed at global goals that include:

- A halt to the buildup of greenhouse gases;
- A lower per capita environmental cost of industrial and agricultural practices and consumption patterns, particularly in the United States and other wealthy nations;
- Slowing and then reversing deforestation;
- A drastic reduction in the rate of human-caused species extinction; and,
- Stabilization of world population before it doubles again.

To develop and carry out such a strategy will require integration of

policies and more effective coordination of agencies within the U.S. government, and a major review should be launched to determine the needed changes. Equally important, the strategy can benefit from close cooperation between private industry and environmental

...enough is known about the risks of global warming and climate change to justify an immediate U.S. policy response.

experts to identify, develop, and adopt environmentally superior technologies.

With its preeminent scientific research capacity, the United States is in a position materially to aid development, improve the environment, and

increase the planet's carrying capacity. Government research and development funding should be shifted from a preoccupation with defense to greater concern for the environment, to increase knowledge of natural phenomena and trends, to expand our understanding of the human dimensions of global change, and to develop more benign technologies, particularly in energy, manufacturing, and agriculture. Incentives for private environmentally-related research and development should also be considered.

In addition to lending strong support to the multilateral initiatives identified above, U.S. action is needed in the following areas:

Adopt New Policies on Global Warming and Energy

Despite considerable uncertainties, enough is known about the risks of global warming and climate change to justify an immediate U.S. policy response. Without waiting for international consensus or treaties, the United States should take actions to reduce substantially its emissions of carbon dioxide, CFCs, and other greenhouse gases. The United States should promote a global phase-out of CFC production by 2000. U. S. energy strategy should emphasize reducing fossil fuel use through aggressive energy efficiency improvements, especially in transportation and in the production and use of electricity, backed by greater efforts to introduce renewable energy sources. Research on nuclear energy should be pursued to determine whether designs can be developed that might resolve safety and proliferation concerns and restore public and investor confidence.

In addition to performance standards and other regulatory approaches, economic incentives are essential to achieving energy efficiency. Most important is a large, phased-in increase in the federal tax on gasoline and the adoption of a carbon dioxide emissions fee applicable to users of fossil fuels. To avoid competitive imbalances, other industrial nations should be urged to adopt similar policies.

Strengthen Cooperation with the Developing Countries and Eastern Europe

Recognizing that meeting many of today's environmental challenges will require major actions by the developing countries, the United States should launch new programs and strengthen existing

Most important is a large, phased-in increase in the federal tax on gasoline...

ones that can encourage and support these undertakings. Operating in concert with international partners whenever appropriate, these programs should: 1) provide strong financial and other

support for universal access to family planning and contraceptive services, accompanied by efforts to improve the status of women and their employment opportunities; 2) launch major new financing initiatives aimed at facilitating developing country participation in international negotiations, and at meeting the large need for investments in sustainable forest management, biodiversity protection, watershed rehabilitation, fuelwood production, and techniques adapted to the needs of small-scale farmers; 3) facilitate the transfer of needed technology, expertise, and information in energy, environment, and population; 4) assist the developing countries with training and capacity building both in government and in NGOs; and 5) redeploy a substantial fraction of military and security-related assistance to help developing and East European countries to alleviate their environmental problems. Two important objectives of these efforts should be to make improved technologies available to developing countries at affordable costs, and relatedly, to assist in finding environmentally acceptable ways of meeting their energy needs.

Recent political changes in Eastern Europe afford an immediate opportunity to reduce environmental stress of local and global importance. Resolving the region's severe environmental problems requires collaboration and assistance from the United States, including the private sector. Such collaboration is a commercial opportunity, and should be one of the more economically efficient ways of reducing environmental degradation. It is vital, however, that the needed transfer of technology and funds from the West should not be made at the expense of resource flows to the developing countries.

Revise Agricultural and Forestry Policies

The United States, through negotiations abroad as well as unilateral actions at home, should phase out agricultural subsidies

that encourage overproduction, excessive use of chemical fertilizers and pesticides, and mismanagement of water resources. Eliminating overproduction and adopting full cost pricing will open U.S. and other markets to developing country producers who enjoy a natural comparative advantage, thus aiding their economic development and intervening in the poverty-population-environment degradation cycle. Similarly, U.S. national forestry policies should be amended to eliminate the federal subsidization of timber sales at below market prices, and jointly with Canada, to conserve the last remnants of old growth temperate rainforests.

A FINAL WORD

On this Earth Day 1990, we call attention to the need for immediate international action to reverse trends that threaten the

If the world community fails to act forcefully in the current decade, the earth's ability to sustain life is at risk.

integrity of the global environment. These trends endanger all nations and require collective action and cooperation among all nations in the common interest. Our message is one of urgency. Accountable and courageous leadership in all sectors will be

needed to mobilize the necessary effort. If the world community fails to act forcefully in the current decade, the earth's ability to sustain life is at risk.

THE AMERICAN ASSEMBLY

*Preserving the Global Environment:
the Challenge of Shared Leadership*
April 19-22, 1990
Arden House, Columbia University

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The World Resources Institute (WRI) is a policy research center created in late 1982 to help governments, international organizations, and private business address a fundamental question: How can societies meet basic human needs and nurture economic growth without undermining the natural resources and environmental integrity on which life, economic vitality, and international security depend?

The Institute's current areas of policy research include tropical forests, biological diversity, sustainable agriculture, energy, climate change, atmospheric pollution, economic incentives for sustainable development, and resource and environmental information.

WRI's research is aimed at providing accurate information about global resources and population, identifying emerging issues, and developing politically and economically workable proposals.

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An affiliate of Columbia, the Assembly seeks to provide information, stimulate discussion, and evoke independent conclusions on matters of vital public interest.

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At least two national programs are initiated each year. Authorities are retained to write background papers presenting essential data and defining the main issues of each subject.

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A \$1 Per Gallon Gasoline Tax, Without Tears

By Jessica T. Mathews

Staring us in the face is a relatively painless solution to the budget crisis. It would not only erase the Federal deficit but greatly improve our trade deficit, stabilize the dollar, reduce dependence on foreign money, form the core of a sound energy policy, brighten economic growth prospects for all the world's oil importers, force Detroit back into healthy competition for the 30 percent share of the market it has ceded to higher-mileage imports and reduce our vulnerability to a politically motivated disruption of Middle Eastern oil.

This magic bullet is a policy package based on a gasoline tax — but not just any gasoline tax. The small — 10 to 20 cents per gallon — short-term tax recently urged by, among others, Alan Greenspan, Lee Iacocca, Felix Rohatyn, economists and energy experts from all points of the political compass would not do the trick, and would be a waste of the political effort required to enact it.

What is needed is a higher tax, rising to at least \$1 per gallon, a long-term commitment to the tax (at least 10 years) and a gradual phase-in of the tax (giving the economy time to adjust). Why, in the face of broad support for a gasoline tax, which would confer many benefits, has one not been adopted?

In addition to natural opposition to

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any new tax, many Americans fervently believe in their God-given right to cheap gasoline. Except for Canada's economy, America's is alone among the seven major economies of the non-Communist world in having a gasoline tax of less than \$1 per gallon.

In most, the tax is well over that amount. In some, it is closer to \$2, while today America's combined Federal and state tax amounts to about 25 cents. In 1987, Americans paid, on average, 82 cents per gallon for regular gasoline, tax included (today, they pay about 92 cents). By contrast, in 1987 the Italians paid \$3.71 per gallon; the French, \$2.95; the Japanese, \$2.89; the British, \$2.24, and the West Germans, \$2.09.

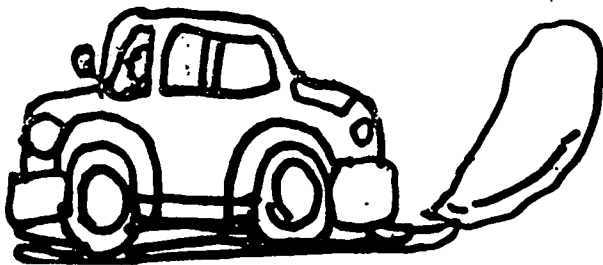
Far from hobbling the economy, a comparable tax would make the United States more competitive with the most successful economies — those that have already recognized the long-term need for high energy efficiency.

Americans do not realize that cheap gasoline is crippling Detroit in its competition with European and Japanese producers and that several hundred thousand jobs will eventually be at stake if American industry cannot produce high mileage cars.

It is widely but erroneously believed that the poor drive more than the rich, and that a gasoline tax would thus be highly regressive. The oppo-

site is true. All three measures — the average number of vehicles per household, the number of miles driven per household and motor fuel expenditures per household — show that car use rises steeply with income. The average family with income between \$5,000 and \$10,000 per year spends \$453 on gasoline; the average family with \$35,000 or more in household income spends \$1,639.

Fuel-efficiency standards must rise to 40 miles per gallon.



There is the argument that gasoline represents a disproportionately large share of a poorer family's budget. This is only partly true.

The Congressional Budget Office recently analyzed seven Federal excise taxes and found that "for all but the highest [over \$50,000] and lowest [under \$5,000] income classes, the tax on gasoline would have the same affect on all income classes." It said: "Increases in all other excise taxes [except that on wine] would be at least marginally regressive." Thus, the gasoline tax is not the unfair tax it is thought to be. Still, a large increase would hurt poor families, and they should be exempted.

Another myth that has blocked a tax is the belief that it would be unevenly felt among the country's regions. Actually, people in the spacious West use only 9 percent more gasoline on average than do people in the crowded Northeast. Yes, there is a difference, but it is much smaller than generally believed and can be offset with the right policy mix.

Opposition stems from the economic plight of our oil industry, which makes America's oil states and their

representatives implacable opponents of any energy policy that does not address their needs.

Our oil resources are aging and expensive. The very large fields, and most easily accessible oil, have already been exploited. Production in the lower 48 states has been declining for 18 years: Alaskan production will soon begin to do likewise. The resulting growing dependence on imports makes the oil industry's trouble our whole country's concern.

What the country needs is a price floor that allows a safe level of domestic production and enough confidence in tomorrow's price to support an adequate level of research, exploration and capital investment.

The right tool is a variable import fee that would take effect when the world market price falls below \$18 per barrel and disappear when the price rises above that level. This is a fee the country can afford and that, coupled with energy efficiency incentives, can promote prosperity.

By far, the most important of these incentives is a determined national policy to achieve high-mileage cars. The auto accounts for half of all United States oil used, and there is a vast technological potential for savings.

New American cars average 26 miles per gallon, and the automakers oppose any further increase in the fuel efficiency standards that boosted them this high. Yet Volvo and Peugeot each have passenger-car prototypes that get 70; Toyota has one that gets 98, and late last year Renault road-tested its 124 miles per gallon prototype. The best of these new designs also promise improved performance, safety, comfort and lower emissions.

Closing this widening gap between Japanese and European manufactur-

Over all,
in 1987
we paid
82 cents
at the pump.

ers, and Detroit, requires a policy that affects both consumer preferences and Detroit's view of the future.

That means a long-term commitment to a gasoline tax coupled with a rise in fuel-efficiency standards from today's 26 miles per gallon average to

Meeting this modest goal would put us 10 years behind France, which has a voluntary 39 miles per gallon standard for 1990. But it would mean an oil savings of well over one million barrels per day for America. If other nations followed suit, energy savings worldwide would be immense, keeping oil prices low for everyone.

Putting all of this together, a successful, politically feasible package looks like this:

1. A 10-year gasoline tax to be known as the National Solvency Tax, starting at 10 cents per gallon and rising to \$1 per gallon, with the revenues earmarked for deficit reduction.

2. An exemption for families with household income under \$10,000, administered through the food stamp bureaucracy, with eligibility determined by income, and possession of a driver's license and motor vehicle registration.

3. An import fee on imported crude oil figured at \$18 per barrel and the price equivalent on refined products.

4. Average fuel economy standards rising to at least 30 miles per gallon for cars and 35 for light trucks by the year 2000.

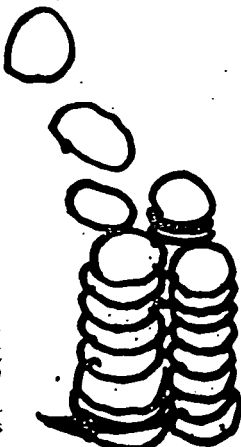
Gasoline prices are now so low — nearly half of what they were in 1981 — that the first several years of the tax would have negligible economic impact. In later years, the cost to individuals would be substantial. But these costs could be reduced to zero — or turned into large savings — if the consumer was able to buy a high-mileage car, and chose to do so.

For example, in 1985, the average household spent \$1,274 per year on gasoline, driving a 16 mile per gallon vehicle. Over 10 years, that cost would be \$12,740, and the tax would add \$5,940, for a total of more than \$18,000. However, if in the fifth year, Mr. Average traded in his car for one that got 32 miles per gallon, his total cost would drop to \$12,428 — wiping out the tax completely and putting an additional \$312 in his pocket. A consumer who bought a car that gets 32 miles per gallon in the first year of the tax and traded it in after seven years for a car that gets 64 would pay only \$7,634 — a net \$3,000 savings!

Since 100 billion gallons of gasoline are now used per year, tax revenues would be very sizable. They would also be largely predictable, allowing sound national economic planning. The growing number of vehicles and of miles driven per vehicle means that even with very large mileage improvements per car, revenues would likely be about \$80 billion in the last year of the tax.

Revenues from the oil import fee would be much less predictable. The added profits to the oil industry would reinvigorate Western and Southwestern states' economies, partly compensating for the greater distances driven there.

Finally, the largest benefit would be to the nation's security through removing potentially serious constraints on our foreign policy. □



Drawings by Douglas Florian

Representative SOLARZ. Thank you.
Mr. Randall, please proceed.

STATEMENT OF ALAN RANDALL, PROFESSOR OF RESOURCE ECONOMICS AND ENVIRONMENTAL POLICY, OHIO STATE UNIVERSITY

Mr. RANDALL. Thank you, Congressman Solarz. I appreciate the opportunity to testify before the committee and I certainly endorse the committee's judgment and the importance of these issues.

I want to start out with some rather general comments on competitiveness in general, then perhaps get to some of the issues that might more nearly be on the legislative agenda.

First, global interdependency will eventually render the idea of national security increasingly obsolete. The power of nations to control their own domains has been undermined by developments such as high-speed capital movements, communications revolution, open borders, or effectively more open borders. Environmental problems are emerging on a global scale and we have talked about some of those already.

The second point that I would like to make has been mentioned before also, and that is that the essential requirement for national security is a strong and flexible economy. I have mentioned in my prepared statement that, taken to extremes, both the pursuit of military security and the pursuit of self-sufficiency in vital products can, in fact, undermine national security.

The third general point is that a healthy environment is a major component of a strong economy. The environment is both a product and a resource. Standard of living is or should be measured in quality of life terms, and longevity, good health, a pleasing living and working environment, attractive recreation facilities, vacation destinations, et cetera, are all important components of standard of living properly measured. As standard of living increases, the demand for environmental amenities rises even faster.

Environmental resources are major national assets in the traditional sense, soil, forests, fisheries; in the more contemporary sense, waste assimilation, restoration of the carbon-oxygen balance, health of the human work force, and in new ways, ways we are just starting to think about. Competitiveness in a high-technology world will depend among other things on the capacity to attract highly trained immigrants, and environmental quality will be a major part of that story.

That leads to a couple of kind of punch lines. First, it is simply incorrect to think of environmental programs as always a cost, a drag upon competitiveness. Second, I think it is important to develop national accounting systems and incorporate environmental services into the product account and the enhancement or depletion of environmental assets into the net investment accounts. And from the organization that Jessica Mathews comes from, there has been some pioneering work in doing that, and it has shown big differences to those accounts.

While environmental services and amenities are genuine goods and environmental resources are valuable assets, it is still valid to ask whether we are allocating resources to the environment in

roughly the right way or not. In general, I would say that I do not believe the United States is approaching overinvestment in environmental protection. As far as I can see at this point, the programs that we have entered into for environmental purposes have produced benefits in proportion to their costs, benefits probably exceeding costs.

Nevertheless, there are some programs that are obviously relatively inefficient. Those programs that require particular technologies do not provide opportunities for innovation in pollution control from the private sector, and impose standards nationwide where the problem may vary with local conditions might be examples.

And third, on this point, continued monitoring of benefits and costs of environmental programs is appropriate and ought to be encouraged.

My fifth general theme is the economic success of Japan and the newly industrialized countries on the Pacific Rim has been spectacular, and we have now become concerned with persistent negative trade balances with those countries. But I guess I want to suggest that their success has been built on some things which I think are not sustainable in the long run, or at least not their success, but their rapid success. Their increasing trajectories are developed on things which are maybe not sustainable.

The U.S. umbrella, a relatively paternalistic social and political environment, has been able to maintain high rates of savings, profit, and investment while restricting consumption to a lower proportion of gross domestic product than you would tolerate in this country.

And a willingness on each of those countries to serve for perhaps a generation long as an environmental sink, that is, to permit very high pollution loads for 10, 20 years in order to promote production, exports, and capital accumulation. Japan did that in the 1950's and 1960's, Taiwan in the 1960's and 1970's Korea also. Now, Taiwan is tired of serving that role and is, in fact, using Thailand and Malaysia for that purpose. But we see rapid capital accumulation obtained in those countries in part at environmental cost and we see an unwillingness for them internally, domestically in those countries, to continue to bear that cost for more than 20 years or so.

While we worry in terms of competitiveness about how the Japanese are doing, and it is true that they are walking around the world with large sums of money to buy things, it is also true that they provide their citizens about 50 percent of the U.S. standard of living in purchasing power parity terms. And while we worry about competitiveness—and I think we should, particularly from the human capital-technology point of view—if we correct the American accounts for purchasing power parity and for the level of environmental quality we deliver to our citizens and for the level at which we sustain our environmental resource base, I do not think we are doing so badly. I guess I am making what seems to me a fairly strong statement against any sacrifice of the environment or the resource base because of misplaced fears about competitiveness.

My sixth major point concerns what is going on in Central and Eastern Europe. Well, first, in the European Community, by and

large, America is ahead of the European Community in terms of the environmental performance of its industrial base. And, of course, Eastern Europe, the disintegrating Comecon countries, have demonstrated to us that it is possible simultaneously to perform abysmally both economically and environmentally.

And there are going to be major needs for capital to make important improvements in the European Community, environmental performance and to completely rebuild the industrial and environmental base of Central and Eastern Europe. And it seems to me that America is going to enjoy some advantages in that process because I believe we have become the leader in environmentally benign technologies, just as we are not the leader in energy use technologies. There will be an opportunity here, and I think it will be an opportunity that we should pursue entrepreneurially through the market and in some cases through subsidies. We may need to subsidize and encourage Eastern Europe in these respects in part to guarantee ourselves a place in their markets.

The last of my general themes is rising economic expectations in the Third World. We have smiled upon that. It has benefited us politically in recent years, and the expectation that it would do so has been part of the rationale for our international development efforts.

Nevertheless, with rising populations, with rising industrial capacity, we can expect major accumulations of greenhouse gases and of traditional industrial pollutants.

First World countries cannot do much and have no moral authority to do anything to slow down this process, but we do have a genuine interest in promoting and quite likely subsidizing the adoption of environmentally benign technologies in the Third World, energy saving technologies, pollution minimizing technologies.

There is a great danger that the United States and First World attention to Central and Eastern Europe will divert funds from the tropical countries and other Third World countries that desperately need help in managing deforestation, desertification, and extinction of species and whole ecosystems.

Now, to the more specific questions, the two most important problems facing the United States and the world. For the United States I listed toxic and hazardous wastes, and listed that as largely a domestic problem for us; that is, what we do does not affect many other countries.

The very same problem exists all over Europe and in Europe it is an international problem because of the Mediterranean Sea and the Baltic Sea as sinks for large numbers of countries with different economic systems, because of river systems that flow through different countries, et cetera. And so, these same problems show up as international problems from, say, the European perspective.

I listed global climate change, greenhouse gases, depletion of upper atmosphere ozone as a major U.S. problem, but it is clearly a world problem.

And for the world, I listed the human encroachment on national areas, including tropical rain forests and sloping terrain with fragile soils, and I listed the pressures on natural resources and the capacity of the environment to assimilate wastes will accompany industrialization and the improvement in standard of living. In the

Third World, these problems are both related to the climate change problem, and they are both related to the problem of rates of population growth in the Third World.

Perhaps this is a good place to stop, and I would be pleased to answer questions.

[The prepared statement of Mr. Randall follows:]

PREPARED STATEMENT OF ALAN RANDALL

I appreciate the opportunity to testify before this Committee. The premise of these hearings -- that in a post-cold-war world, national security will come to depend less on military might and more on a robust and competitive economy -- is a sound one. The Committee and Congressman Solarz exhibit great foresight in raising these important and far-reaching issues. Of necessity, given the wide-ranging topics under consideration here today, my responses will be rather more general than specific. But at this stage in our national thought process on these questions, perhaps it is general insights rather than specific answers that are needed.

First, I offer several general observations. Then, I have some specific comments on the questions addressed to today's witnesses.

I. General Observations

1. In the long run, global interdependency will render the idea of national security increasingly obsolete. First, the power of nation-states to control their own domains has been undermined by such developments as instantaneous capital movements around the globe, the communications revolution, and borders increasingly open to people and goods (including illicit goods). Second, environmental problems are emerging on a global scale such that nations are unable independently to either implement effective solutions or escape the consequences of failure to solve the problems. Potential global climate changes due to greenhouse effects and depletion of the ozone layer would be obvious examples of such problems. Less obvious, perhaps, is the global significance of the threats to biodiversity and soil and timber resources. Biodiversity is a planetary heritage; wholesale destruction of timber will upset the global carbon dioxide balance; and, while loss of topsoil is a local but widespread phenomenon, its effects will be felt worldwide since national boundaries will be unable to contain the people displaced. Solutions must be implemented on a global scale.
2. Global interdependence in the long run does not trivialize the idea of national security in the 1990s. The essential requirement for national security is a strong and flexible economy.

Military expenditures, by weakening the economy, may actually detract from national security. While direct military spending has accounted for more than 6 percent of United States GNP since the Second World War and the full cost of the military effort is surely greater than that, the comparable figure for Japan is 1 percent. The military component of total public and private research has been about 45 percent

in the U.S. but only about 1 percent in Japan. There seems to be some merit to the claim that Japan, basically a nonparticipant, has been the big winner of the cold war.

Self-sufficiency in vital products – food, fiber, energy, and strategic materials – is often promoted for national security purposes. However, if self-sufficiency requires the diversion of resources to grossly inefficient industries and activities, it may well undermine national security by weakening the national economy. Self-sufficiency in exhaustible resources is self-defeating for nations with limited reserves, since it accelerates the rate of depletion.

3. A healthy environment is a major component of a strong economy. From a national perspective, the environment is a product and a resource. Environmental programs become a net cost only when the value of things we sacrifice to maintain and enhance the environment exceeds the value of the environmental amenities and assets created.

Standard of living is, or should be, measured in terms of quality of life. Longevity, good health, a pleasing living and working environment, and attractive recreation facilities and vacation destinations are all important components of standard of living, properly measured. As standard of living increases, the demand for environmental amenities rises even faster.

Environmental resources are major national assets in the traditional sense (soil, forests, fisheries), in a more contemporary sense (waste assimilation capacity, restoration of the CO₂-oxygen balance, and the health of the human workforce), and in ways we have scarcely begun to think about (competitiveness in a high technology world will depend on a nation's

capacity to attract highly trained immigrants, and a healthy and pleasing environment will be a major attraction).

- Thinking of the environment as always a cost, always a drag upon competitiveness, is misleading. Environmental services contribute to a nation's standard of living, and environmental assets are an integral component of its resource base. Nevertheless, some environmental investments bear fruit only in the long run. In these cases, current generations may suffer current losses in competitiveness. International cooperation in environmental policy should always be encouraged as preferable to "beggar thy neighbor" strategies.
 - Development of national economic accounting systems that incorporate environmental services into the product account and the enhancement or depletion of environmental assets into the net investment accounts is to be encouraged. For example, a pilot study along these lines (by Robert Repetto of the World Resources Institute) showed that, for 1971-84, Indonesia's impressive 7.1 percent growth in gross domestic product was actually about 4 percent when corrected for resource depletion. Similar corrections reduced Indonesia's buoyant gross domestic investment substantially in most years. A complete system of such accounts would do much to provide each nation with a more realistic picture of its progress, and clarify the issues of international competitiveness.
4. While environmental services and amenities are genuine goods and environmental resources are valuable assets, it is still valid to ask whether

there is a resource allocation problem in U.S. Have we, in the U.S., allocated too much of our resources to producing environmental goods and protecting environmental assets? Are we in imminent danger of doing so? Are the costs of environmental protection in danger of exceeding the benefits?

- As one who has some experience in estimating environmental costs and benefits, I do not believe that the U.S. is approaching overinvestment in environmental protection. The measurable benefits of many major environmental programs are equal to or greater than their costs; and the benefit estimates typically understate the full benefits.
- Nevertheless, some particular environmental protection programs are blunt instruments that are inherently difficult to fine-tune. Examples include the new source performance Best Adequately-demonstrated Control Technology requirements in air pollution control, and the many cases where rigid standards and/or prohibitions are imposed with little regard to local environmental conditions. There are many instances of resource misallocation at the margin. Reforms to make environmental protection as cost-effective as possible should be pursued, consistent with the overall goals of environmental protection. Market-based incentive approaches have much to recommend than in this respect.
- Continued monitoring of the benefits and costs of environmental programs is appropriate and should be encouraged.

5. The economic success of Japan and the newly industrialized countries (NICs) in Asia in the post-war years has been spectacular, so spectacular that the United States has become concerned about its persistent negative trade balances with these countries and with Japan's increasing clout in international financial markets.

The success of Japan and the NICs can be attributed to many things, including cultural, social, and political factors. Without detracting from such factors, however, I want to draw attention to some circumstances that I believe will ultimately limit the growth of economic power in these countries. Among the factors that explain Japan's economic progress are continuing U.S. guarantees of Japanese military security; U.S. subsidies, direct investment, and favorable trade arrangements, especially during the early years; a relatively paternalistic social and political environment in Japan, that was able to maintain high rates of savings, corporate profits, and investment, while restricting consumption to a lower proportion of GDP than would have been tolerated in the U.S.; and a Japanese willingness to serve for about a generation as an environmental sink, i.e., to accept very high pollution loads in order to promote production, exports, and capital accumulation. A similar combination of factors helps explain the rapid growth of the NICs.

However, these factors are not sustainable in the long run. Rising wealth brings a demand for improved environmental amenities. First Japan, then Taiwan and South Korea began to take environmental protection seriously. While Japan is a heavyweight in international financial markets, its citizens enjoy about one-half of the U.S. standard of living, in purchasing power parity terms. It is predictable that the citizenry will demand a greater share of their nation's output, which will reduce the Japanese savings rate and perhaps its productivity growth from their unsustainably high levels.

- The economic progress of Japan and the NICs is less of a threat to U.S. competitiveness than might appear, since it has been based on environmental policies and socio-political conditions that do not seem sustainable over the long haul.
 - It would be unfortunate if exaggerated fears of economic competition from the "Asian Tigers", combined with a false definition of competitiveness that ignored the production of environmental goods and the enhancement of environmental resources, led the U.S. to back away from its basically valid environmental protection objectives.
6. The really big news, it seems to me, concerns political and economic harmonization in the European Community, and the relationships that will emerge between the EC, the independent western countries such as Austria and Sweden, and the newly liberated countries of central and eastern Europe. These events have been viewed from the U.S. largely as opportunities. Surely, there will be disturbances and disappointments along the way, but I expect that the opportunities will in fact more than counterbalance the challenges. It is important that the U.S. be active, in the public and private sectors, to make the most of these opportunities.

In some respects, western Europe has not kept pace with the U.S. in pollution control and environmental protection. While the EC has rejected formal harmonization of environmental policies, we can expect continued pressure from the EC on member nations for improved environmental performance.

The Soviet Union and the disintegrating Comecon bloc demonstrated that it is possible to manage the system of production so as to produce

simultaneous economic and environmental disaster. Thus, there is an opportunity to start over, with new, more productive and cleaner capital equipment. It seems to be in the U.S. interest to participate actively in rebuilding these economies.

- Given its history of environmental protection, one would expect the U.S. to be a leader in pollution control technology and environmentally benign production systems. We should aggressively pursue opportunities to serve emerging demands for these technologies in Europe and elsewhere.

7. Rising economic expectations in the Third World have benefitted the U.S., geopolitically, as many developing countries have sought to emulate the U.S.'s liberal political and economic institutions. This, of course, has been an important part of the rationale for America's international development efforts in the post-war period.

Nevertheless, rising expectations in populous Third World countries threaten the global environment. If one worries about carbon gas pollution, the idea of 1.2 billion mainland Chinese with the world's largest, but unfortunately quite dirty, coal resources is a little scary. Likewise, the distinct possibility that 900 million Indians could soon embrace the automobile age.

- First World countries can do little, and have no moral authority in any event, to slow down modernization in the Third World. They do, however, have a genuine interest in promoting (and in some cases subsidizing, if necessary) the adoption of environmentally benign technologies in the Third World. Economic growth has become less fossil fuel

dependent in the First World since 1973, and will continue to do so. It is in our interest to help the Third World minimize its dependence on fossil fuels for growth and development, by developing and sharing conservation and alternative energy technologies.

II. The Questions

Now, I will address the specific questions provided to the witnesses. The questions are broad-ranging and properly so. Complete answers may be too much to ask for but I hope I can provide some helpful insights.

Q1: Identify the two most important environmental problems facing the U.S., and the World.

I believe the following environmental problems are especially important.

a) For the United States

- (i) Toxic and hazardous wastes. This is largely a domestic problem for the U.S. and its solution will be expensive. I don't see it as a major national security problem. Since other nations have similar problems but, in many cases, are not so acutely aware of them, America may well be (or become) the technological leader in remediation. This, of course, would be favorable for national competitiveness.
- (ii) Global climate change due to greenhouse gases and depletion of upper atmosphere ozone. The increasing concentration of carbon gases and the continuing release of CFCs is well documented. The long-term effects in terms of climate change are more speculative. In general, we have computer simulations with disastrous outcomes.

but less confirming evidence from actual observations. Nevertheless, the potential effects from these problems are enormous and pervasive, so the threats should be taken seriously. The national security implications are speculative, but could include the following:

- increasing redundancy of the very idea of national security in a potential global environmental crisis.
- major changes in economic comparative advantage among countries, as temperature and precipitation patterns change in ways not fully predictable, and the oceans rise.

b) For the world

- (i) Human encroachment on natural areas, including the tropical rainforests, and sloping terrain with fragile soils. Effects include: disturbing the oxygen-CO₂ balance, destruction of biodiversity, and loss of soil and timber resources; loss of soil pollutes streams, silts reservoirs, and undermines hydro-electric alternatives to fossil-fuel-fired generators.
- (ii) The pressures on natural resources and the assimilative capacity of the environment that will accompany the inevitable and desirable industrialization and improvement in standard of living in much of the Third World.

Underlying both of these problems is the high rate of population growth in much of the Third World.

These problems impact U.S. national security by

- contributing to global climate change.
- increasing the demands of the world's destitute masses for relief and, given the United States' porous borders, immigration to the U.S.
- perhaps causing a major increase in economic and political instability in much of the world. Nuclear weapons delivery technology is becoming less expensive, making Third World political instability a greater threat to national and global security.

These problems may also offer opportunities for the U.S., given its status as a leader in developing environmentally benign technologies.

Q 2,3,6,8: Fossil fuels, national security, and related environmental issues.

These questions share a concern about use of fossil fuels, increased reliance on imported fuels, pollution from fuel combustion, oil spills, and oil exploration and extraction in environmentally sensitive areas. First, let me state a few general principles that may help us think through the issues.

- (i) Fossil fuels are a transitional source of energy. Since they are finite, high standards of living for an increasing proportion of the world's growing population requires that we develop more energy-efficient modes of production and consumption and more sustainable energy sources. Economic theory tells us that impending scarcity of fossil fuels will be signaled by rising real prices, which will provide

incentives for conservation and alternative energy sources. But, higher real prices, if they were to occur suddenly, would cause genuine hardship and economic disruption. Given the extent of the unknowns, economic theory does not provide very strong arguments against a fossil fuels tax, especially if the proceeds were targeted toward research on conservation and alternative energy.

- (ii) A policy to increase domestic production of oil and gas in the name of national security has an in-built contradiction: with finite reserves, increased extraction will hasten the economic exhaustion of what reserves we have. What is needed for national security is not more current extraction of domestic reserves, but more capacity for extraction in some future emergency.
- (iii) Oil spills and pollution from fuel combustion are real costs of using fossil fuels. Exploration and extraction in environmentally sensitive areas are real costs of domestic production. The fact that future oil developments seem to be concentrated in environmentally-sensitive areas provides evidence that these costs are rising. At the very least, these costs should be reflected in the cost of fuels to consumers.

With these principles in mind, I will comment on the Committee's specific questions.

Q2: Alternative fuel and pollution tax proposals.

Higher taxes on all oil and gas used in this country to stimulate conservation and alternative energy sources may be justified. We need the revenue, and it may be prudent to provide incentives for conservation and alternatives energy before the market does.

Taxes targeted on imported oil would be undesirable since they would accelerate depletion of domestic reserves.

Taxes on polluting fuels may be appropriate. Where regional impacts may be disproportionate – e.g., in the case of sulfur taxes on midwestern coal – compensation mechanisms should be implemented.

Q4: Laws and regulations concerning oil spills.

Current laws and regulations do not appear to be adequate to cope with oil spills. However, there is a "wild card" in the deck. Laws that allow public trustees for damaged natural resources to sue for money compensation may yet provide substantial incentives for careful transportation. But, it is too early in the litigation process to know whether the resulting damage settlements will be large enough to change transportation practices. In the interim, laws and regulations need to be tightened, at least to ensure a more adequate emergency response to spills when they occur. The oil industry and the users of petroleum products should bear the lion's share of the costs.

Q6: National security and oil imports.

National security with respect to interruptions in the supply of imported oil is enhanced by

- (i) reducing dependence on oil in general
- (ii) maintaining large domestic reserves of oil in the ground
- (iii) maintaining an adequate stock of capital in domestic exploration and extraction
- (iv) maintaining a large domestic reserve of crude oil in storage.

Perhaps the key point, here, is that (ii) and (iii) are in conflict. Increased domestic production maintains the capital stock in the domestic oil industry but depletes domestic reserves. This suggests (iv) maintaining large crude oil reserves as a buffer against short-term interruptions in imports, and (i) reducing dependence on oil, generally, as a long-term strategy.

Q8: Oil deposits in environmentally-sensitive areas.

Oil deposited in environmentally sensitive areas is high-cost oil, if the environmental costs are recognized. Current laws and political-administrative decisions evince an attitude of public skepticism toward exploiting these deposits, an attitude that I believe is basically correct. One can ask whether institutions can be developed to minimize the environmental costs by confining oil development to the less-sensitive and more valuable of these sensitive environments and requiring strict environmental safeguards where development is permitted. I would counsel continued vigilance, to insist that any development meet these conditions.

Q3: Global warming.

The evidence of increasing carbon dioxide accumulations in the earth's atmosphere seems sound, while recent evidence shows no detectable global warming, yet. Human encroachment on the tropical forests and rising standards of living in the Third World will surely exacerbate the accumulation of greenhouse gases. In the case of encroachment on the tropical forests, there is more than the balance between oxygen and carbon dioxide at stake: for example, the loss of biodiversity could be catastrophic. Let me offer the following observations:

- (i) By preserving tropical forests, Third World countries will surely benefit themselves: on its own narrow terms, settlement in tropical forests is often uneconomic. In addition, they will provide important public goods --

biodiversity, and protection against climate change – for the world at large. There is a strong case for the rest of the world, and especially the richer countries, sharing in the costs of preserving these forests.

- (ii) The inevitable and desirable increase in standards of living for much of the Third World implies more greenhouse gas emissions and more CFCs that deplete upper atmosphere ozone. The U.S. is a leader in technologies for emissions reduction and CFC-free refrigeration. The U.S. should do everything in its power to encourage the world-wide adoption of these technologies, including: encouraging international agreements; aggressive marketing of its technologies; and technology sharing or subsidization in the case of poorer countries.

Q5: Nuclear power in the U.S. energy strategy.

The trade-off that matters most in the U.S. in the short-term is that between very-long-lived nuclear wastes from current nuclear power technology and the short-lived but environmentally destructive effects of burning coal. Several commentators have noted the apparent inconsistency of discouraging nuclear power plants because of dangers that are potential and speculative, while such a policy serves to encourage coal-fired power plants whose emissions are known contributors to human mortality and morbidity. Other commentators sympathize with what appears to be a rather general human aversion to introducing technologies that are generically different from familiar technologies and introduce the possibility (no matter how remote) of catastrophic results.

The public demands very strong assurances that the risks from nuclear power has been minimized, by using the safest possible technologies and by locating nuclear plants at a safe distance from population centers. I cannot quarrel with these demands.

For the longer term, potentially much less dangerous nuclear technologies such as fusion should be encouraged.

Q7: Market-based approaches to environmental policy.

Market-based approaches to environmental protection have several major advantages over command-and-control approaches:

- (i) They encourage least-cost pollution abatement.
- (ii) They encourage innovation in pollution control and investment in less-polluting capital equipment.
- (iii) They provide mechanisms for continued economic growth and resource reallocation while maintaining pollution control targets.
- (iv) Remaining environmental costs are imposed on the polluters and thus reflected in the prices of goods and services.

Market-based approaches are especially appropriate for familiar pollutants with well-established tolerance levels. For new and unfamiliar environmental threats, where tolerance levels have not been identified and the public perception is of very low probabilities of disasterous damage, market-based approaches seem less suitable.

If one believes that environmental policy is best viewed as a matter of choosing an optimal allocation of resources among material goods and services and environmental services and amenities, and implementing an efficient set of policy instruments to attain that optimal mix, market-based policy instruments have much to recommend them. The use of market-based instruments can and should be expanded. Given a reluctance in the U.S. to impose direct pollution taxes on

polluters (a reluctance not shared by, e.g., The Netherlands), the methods of transferable pollution "rights" – offsets, banks, and bubbles – pioneered in air pollution control could be adapted for wider application.

Economists have been in consensus for the last quarter-century concerning the general desirability of market-based environment policy strategies. However, these approaches have made only modest inroads into the policy packages implemented.

Opposition to more pervasive use of market-based approaches comes from several sources, including some regulators, attorneys, and regulated firms. I want to focus on the opposition from many environmentalists. The argument seems to be that the environmentalist agenda is to develop a whole new, post-industrial public morality, in which destruction of the environment is seen as fundamentally immoral. To treat environmental protection as simply a resource allocation problem, a matter of choosing the right mix of material and environmental goods would – some environmentalists believe – undermine this moral agenda.

Economists, wondering why market-based approaches have been adopted only hesitantly despite their obvious advantages, need to develop a sympathetic understanding of the environmentalist position.

There seems little doubt that a new environmental consciousness has spread through American society in the last two decades. This consciousness is of positive value, since it supports public and private environmental enhancement efforts and mobilizes volunteerism as well as self-interested adaptation to market incentives and/or the regulatory environment. Further, arguments that environmental destruction is immoral have played a part in developing this environmental consciousness.

There will be continued resistance to market-based environmental instruments if they are seen as destructive to the emerging environmental morality, as they might be, if characterized as instruments that let those who can afford it pollute all they want. Supporters of market-based approaches need to educate the skeptical. But they also need to develop market-based instruments (and rationales for them) that reinforce rather than undermine the emerging environmental consciousness and morality.

Representative SOLARZ. Well, thank you very much for some very thoughtful testimony.

IMPACT OF MAJOR ENVIRONMENTAL PROBLEMS ON NATIONAL SECURITY

Ms. Mathews, you talked about three major environmental problems confronting the world—the atmospheric problems which are a part of the global warming effect, population increase, and I think the loss of biological diversity. How do each of these impact on the national security of our own country?

Ms. MATHEWS. Well, if we start with global warming, the expected impacts—and I think it is important always to add the caveat that there are a great many scientific uncertainties about this issue that remain, but all the studies that have been done suggest that same range of impacts, of which the most important, sort of general conclusion is that mankind wherever he lives, rural, urban, industrial, developing, is far more dependent on climate than we have ever before understood, and that as you start to look at the consequences of climate change, particularly rapid change, which is what we are expecting—in the history of the planet we are looking at change far more rapid than anything that has happened—it appears that everything will be affected.

Terry Davies mentioned agriculture and forestry. Yes. The effects on unmanaged ecosystems could be devastating with consequences that we do not know, species extinction, forests that cannot move to where their new climate allows them to be. When we had the drought 2 years ago in the Midwest, we found the Mississippi River was a parking lot for barges, and our entire agricultural export system was disrupted. In fact, the 1988 drought was kind of a nice example in a very microsense of one sort of climate change.

It is not a very specific answer, but I think actually the best answer to that question I have ever heard was one that Senator Bennet Johnson gave when he introduced his Global Warming Act and made references to a Louisiana preacher who said that if God means anything, he means everything. And, indeed, if greenhouse warming is what we think it is, it probably does mean everything.

Representative SOLARZ. Hasn't the world gone through ice ages and hot ages in which there have been major impacts on the environment? And isn't this part of the sort of cycle of life on the planet? If there were no greenhouse effect, wouldn't there be another ice age?

Ms. MATHEWS. If there were no natural greenhouse effect, there would be no life on the planet. The problem is the unnatural part of the greenhouse effect, which is coming from man-caused anthropogenic emissions of greenhouse gases.

The ice ages that we have been through are different in two respects. One is that in these terms they happened very slowly. The onset is very slow. They happened over geological time rather than human time. And second, the actual amount of the warming that we are looking at is far greater than the changes that have come before back about 150,000 years. And mankind as a species emerged about 40,000 years ago. So, we are looking at changes that

dwarf anything certainly in the history of the human species on the planet and that may exceed anything in rate even before.

Life will probably persist, at least if we stop it at some still manageable level below 15 degrees centigrade or something, but at that level of warming, it probably will not include mankind.

IMPACT OF POPULATION INCREASE ON NATIONAL SECURITY

Representative SOLARZ. How does the population increase impact on our national security?

Ms. MATHEWS. Again, bringing down fertility rates is clearly linked essentially to raising economic standards of living. It has always been the case. And there is kind of a race that has to go on.

And the question is at current rates of growth, which are in absolute terms larger than anything that has come before—the world is growing by about 94 million people a year now, far larger in terms of absolute numbers than anything in history—whether the developing countries will ever be able to take off in an economic sense and get the economic development that will then bring down the population growth rates. There is a cyclical problem.

If they cannot, then there are countries facing economic chaos, which will inevitably lead to political chaos, that affects our economic security in a selfish sense, simply in terms of our export markets, and in a broader sense because we know now that the prospects for all developing countries economically are tied to a global market. But our exports to developing countries are about 40 percent of our total. At least they were before the debt crisis.

So, there is both the selfish interest, and there is I think also a moral component when you consider that by the end of this decade, the developing countries will be home to 80 percent of the world's population so that the percentage of the world that lives in the developed countries will have been halved since the end of World War II. It is a huge change, and at some point, the developed world becomes such a small island in a sea of suffering, that I think the political dynamic changes in the world—but certainly for population growth—

Representative SOLARZ. You mean at the end of World War II, 40 percent of the population lived in basically Europe and North America?

Ms. MATHEWS. Yes, and by the year 2000, it will be down to about 20 percent. It is a huge demographic shift.

Representative SOLARZ. Do you want to add anything to what has been said just now, Mr. Randall?

Mr. RANDALL. No.

REDUCING ENERGY USE

Representative SOLARZ. You have made the point that we need to substantially reduce our energy use, both as a way of providing for a more efficient economy and also as a way of dealing with the global warming problem. How do we go about doing that?

One suggestion you have made, Ms. Mathews, is to have a very large gasoline tax. Any other ways?

Ms. MATHEWS. Yes. The second way you do it is to go straight for the electrical sector where there are very large and very low cost—

Representative SOLARZ. Your least-cost idea.

Ms. MATHEWS. My strong feeling is you start with the cheapest options first, which is one of the problems I have with the administration's move toward this reforestation program, which from everything, just from bits we know, is one of the more expensive ways of dealing with carbon.

There are many kinds of options for reducing electricity needs which stem from changing one's kind of vision as to whether what you need in life is energy or the performance of energy services. We do not need a certain number of kilowatthours in this room to see each other. We need a certain amount of light. And the question is, how can we most efficiently provide that light?

We now have what are called screw-in fluorescent bulbs, which go into the same sockets that incandescent bulbs go into, that use 20 percent of the energy of the incandescent, and because they produce so much less waste heat, they also reduce the air-conditioning load. Lighting is a quarter of our total electric demand in this country, of all our electricity needs. So, if you were to do enough retrofitting with these light bulbs, you could cut it in half rather quickly. So, that is a 12 percent cut just like that.

These things pay for themselves. They are much more expensive than a regular bulb when you buy it, but they are far less expensive over the life cycle of the bulb because they last ages.

Representative SOLARZ. So, why don't people buy it?

Ms. MATHEWS. The reason people don't buy it—the first reason is because they are not widely on the market.

The reason they are not widely on the market is that consumers insist on a payback period. Consumers are not rational economic actors, as economists would all like us to be, and they are far more sensitive to first costs than they are to life cycle costs. What the data show is that they tend to insist on a 2- to 3-year payback time for an investment, whereas energy producers are happy with a 15-year payback. When you build an electric powerplant, you would be very satisfied if you get your investment back and make a profit in 15 years. So, in the gap between 2 years and 15 years is this huge period in which all these low-cost options that cost less than the electricity we are providing sit. What we have to do is arrange our economic signals so that those are attractive to consumers and to electric producers.

The way to do that is to help utilities behave as suppliers of energy services rather than of kilowatthours. And to do that, you simply have to regulate them. When you need to produce more energy you say look at all the options, one of which is building a new plant, and the others of which are different ways to retrofit existing buildings, et cetera. If those retrofit options are less expensive than building the plant, one, you ought to do it and, two, we will regulate you so that you make a profit doing it. Otherwise it is counterproductive for the utility to take those options under current regulations. So, that is one.

The broad answer to your question is that to do the energy efficiency things we know about that would be economically attractive

to the country as a whole, you need a mix of pricing changes and regulatory actions.

Representative SOLARZ. How do we get that here at the Federal level?

Ms. MATHEWS. In the transportation sector, I think we need a gasoline tax, and to raise the CAFE standard, the automobile efficiency standard, from its current 26-per-mile-per-gallon level to 40-miles-per-gallon for the year 2000.

Representative SOLARZ. Over what period of time?

Ms. MATHEWS. I think we could do 40 miles per gallon by the year 2000, 35 for light trucks.

Representative SOLARZ. And what has prevented that?

Ms. MATHEWS. I think that what principally has prevented it is that the American automobile industry is the most innovation averse industry in this country.

Representative SOLARZ. Why? It is obviously not something which goes with the automobile industry qua automobile industry because, as you point out, the Japanese automobile industry and the French automobile industry and the German automobile industry seem to be innovative in this area.

Ms. MATHEWS. Right. All those countries are paying somewhere between \$1 an almost \$3 per gallon of gasoline.

So long as Detroit believes and so long as the American people believe that gasoline will remain cheap, then we will remain chained to a single ground transportation option, the least efficient one, which is basically the single passenger automobile.

Representative SOLARZ. How much does it add to the cost of the car?

Ms. MATHEWS. That is the other problem. The cost of gasoline is a small part of the cost of owning and operating a car. When you add purchase price, maintenance, parking, insurance, fuel is too small a part of it at current prices to make consumers choose a car on that basis.

So, I think you do need a mix there of the regulatory signal and the price signal. The problem we have now is that the regulatory signal over the past couple of years says go up toward higher efficiency, and the price signal says go down.

Representative SOLARZ. It strikes me that, given the situation you describe, there is a certain rationality that the American automobile industry is not investing much money in developing more fuel efficient automobiles since there would not be an economic payoff for it given the relatively low price of gasoline.

Ms. MATHEWS. That assumes that gasoline will stay cheap, and I think that is extremely unlikely. We have, as you know, an aged oil resource in this country about which we can do nothing even if we drill in all the environmentally contentious areas. Our production has been declining for 20 straight years, which is something I think few people recognize. So, we are headed toward increasing important dependence, and the rest of the world, of course, is going in the opposite direction.

USING THE OMNIBUS NATIONAL SECURITY ACT TO INCREASE ENERGY
PRODUCTIVITY

Representative SOLARZ. Well, coming back to this Omnibus National Security Act which I am thinking of introducing, if I recall correctly, you seem to be saying there were two things that might fit in this that relate to your concerns about the environment as an essential element of our national security. One was a gasoline tax as a way both of raising revenue and as fostering a diminished use of automobiles.

Ms. MATHEWS. Yes, I would phrase it more broadly, an immediate move to improve the energy productivity of this economy. It is exactly the same concept as economic productivity. And I think you could even set a goal, which I think an achievable and ambitious goal would be 3 percent per year improvement for at least a decade.

Representative SOLARZ. In fuel efficiency?

Ms. MATHEWS. No, in the energy productivity of the overall economy, how much energy it requires us to produce a dollar of GNP.

Representative SOLARZ. But how do you do that legislatively? How do you legislate a 3-percent improvement?

Ms. MATHEWS. That's goal setting. That is a goal that Congress can set, as we have stated many overall goals, and then it has to be implemented through a huge number of steps. That has been the difficulty with energy efficiency all along. It requires a great many steps rather than one or two.

Representative SOLARZ. But as a practical matter, is there anything really accomplished by simply setting forth the goal unless it is accompanied by practical arrangements designed to achieve it?

Ms. MATHEWS. No, but I think it is tremendously important to set goals. Without them you do not end up where you want to be. Again, it is necessary but not sufficient.

Representative SOLARZ. Well, you say the goals should be an increase in energy productivity of what?

Ms. MATHEWS. Three percent per year. That is a little bit higher than what we achieved after the first two oil price shocks.

Representative SOLARZ. What do you mean by energy productivity?

Ms. MATHEWS. That is the amount of energy it requires to produce a dollar of GNP in this economy. And one can measure it across countries. It is not a precise comparison because it reflects—

Representative SOLARZ. In the last several years, has that been going up or down?

Ms. MATHEWS. It went up steadily from 1973 to 1986, and then when the oil price dropped, it plateaued for 1 year, and then it began to decline. And it has decline at about 3.5 percent per year since.

Representative SOLARZ. And what was the average increase from 1973 to 1986?

Ms. MATHEWS. It was 2.8 percent. The economy grew in real terms 40 percent, and energy use stayed absolutely flat.

USING THE OMNIBUS NATIONAL SECURITY ACT TO IMPLEMENT THE
LEAST-COST APPROACH

Representative SOLARZ. You also suggested this least-cost arrangement. You said that could be put into the bill.

Ms. MATHEWS. For the electrical sector.

Representative SOLARZ. Yes. What is least cost? Least cost or lease cost?

Ms. MATHEWS. Least

Representative SOLARZ. L-e-a-s-t

Ms. MATHEWS. Right.

Representative SOLARZ. OK.

Ms. MATHEWS. It is a directive to the State regulatory commissions to say you must regulate your electric utilities in the following way. One, you must require them to use least-cost planning. They must, when faced with a need to produce additional energy, investigate all the options and choose the least-cost ones first. And second, you must regulate them in such a way that if they do that and those options involve saving energy rather than producing it, they make a comparable profit in saving energy as they do now in producing it.

Representative SOLARZ. Why wouldn't they choose the least cost?

Ms. MATHEWS. Because right now the least-cost options are all energy efficiency, that is to say, instead of producing electricity, the least-cost options all are things that cut their production. And the way they are now regulated, they are not rewarded for doing that. They are economically penalized for doing it.

Representative SOLARZ. And what is the basis on which you would require States to do this?

Ms. MATHEWS. The legal basis is the interstate commerce clause and/or the policing power of the Clean Air Act.

Representative SOLARZ. And every State has a regulatory commission?

Ms. MATHEWS. Right.

Representative SOLARZ. So, this would basically be an instruction to the regulatory commissions.

Ms. MATHEWS. Precisely.

Representative SOLARZ. And what would happen if they did not meet the target? Supposing they did not do it, how would you penalize them?

Ms. MATHEWS. I suppose the Federal Government takes them to court. I am not a lawyer.

Representative SOLARZ. Generally there has to be a penalty. There have to be criminal penalties, or there have to be civil penalties, or there has to be some cutoff in aid. You lose your eligibility for something. Otherwise, what would you do if a State regulatory agency said this is a screwball idea? We do not like it.

Ms. MATHEWS. You take them to court.

Representative SOLARZ. What do you mean?

Ms. MATHEWS. They are in violation of the Federal law. So, you take them to court.

Representative SOLARZ. But you have to have a penalty.

Ms. MATHEWS. Yes.

Representative SOLARZ. What would the penalties be?

Ms. MATHEWS. I would think that the penalty would simply be forced compliance. I do not think it is comparable to, for example, failure to meet particular clean air goals where you—I do not think with this you would need that kind of—

Representative SOLARZ. Now, who is opposed to this least-cost arrangement? If I propose this, who is going to be banging down my door the next day telling me I have done something questionable?

Ms. MATHEWS. My guess would be you would be very surprised at the absence of banging. Several States have adopted this sort of approach, and there have been some extraordinary success stories where one does not have to fight about whose study is right because they are actually happening in practice. And I would be happy to give your staff some names. I am hard pressed to say where the opposition would come from. There will be parts of the utility sector that are, as always, uncomfortable with change; particularly this basic change.

Representative SOLARZ. What would be the implications of this—economically and environmentally?

Ms. MATHEWS. Well, the environmental implications are enormous because electricity production is a very environmentally intense activity.

Representative SOLARZ. So, electricity production would go all the way down. The use of fossil fuels would thereby go down. CO₂ emissions would thereby go down.

Ms. MATHEWS. SO₂ emissions would go down.

Representative SOLARZ. Global warming would go down.

Ms. MATHEWS. Acid rain would go down.

Representative SOLARZ. Right. So, those would be the environmental benefits.

Ms. MATHEWS. Right.

Representative SOLARZ. What would be the economic benefits?

Ms. MATHEWS. Economic benefits ought to be that when you improve the energy efficiency of the economy, you ought to be improving our competitiveness in terms of exports, manufactured products. You would lower consumers' electric bills. There are substantial ones. Again, I heartily agree with Alan Randall's recommendation, although he might not have put it this way, that also in your act ought to be a decision to redefine how we are calculating our national income accounts so that environmental costs are included because right now if you have an *Exon Valdez* spill, you add to GNP. The GNP of the State of Alaska went noticeably up because of it.

IMPOSE A GASOLINE TAX

Representative SOLARZ. You did this intriguing article on the gasoline tax, which I have been looking at. And I wonder here if you have not engaged in some peculiar accounting. You talk about a dollar a gallon gasoline tax, and you give some examples. And presumably this would generate a lot of money.

Ms. MATHEWS. Yes.

Representative SOLARZ. But on the other hand, you say precisely because the tax would be so onerous, people would be forced to buy cars which get a lot of miles per gallon. And then you give several

examples which you say that in spite of the increased tax per gallon, people will actually end up saving money because they will buy fuel-efficient cars, so the amount of miles they get per gallon will go up so much that they will actually be paying less in gasoline tax than they pay now.

Ms. MATHEWS. Right.

Representative SOLARZ. Well, if that is true, then we will not be making any money from the gasoline tax.

Ms. MATHEWS. That would be the case except that the number of vehicle miles driven every year is growing about 2.5 percent a year so that we are facing very large growth.

We ran some rough calculations at what would one expect over 10 years. Cars have long lifetimes also, so you would have a small turnover in that period. But we expected that by the end of that time, you might be down to about 80 billion a year. You would be way below what you would otherwise be at in terms of vehicle miles traveled, pollution, et cetera. But in terms of the 100 billion gallons that are used today, it would be a 20 percent net cut. So, it is not phony accounting.

Representative SOLARZ. How do you deal with the Los Angeles effect, the problem of cities or localities where they have really no mass transit facilities and where people have no choice but to use a car to get to work?

Ms. MATHEWS. Well, I think that is one of the reasons you have to phase this thing in because I think we can no longer exist with only a single ground transportation option. We are going to have to start to develop other commuting options. I think there are tremendous opportunities through the marriage of transportation with communications inventions.

Representative SOLARZ. Can you envision any possibility whatsoever of getting a \$1 a gallon tax enacted in this country?

Ms. MATHEWS. Yes, I can. But I think it requires Presidential leadership.

Representative SOLARZ. Even with Presidential leadership. I could see coming out of this summit with some agreement on taxes which included, say, a gasoline tax. I suppose it is not inconceivable. Maybe a 20-cent-a-gallon tax, maybe 25, 15, maybe 30-cents-per gallon, but \$1. For every penny you would get \$1 billion. You are talking about \$100 billion in increased revenue.

Ms. MATHEWS. I think that it would have to be a slowly phased-in tax. It would have to be a long-term commitment. I think that to do it, there would have to be some very blunt talk about the state of the economy, the state of the deficit, the state of the trade imbalance. I think an environmental crisis would probably help.

I do not mean to minimize the political hurdle. It is obviously enormous. But there has never been an effort to talk about the pluses, talk about the other options, and what we might do. Unfortunately the only person who speaks with a loud enough single voice to articulate that is the President.

Representative SOLARZ. Is the technology to have cars with 100-miles-per-gallon feasible?

Ms. MATHEWS. They are out there. Renault has a four passenger one that gets 124-miles-per-gallon.

Representative SOLARZ. Why don't people buy it?

Ms. MATHEWS. It is not being marketed. Those are prototypes.

Representative SOLARZ. Why aren't they being marketed?

Ms. MATHEWS. Because the price of oil is too low right now. The companies are saving them. Some are still being tested, but it does not make sense to put them into marketing at a time when the price of gasoline is lower than it has been in 70 years.

Representative SOLARZ. Why? Are they more expensive to produce than the cars that are out now?

Ms. MATHEWS. Even the ones that are. Volvo says that their 70-mile-per-gallon car can be marketed at the same prices as the sedan that it is comparable to in the Volvo line, the reason being that they get magnesium so cheaply out of the North Sea. But they lose their maximum comparative advantage by putting it on the market at a time when efficiency is not at the top of consumers' lists. So, it makes sense for them in a purely market sense to wait until the gasoline price comes back, which they expect.

See, I think what Japan and Europe see is a long-term transition over a couple of decades, and the transition in the automobile sector will be managed through very high efficiency. And what Detroit sees is a rather short transition managed through some other liquid fuel. And the other end of the transition both see as hydrogen and electric cars. The question is whether one is looking for sort of a short-term fix—that is why all this attention is being paid to methanol and ethanol, et cetera, the other liquid fuels.

Representative SOLARZ. How do they lose by putting the cars out now? There would be some people who would be interested in buying them.

Ms. MATHEWS. Right, but if you have put a lot of money in a lot of R&D into developing a really brand new technology, you want to get the most out of it that you can. So, you bring it on the market at a time when consumer demand is for high mileage.

Representative SOLARZ. If they bring it out now, does that mean that the other car companies will more easily be able to copy it?

Ms. MATHEWS. I'm sure that is part of it, but you now have me commenting outside my realm. I am not an automobile executive.

Representative SOLARZ. Mr. Randall, do you have any suggestions about what might be included in the kind of Omnibus National Security Act I spoke about?

INVEST IN HUMAN CAPITAL

Mr. RANDALL. I would think that the key things involve, more important than almost anything, the human capital, the technology department. I think we have to recognize that—this is not the day maybe to talk about education, but if you want to name the single thing in which America is the far and away world leader, you would name graduate education. We have the best graduate schools in the world, more so than perhaps anything else we do best. Now, if you look at mathematics, if you look in engineering, for that matter, if you look in economics, but particularly I stress mathematics and engineering, 70, 80, in some cases 90 percent of the graduate students in the top programs are foreign students, most of whom will leave the country at the end of their training. And if there is one thing that we really need to do more than any-

thing else it is to build and maintain that human capital domestically and through immigration to some extent.

DEVELOP ALTERNATIVE ENERGY

Now, in terms of the context of today, we need to find ways to address that to energy and environmental problems. I think that perhaps it is more important to set aside the money to make a serious attempt to build a research infrastructure to work on alternative energy, to work on conservation, to get the technology out there.

I do not really feel terribly bad about buying lots of \$20 a barrel oil. It is fairly cheap. We can afford lots of it if we always knew it was going to be out there, and if it was environmentally harmless, it would not be that bad a deal.

We need to be more concerned about the real costs, which include the environmental costs. That would raise the price up and we could manipulate the tax system to recover those costs.

The real thing I am worried about is it will not be out there forever either because we will use it all or because the people who control it at the source are unstable, disorganized, whatever. So, we need to have technologies in place that we can bring onto line rapidly in the event that political conditions change. We know that our economic system will signal us when scarcity is approaching. The prices will increase in a fairly smooth kind of a way, but if on the other hand, political instability was to suddenly interrupt supply, we cannot do much about that. And what we need to do is to get the technology on line to invest in that.

THE GASOLINE TAX

Representative SOLARZ. What do you think of Ms. Mathews' idea of a \$1 a gallon gasoline tax?

Mr. RANDALL. I guess I would probably do the professorial thing and go back and say, hey, what are we trying to accomplish here. Is it to develop new technologies further out, to have them when we need them when the cheap oil days are over? It may not be the most effective way to do it immediately.

The cost of gasoline does not reflect the real environmental costs. We certainly could develop what I guess has been mentioned today as a user fee, a tax on gasoline to recover some of those costs. It would be nice to direct some of that revenue to new things. We have I think reached a situation in this country when Government does too little, and too much of what it does is merely redistributing income from some folks to other folks. And I am sure you know. I am sure you feel more strongly than I do about the problem of taxophobia and all the rest, but it would be nice to think in terms of a user fee on gasoline which would generate revenue to be used for environmental and energy technologies rather than to solve the deficit problem that we are unwilling to solve through the more traditional procedure of raising revenue to cover our expenditures.

A dollar a gallon strikes me as very disruptive if implemented immediately, and that is what she said. So, we are not disagreeing. It seems to me pretty clear that the Sun Belt is not structured by

and large to survive without the automobile, and if one wanted to change that whole way of life, it would seem fair to introduce the tax relatively slowly.

I do not really oppose a large gasoline tax. I do not feel terribly strongly that we need it right away, although I think we could certainly use a lower tax for dedicated revenues. I should report that on Friday I let certain colleagues in my department read my prepared statement, and the coffee room group come down four square for a dollar a gallon gasoline tax.

LEAST-COST ELECTRICAL REGULATION

Representative SOLARZ. What about her suggestion for least-cost regulation of the electrical industry?

Mr. RANDALL. What she is saying is that there ought to be a way that conservation strategies broadly defined, those things that enable us to get more out of the energy we use and perhaps use less, ought to be rewarding to the utility companies, and that is basically the point. And it is excellent.

Ms. MATHEWS. This is an economist who just said that there is a free lunch out there. So, you have to see this as very important.

Representative SOLARZ. Would you be able to give us some language that you think would accomplish this objective that we might consider for inclusion in this legislation?

Ms. MATHEWS. Yes.

Representative SOLARZ. That would be helpful.

CONCLUSION

Well, I want to thank you both very much. This has been quite interesting. You have raised some very important issues. You have contributed to our understanding of the problems, and I will carefully reflect on what you both have to say. Thank you very much for some very good testimony.

The committee is adjourned.

[Whereupon, at 4:20 p.m., the committee adjourned, subject to the call of the Chair.]

AMERICAN ECONOMIC POWER: REDEFINING NATIONAL SECURITY FOR THE 1990'S

WEDNESDAY, JUNE 6, 1990

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 2:10 p.m., in room 2359, Rayburn House Office Building, Hon. Stephen J. Solarz (member of the committee) presiding.

Present: Representatives Scheuer, Solarz, Snowe, and Fish.

Also present: Richard F Kaufman, general counsel.

OPENING STATEMENT OF REPRESENTATIVE SOLARZ, PRESIDING

Representative SOLARZ. The committee will come to order.

We conclude today a series of hearings which we've been holding in an effort to develop a new definition of "national security" in a postcold-war era. So far, we've had a series of hearings that have contributed significantly to our understanding of the challenges confronting the country now that the cold war has come to an end. And I'm particularly pleased that we could have such a distinguished panel of witnesses with us today to contribute their wisdom to our deliberations on this important issue.

I think that the country has always responded in the past whenever it has understood the nature of the threats which have confronted it. Part of the problem now, I suspect, is that we dimly perceive, let alone fully appreciate, the real character of the challenge our country is likely to face as we move into the 21st century. And I'm hopeful that our panelists today can shed some additional light on that question, as well as offer us any specific suggestions they might have about how we can best deal with it.

After we've heard from them, I want to explore, in particular, their thoughts about the concept of legislation I've been working on, the substance of which has been significantly shaped by these hearings, which would be designed to enable the country to take the kind of steps to equip us to confront and overcome the various threats to our national security we're likely to face as we approach the end of this century and move into the next one.

So, without further adieu, why don't we now hear from our witnesses. Perhaps we can begin first with Ted Sorensen who's probably known to most of you here as someone who's made very distinguished contributions to public service in the course of his career.

Then we'll hear next from Dimitri Simes, who has been a frequent witness before congressional committees, and who is one of our leading experts on the Soviet Union.

And then as a cleanup hitter, we'll ask Paul Warnke, who has also served with great distinction in various positions in the executive branch, and who is one of our most thoughtful students of the national security process in Washington.

Ted, would you like to begin? And then we'll hear from Dimitri Simes, and then from Paul Warnke.

STATEMENT OF THEODORE C. SORENSEN, PARTNER, PAUL, WEISS, RIFKIND, WHARTON & GARRISON

Mr. SORENSEN. Thank you, Congressman Solarz.

I want to congratulate the committee for convening these hearings on the redefinition of our national security.

I'm not among those who say that in today's world, national security has become an outmoded concept. I do not minimize the importance of collective security efforts with our allies or the common security obligations of all mankind. I do not doubt that the global marketplace and global environmental concerns are necessarily eroding traditional roles of national sovereignty. But our country is still a special place to all of us; and instinctive obligations of national self-preservation and self-esteem require us to secure, before all else, the survival of our nation's independence, institutions, and inhabitants.

For over 40 years, our definition of national security has been dominated by our concern about the Soviet Union—its military might and alliances, its Marxist-Leninist ideology, its ruthless treatment of its neighbors, its drive to export and exploit revolution around the globe, its desire to expand its ideological and military reach into the affairs of others and, above all, its status as the only military power on Earth able to threaten our national survival. Considerations of the cold war with communism—including the prospects of a hot war with the Soviet Union—shaped virtually every move we made overseas and every defense budget we adopted here at home, virtually every aspect of our foreign alliances, our foreign assistance, and our foreign policy.

Now, suddenly, that definition of national security is gone. The cold war, the arms race, the worldwide Communist movement, the Iron Curtain, the Berlin Wall, the military coherence of the Warsaw Pact, the expansion of Soviet armed forces, all are gone. Soviet ideology has been repudiated. Its attraction as a political or economic model or mentor for new and developing nations has vanished. Its ability to invade, arm, subvert, subsidize, or even threaten those nations or virtually anyone else has been substantially reduced.

Clearly, the Eastern half of Europe has not become risk free. Continued vigilance on our part will be required. But, equally clearly, the old cold war criteria for this country's national security are no longer meaningful. Our freedom and survival no longer face a Soviet menace, nuclear, conventional, ideological, or any other.

The vacuum that this has created in our strategic thinking is still hard to grasp. It is far easier to keep on warning that the Sovi-

ets might reverse course or that they have never truly changed course. It is far easier to content ourselves with marginal changes in military spending, arms reduction agreements, foreign assistance appropriations, and controls on exports to the so-called Soviet bloc.

In truth, our nation urgently needs, Congressman Solarz, as you have pointed out but no consensus has yet achieved, a new national security strategy, a conceptual framework more relevant to the new postcold-war era than simply the containment of communism. If the President and Congress cannot soon fill this definitional vacuum, I fear that it will be filled on the basis of political rather than strategic considerations, reflecting log rolling among the armed services, lobbying by ethnic organizations and foreign governments, and pressure from local defense plants and other constituent interest groups.

Even worse, such definitional vacuum could also be filled by a resurgent isolationism. For 40 years, many Americans believe, we have put up with complaining allies, poured money into ungrateful or undemocratic governments, opened our markets to disagreeable competitors, involved ourselves in other countries's internal matters, and contributed funds to multilateral organizations in which we were consistently outvoted, all to win friends against the Soviet empire and to keep others out of the Soviet orbit. Now there is no Soviet empire, no Soviet orbit, no enemy, and, as far as they're concerned, no more reasons to get involved.

That is not the case. Indeed, so many subjects are now competing for the label of new national security priority that the temptation is strong to include every favorite cause. But not everything in our national interest is a matter of national security. Not every foreign adversity affecting our national well-being rises to that level. The mystique of national security has too often in the past been invoked by the executive branch to justify or to cloak excessive or unauthorized conduct for me to encourage an overly broad definition of that term today.

I believe our national interests are truly threatened, for example, by illicit narcotics invading our country from Latin America, Asia, and elsewhere. I believe we are truly threatened as well by foreign-sourced hazards to our Nation's environment, to the air, ozone, oceans, and climate on which our very survival depends. We must stop both threats before they undo us, first stopping our own contributions to them. But we should be careful about conferring undefined, yet undeniably far reaching, powers of "national security" on every law enforcement or military official engaged in combating those two evils, lest we gravely harm the values and institutions that the very concept of national security is intended to protect.

Instead, I want to stress today the two overriding themes or goals that I believe now require the kind of Presidential, congressional, and budgetary priority we have heretofore given to the containment of communism, two basic definitions for this country's national security in the 1990's and beyond: One, the preservation of this nation's economic effectiveness and independence in the global marketplace; and, two, the peaceful enhancement of democracy around the world.

This committee knows the worrisome economic outlook. We have the world's largest trade deficit. We are the world's largest debtor. We are losing both domestic and export market share in one key industry after another: consumer electronics, machine tools, automobiles, steel, advanced computers, semiconductor chips, laser printers, and design and manufacturing technology in general. We have become dangerously dependent upon foreign sources for energy and for advanced computer and semiconductor technologies.

Does all this affect or national security? Economic strength is not a zero-sum game. America need not be No. 1 in every category for its citizens to live comfortably in freedom. Our \$5.5 trillion economy still leads the world in total economic power, factory worker productivity, and scientific genius. Foreign investors recognize the harm to their own interests that would accompany any sudden withdrawal of their capital from this country. Absolute economic independence is no longer possible in our interdependent world.

But if these attributes of deficit, debt, and relative decline are permitted to persist, this Nation's economic effectiveness and independence, in a world in which superconductors are becoming more important to the balance of power than supercarriers, would be endangered. We would become increasingly dependent upon the decisions of other countries whose objectives and values are not inevitably the same as our own. Like the United Kingdom before us, our loss of economic influence would diminish our diplomatic and strategic influence, and make us more dependent on others to take major initiatives, less of a model for others to emulate, and less able to decide for ourselves the fiscal, monetary, trade, and foreign assistance measures with which we promote our values and interests both at home and abroad.

Were our independence and way of life ever militarily threatened to that extent, we would be preparing for war with the enemy. But the struggle now is economic, not military; and blaming a supposed enemy and declaring war—a trade war—would represent, in my opinion, a resounding defeat for our country, dependent as it is on an open trading system.

Two concepts from the cold war days, however, may be transferable. First, the concept of burden sharing with Western Europe and Japan, each of us in this case recognizing its obligation to accept voluntarily a fair share of each other's exports—as well as those from developing nations—and, second, the concept of mutual deterrence, an undertaking, in this case, by the three economic superpowers not to fire those ultimate economic weapons that could shut down the world trading system.

But this country must also attack the domestic roots of our economic problem, including our high budget deficits, low rate of domestic savings and investment, high cost of capital, low rate of technological development, and inadequate educational and job training systems.

We have not permanently lost the technology race, for example, if we can mount the same kind of effort that we mounted to achieve technological superiority in the military arena, and can stop devoting our Federal research and development funds almost exclusively to military and space uses. And why must our secondary school students, compared to those in other trading powers

today, continue to receive less training in math, science, and foreign languages, during a shorter school day and a shorter school year, in an inadequately supported public school system, if we recognize the importance of an improved education to our national security?

The second priority or criteria for national security that I urge, the peaceful enhancement of democracy around the world, is based upon the premise that a global community of free nations, adhering to democratic principles under law, would be a far safer world for the United States. History tells us that governments who respect the rights of their citizens are more likely to respect the rights of their neighbors, and less likely to generate the kind of regional, racial, and religious conflicts, terrorists tactics, and conventional, chemical, or nuclear arms buildups that threaten the peace and our own long-range security.

The enhancement of democracy must not become an excuse for uninvited U.S. military or covert action in those nations that fail to meet our standards but pose no viable threat to others. But those standards must be set with tough-minded care, consistency, and flexibility. We should not look for pawns or clones of the United States, not even for loyal allies alone, but for authentic—not self-proclaimed—democracies. Our financial, military, and other support for oppressive and corrupt regimes in Africa, Asia, the Middle East, and Latin America, can now come to an end. No longer can they play one superpower off against the other. No longer can we maintain that their willingness to speak in serious opposition to Soviet expansion is more important than their willingness to tolerate serious opposition at home. We do not intend to dictate their form of government, but neither are we obligated to support dictatorial forms of government.

I'm not talking simply, or even primarily, about foreign aid. Free political institutions do not spring up and succeed automatically with the first loud blast of freedom's trumpets. Those who have long been denied information about human rights and political reform are hungry to learn more—how to build a truly free legislature, an independent judiciary, a restrained policy authority, a system of responsible local governments, and a civilian-controlled defense force. Acknowledging the major role that Western Europeans and others will also play, the United States—through the National Endowment for Democracy, the Agency for International Development, the U.S. Information Agency, and otherwise—can surely supply whatever expert consultants, instructors, and election observers these emerging or reemerging democracies may request from us.

In addition, free economic institutions, trade preferences and credits, debt relief, commodity agreements, investment guarantees, technology transfers—including pollution controls—and access to international finance and trade organizations are essential to the economic growth that must underlie political freedom in these countries. Our objective must be not only the short-term alleviation of human misery but, more importantly, the establishment of long-term practices that will strike at poverty's roots and make their economic growth and independence sustainable over the long run. Sustainable economic development requires, among other things,

curbs on excessive population growth and on environmental degradation, and our assistance should stress both requirements.

Foreign aid has a role—particularly foreign aid that is quietly but consistently conditioned upon a country's promulgation of political reform, human rights, and free and fair elections. No nation would be required to accept either our economic aid or our political philosophy; but neither should we feel required in the postcold-war era to subsidize repression.

These all too brief remarks, Congressman Solarz, are extracted from my substantially fuller article on the same subject in the forthcoming issue of *Foreign Affairs*. I am happy to submit that article to you with the understanding that its release is embargoed until publication.

Representative SOLARZ. I think, Ted, it was Pocohantas who said "speak for yourself, John Alden." And I must say, it's nice to hear you speaking for yourself. Your testimony, when delivered, is just as eloquent as when you've prepared it for others. And I think that this has been a very helpful contribution.

[The article referred to for the hearing record by Mr. Sorensen follows:]

(From *Foreign Affairs*, summer 1990)

Theodore C. Sorensen

RETHINKING NATIONAL SECURITY

The touchstone for our nation's security concept—the containment of Soviet military and ideological power—is gone. The primary threat cited over forty years in justification for most of our military budget, bases and overseas assistance is gone. The principal prism through which we viewed most of our worldwide diplomatic activities and alliances is gone. That they are gone is cause for rejoicing in celebration of peace and freedom. The search for a new national security focus has begun, but if the president cannot soon lead the way to a consensus among our national security decision-makers on credible new goals to guide our basic foreign policy and military planning for the long term, the current strategic vacuum is likely to be filled not only haphazardly but unwisely as well.

II

Unfortunately neither the leadership nor the consensus has emerged thus far in this country, even on the need for a new national thesis, much less on its content. Warnings that the Soviet Union remains the foremost threat to our national way of life continue to emanate from high places in Washington, particularly in the Department of Defense. This is not wholly surprising. The Soviets remain the only nation on earth capable of bringing about our physical destruction. Soviet military weapons and advisers can still be found in trouble spots from Cuba to Vietnam. The size and irreversibility of current Soviet arms reductions have been questioned. The Soviets have been known in the past to alter course unpredictably and to try deceiving, dividing and lulling the West by putting on a temporarily peaceful face.

Moreover, it is argued, the recent Soviet change of position has been led by one mortal human being whose continuation in power cannot be guaranteed. Growing instability and separatist tendencies in a vast nation planted thick with nuclear

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missiles and armed forces are surely not cause for Western complacency. No one knows whether there is a limit to the number of defections, desertions, demonstrations and setbacks that the Kremlin can stand before a violent reaction would be triggered. Nor does anyone know whether some future turmoil in the Baltic republics, border conflict in the Balkans or ethnic violence in the newly liberated but still wobbly nations of Eastern and central Europe could escalate to a point where both Soviet and Western forces would feel obligated to intervene, not necessarily on the same side.

In short the past year's remarkable events in the eastern half of the European continent have not eliminated all danger in that region for the West. Indeed the possibility of a nuclear launch—rational or irrational, deliberate or accidental—can never be wholly eliminated. Nevertheless, in the real world of comparative risk assessment, the actual likelihood of a threat to our national security from a Soviet invasion of Western Europe or a Soviet nuclear strike—the two threats for which we are most prepared today and to which we have for so long devoted so much of our wealth, talent and attention—ranks far below a host of non-Soviet, and even nonmilitary, threats to that security.

Those U.S. leaders and experts who coolly stressed geopolitical realities throughout the Cold War—the reality of Moscow's ruthless treatment of its neighbors, its drive to export and exploit revolution around the globe, its desire to expand its ideological and military reach into the affairs of others and, above all, its capability to inflict unacceptable damage upon this country—must now face a new reality. The Soviet threat has not only been contained; it has collapsed. The Soviet empire has disintegrated. Its long-time ideology has been repudiated. Its combat forces are being unilaterally drawn down. Its military alliance is in tatters. Its attraction as a political or economic model or mentor for new and developing nations has vanished. Its ability to invade, arm, subvert, subsidize or even threaten those nations or virtually anyone else has been substantially reduced. Given the grave economic, ethnic, social and political problems that the Soviet Union faces internally, the long-term future of its present form and borders is in doubt.

A sudden full-scale reversal in course now, while not to be ruled out, would only weaken still further the Soviet Union's ability to enlist its citizens, neighbors and resources in a

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military battle against the West. Neither the American people nor America's allies will believe any longer in a U.S. national security policy based primarily on a Soviet military threat.

At the opposite end of the national security spectrum are those who have concluded that the ending of the Cold War, of the bipolar era and of any credible military danger to our continued existence also signifies an end to the very concept of national security. The global community has become too small, they argue, and the destinies of its members too intertwined for any nation to think in those narrow traditional terms. The United States has learned there is very little it can accomplish by itself even about its own international problems—for example, freeing its hostages, stabilizing its currency, safeguarding its ships and planes, halting the flood of narcotics. The constant, largely unregulated flow of acid rain, illicit refugees and electronically transmitted financial instruments across international borders, including our own, should have put all world leaders on notice that the old rules of national sovereignty have lost much of their meaning and effectiveness. Far more important than ever before are the collective security efforts that we undertake with our allies and the common security obligations that we share with mankind.

Nevertheless every country, including our own, remains a special place to its own citizens. In a world that is still heavily armed, highly volatile and increasingly complex, our instinctive obligations of national self-preservation and self-esteem require us to secure before all else the survival of our own nation's independence, institutions and inhabitants. The demise of Soviet ambitions does not assure fulfillment of our own. Even our global interests impose upon us national responsibilities, some of them more daunting as the influence we enjoyed in the role of chief protector ebbs. There is merit in the concepts of common security and collective security, and merit in the argument of those who would place those obligations uppermost; but this nation is not yet ready to ignore its own national security.

There is merit as well in the argument of those who maintain that Washington has not focused on the Soviet Union to the exclusion of other problems in recent years; that our existing foreign policy and military tools are already coping with a host of other threats to our national security, old and new; and that thus there is no vacuum in our strategic thinking or national security rationale that needs to be filled. Certainly

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instances of U.S. concerns that do not stem from our global military and ideological confrontation with the Soviets can be readily identified. Our dealings with Canada, Mexico, Japan and Israel come to mind first. These examples, however, are exceptions. Through nine administrations and 22 Congresses, virtually every dimension and deployment of our armed forces, virtually every weapon system developed, diplomatic move taken and foreign dollar expended have been shaped primarily by the need to wage and win the Cold War with communism and to prevent—or to prevail in, if we could not prevent—a hot war with the Soviet Union.

This concentration of mind and effort rested in large measure upon legitimate concerns. Not since the earliest days of the republic had a hostile nation possessed the power and possible motive to threaten our very survival. But it also rested in some measure upon political convenience. Nine successive presidents, both Republicans and Democrats, invoked the threat of international communism to help market unappetizing national commitments to the American Congress and public—commitments to station large numbers of American forces abroad in peacetime, to put American cities at risk for the protection of West European cities, to provide military, economic and technical assistance to dozens of countries around the world, and to pay for a huge defense establishment when we were not at war.

We established NATO, a panoply of other alliances and a worldwide network of military bases and access rights primarily to deter Soviet or Soviet-supported military expansion. We devoted half of a tremendous military budget and developed a host of high-tech battlefield weapons primarily to prevent a Soviet invasion of Western Europe. We fought in Korea and Vietnam, first isolated and then wooed China, imposed sanctions on Cuba, subverted governments in Guatemala and Chile, subsidized rebellions in Angola and Nicaragua, suppressed rebellions in the Dominican Republic and Grenada, placed our flag on the moon and on Kuwaiti tankers, and engaged in countless other activities—including even financing domestic education and highway construction—all in the name of outbidding, outmaneuvering or outlasting Soviet-sponsored communism.

We were wary of antagonizing South Africa, escalating conflicts in the Middle East, shunning despots in Iran and Cambodia and reducing military sales or assistance to dozens

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of dubious recipients, all because we feared the Soviets or their proxies might step in. Even poverty and injustice in developing nations were combated at least in part with the argument that any internal division or disorder could be exploited by communism, thereby threatening some vital supply line, seaport or potential spy-satellite site.

Clearly many of these measures had independent merit and would have been sought or seriously considered by this country even if there had been no Cold War. But it was easier to enlist the support of Congress and the public for these efforts, and to pledge or cite them in oversimplified election campaigns, as long as they were somehow linked to the danger of Soviet or communist expansion. That was the basis on which these measures were sold to the American public, and those who made the "sales pitch" cannot now be heard to deny their representations and warranties.

III

The present conceptual vacuum, in short, is very real. Like the astonished winner of a lottery or an upset election, the U.S. government, the morning after communism's sudden collapse, hardly knows what to do. The response thus far in both the executive and legislative branches has been characterized largely by inertia, inconsistency and improvisation. Some have rushed to find new rationales for old force levels; others have been content to warn of Soviet unpredictability and power. Some have tinkered with marginal changes in military spending, arms reduction agreements, foreign assistance appropriations and controls on exports to the Soviet "bloc," while still others have continued to back weapons, commitments and policies of increasing irrelevance. Even our transitional proposals to help the passage of East and central European countries out of communism have been inadequate stopgaps, unrelated to the longer-range challenges ahead.

To be sure, it takes time for a superpower, like a supertanker, to change direction, particularly now that such a turn in this country's foreign policies requires far broader agreement within the executive branch, Congress and the nation than it did forty years ago. It takes time as well to adjust in an orderly way a huge military structure still targeted largely on the threat of a Soviet attack (as symbolized by the aerial command post still flown round the clock in preparation for a sudden, devastating nuclear strike). Time should be taken. So

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many developments in the past year have come our way, and so few of them were foreseen in advance, that any blind rush to new long-term commitments now would be folly.

But in the absence of an early executive-legislative leadership consensus on a conceptual framework defining our national security in the post-Cold War era, that vacuum is likely to be filled by a mishmash of political considerations. Military budget reductions will reflect not actual needs but log-rolling among the services as well as pressures on the Congress from local defense plants and bases. New or continued foreign alliances, commitments and economic and military assistance appropriations will reflect not new strategic priorities but the relative strength and influence of domestic ethnic organizations and foreign government leaders and lobbyists. New policies on international trade and finance will reflect not our long-term objectives but turf battles in Washington and constituent interest groups back home.

Worst of all, the lack of a clear national direction in world affairs could open the way for a resurgent isolationism in both major political parties. Instinctively doubtful about "foreign entanglements," or too young to remember any foreign policy before the Cold War, many Americans have only reluctantly gone along while this nation put up with complaining allies, poured money into ungrateful or undemocratic governments, opened our markets to disagreeable competitors, involved ourselves in other countries' internal matters, and contributed funds to multilateral organizations in which we were consistently outvoted, all in the interest of winning friends against the Soviet empire and keeping others out of the Soviet orbit. Now there is no Soviet empire and no Soviet orbit. Nor do these recalcitrants see any other "visible" enemy to defeat or wars to be fought. Without a clear presidential trumpet to summon their support, their indifference or opposition could handicap any effective global role for this country in the next decade.

To be sure, there is no shortage of subjects competing for the label of new national security priority. On the contrary, the temptation is strong to include every favorite international cause. But not everything in our national interest is a matter of national security. Not every foreign adversity requiring action or affecting our national well-being rises to that level. The question is not merely what problems must be tackled today or what countries might pose risks tomorrow, but what kind of

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world in the next decade and beyond would best protect our values and strengths.

Too often in the past the mystique of national security has been invoked by the executive branch to justify or cloak excessive or unauthorized conduct, undeclared wars, unconventional covert operations, unaccountable secret decisions and unprecedented limitations on citizens' rights. This time a narrow definition of the term is in order.

I believe our national interests are truly threatened, for example, by the invasion of our country by illicit narcotics from Latin America, Asia and elsewhere. I believe we are truly threatened as well by damage to our nation's environment—to the air, ozone, oceans and climate upon which our very survival depends. We must stop both threats before they undo us, first stopping our own contributions to them. But we should be careful about conferring undefined yet undeniably far-reaching powers of national security on every law enforcement or military official engaged in combating either of those evils, with their potential impact on the individual liberties and business freedom of virtually every American, lest we gravely harm the values and institutions that the very concept of national security is intended to protect.

In my view, a bipartisan national consensus—essentially fixing the new terms of reference while leaving ample room for partisan disagreement on their application—could be formed around two basic national security goals for the new multipolar era, two long-term objectives deserving the kind of presidential, congressional and budgetary priority we have heretofore given to the containment of communism: the preservation of this nation's economic effectiveness and independence in the global marketplace, and the peaceful enhancement of democracy around the world.

Unlike our focus for the last forty years, these two goals—economic independence and democratic enhancement—are not primarily defense-oriented, although our defense forces will continue to have important responsibilities; nor are they primarily Soviet-oriented, although we must, as noted, remain alert to risks in that region; nor are they as predominantly Europe-oriented as our foreign policy has traditionally been. They are not as negative in nature as containment and defense, nor as costly in tax dollars, nor as easy to simplify for political purposes. But they are equally global in scope, recog-

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nizing our continuing capacity and responsibility for world leadership.

Like containment, both of the broad phrases stated above are in need of further explication and in danger of being invoked as justification for a multitude of sins. Either, if misapplied in an aggressively nationalistic fashion, could revive American failings of long ago—specifically, protectionism and imperialism—bringing resentment and retaliation from other nations and doing great harm to our own interests. Both goals, however, if pursued constructively, creatively and in cooperation with other like-minded nations, could achieve for the United States a level of security far exceeding that we have already achieved as the Cold War draws to a close.

IV

The once powerful beacon of this nation's economic strength, particularly in relative terms—relative not only to an economically ascendant Japan, a newly united Germany and Western Europe and other nations in general, but relative as well to the worldwide ranking we once enjoyed and could enjoy again—no longer shines so brightly in the global marketplace of today. We have the world's largest trade deficit. We are losing our competitive position, our market share in both domestic and export markets, in one after another of the industries in which our leadership was once vaunted: consumer electronics, machine tools, automobiles, steel, advanced computers, semiconductor chips, laser printers, and design and manufacturing technology. We have become dangerously dependent upon foreign sources for the advanced computer and semiconductor technologies that underlie modern information industries, and dangerously dependent upon foreign sources (once again) for the energy that we consume at a higher rate than any other nation to fuel our factories, homes and transportation systems. We have the largest gap between earnings and savings, the highest budget deficit (in absolute terms) and one of the lowest rates of productivity growth of any nation in the industrialized world. We have become—thanks to our trade deficit and the enormous foreign borrowings required in light of our low savings rate and large federal budget deficits—the world's largest debtor.

Does all this affect our national security? Economic strength is not a zero-sum game. America need not be number one in every category for its citizens to live comfortably and produc-

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tively in freedom and safety. Contrary to the alarm often sounded, our \$5.5 trillion economy still leads the world in total economic power, manufacturing worker productivity and scientific genius. Foreign bankers and businessmen recognize the harm to their own interests that would accompany any sudden withdrawal of their capital from this country. Absolute economic independence is no longer possible in our interdependent world.

But if these trends of deficit, debt and relative decline are permitted to persist and harden into fixed patterns, this nation's economic effectiveness and independence—meaning the flexibility to make decisions and the ability to fend for oneself, which are indispensable parts of any country's national security—would indeed be endangered. The sense of well-being that has generally characterized our way of life since emerging from the Great Depression would become increasingly dependent upon investments, deposits, credits—and thus decisions—from other countries, whose objectives and values are not inevitably the same as our own, and whose decisions will be dependent at least in part upon their appraisal of our national policies. The rise and fall of our currency and our stock markets, the prospects for inflation, recession and long-term growth in our economy, the price we pay for our gasoline and the price we charge for our grain exports—all would become more subject to the attitudes and actions of others.

Our traditional sense of flexibility in foreign affairs—the ability to mount, when needed, a Marshall Plan or Manhattan Project, whatever the cost—would be severely limited. Like the United Kingdom before us, our loss of economic influence would diminish our diplomatic and strategic influence, making us more dependent on others to take the initiative on international economic problems, less of a model for others to emulate, less able than others to provide assistance to struggling democracies, and less able to decide for ourselves the fiscal, monetary and trade measures with which we promote our values and interests both at home and abroad.

Even our national pride and will, the certainty that our children will live at least as well as their parents, the belief that we inhabit a land of plenty in which no group need be denied, the self-confidence and unity essential to the successful conduct of an affirmative foreign policy, all would suffer from the realization that we have become more vulnerable economi-

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cally, that a substantial portion of our long-term assets were no longer under American ownership and control, that we were no longer among the world's top five countries in living standards, no longer the central player on a world stage where superconductors are becoming more important to the balance of power than supercarriers.

In short, unless we reverse these trends, our ability to control and protect our own destiny and daily lives—even the wages, prices, jobs, profits, home ownership and higher education opportunities of our citizens—would be threatened. Were our independence and way of life ever militarily threatened to that extent, we would prepare for war with the enemy. But the struggle and threat now are economic, not military; moreover, declaring war—a trade war—would represent a resounding defeat for our country, dependent as it is on an open trading system. Even to name and blame a supposed “enemy” would only handicap our effort to keep that system open.

That will not prevent many American politicians from discussing the trade issue in Cold War terms: singling out and verbally bashing an enemy in order to mobilize public opinion at home; dividing the world into two or three blocs in order to “contain” the other side; matching that other side move for move (in this case, meeting their closed markets with our closed markets); and focusing on the “enemy’s” misconduct in order to avoid attention to our own contributions to the gulf between us. But no war, hot or cold, is in fact a useful model to meet the challenge of world trade competition.

Nevertheless two concepts from our Cold War days may be transferable. The concept of burden-sharing with Western Europe and Japan—both of whom have enjoyed chronic external balance-of-payments surpluses while we remained deep in deficit—is as fair and indispensable in avoiding a trade war as it was in avoiding a shooting war, and should be more consistently pursued. Each of the three economic superpowers—the United States, Japan and the European Community—must recognize its obligation to accept voluntarily a fair share of each other’s exports (as well as those from developing nations), regardless of allegedly inherent structural impediments and differences in marketing skills and networks. Perhaps a new nonpolitical international trade equivalent of the International Monetary Fund could nudge surplus and deficit countries into balance over the long term, conditioning exter-

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nal help on internal reform, without the bilateral hectoring that so often merely stiffens intransigence.

In addition, the concept of mutual deterrence, under which the two nuclear superpowers have fulfilled for so long their wider obligation to the world community not to make reckless use of those ultimate weapons, could be matched by a similar undertaking now by the three economic superpowers not to engage in any firing of those ultimate economic "weapons" that could escalate into a shutdown of the world trading system. Instead they must collaborate in strengthening and enforcing the General Agreement of Tariffs and Trade rules to halt collusive arrangements, nontariff barriers and other unfair trade practices.

But this country, while dispelling any impression that its efforts to open foreign markets on a reciprocal basis to American exporters can be endlessly delayed, must also attack the domestic roots of our problem: our high budget deficits, low rate of domestic savings and investment, high cost of capital, lag in technological development, inadequate educational and job-training systems, even our frequently improvident attitudes as individuals toward quality performance and products.

We have not permanently lost the technology race, for example. The same kind of effort that we mounted to achieve technological superiority in the military arena must now be mounted to integrate our military technology with commercial activities, to translate our edge in basic research and innovation into competitive and marketable high-tech products, to become more adept at improving existing industrial technologies, and to move those improvements more quickly to market with firm control of both cost and quality. But any significant U.S. expansion of investment in new product research, development and industrial facilities will require, among other things, a recognition of their importance to our national security and thus the folly of continuing to devote federal funds for research and development almost exclusively to military and space uses.

Winning the competitiveness struggle will also require the application of more funds and talent to our educational system. This country will soon face a serious shortage of experts with engineering Ph.D.s, which are increasingly pursued in our own universities by foreign instead of American students. Our secondary school students, compared to those in

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other trading powers today, receive less training in math, science and foreign languages during a shorter school day in a shorter school year in an inadequately supported public school system. We have long recognized the importance of improved education to individual and family security. Now, more clearly than ever, it has become a matter of national security.

v

The second priority that I urge, the peaceful enhancement of democracy around the world, is consistent not merely with the moral impulse traditionally underlying American foreign policy but with our long-term national security requirements as well. A global community of free nations adhering to the democratic principles of pluralism, human rights and equal opportunity under law would be a far safer and friendlier world for the United States. History tells us that governments that respect the rights of their citizens are more likely to respect the rights of their neighbors. They are less likely to generate the kind of regional, racial and religious conflicts, terrorist tactics and conventional, chemical or nuclear arms buildups that threaten the peace and unity of the world, on which our own long-range security rests.

Facilitating democracy in those countries that wish it is a role for which the United States has some preparation. From Wilson's Fourteen Points to Kennedy's Peace Corps, we have been less imperialistic and more generous toward weaker nations than any other major power in history. Several U.S. agencies have experience in democratization, much of it positive. The fortunes of war imposed upon us unique responsibilities to lay foundations of freedom in the Federal Republic of Germany and in Japan; on the whole we met both responsibilities ably. President Truman was intent on furthering the construction and reconstruction of democratic institutions around the world before Stalin's increasingly aggressive posture began to dominate American thinking.

Since then our record in peacefully encouraging other nations to move toward democracy has been mixed. President Kennedy's Alliance for Progress had some successes and some failures before it was abandoned by his successor. President Carter's emphasis on human rights still reverberates. Today we are hopeful about Namibia, South Korea and the Philippines, and less so about South Africa and Haiti, but a final judgment on any of them would be premature. The relatively

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new National Endowment for Democracy (NED) clearly helped the democratic process in Chile and elsewhere; but thus far, compared to other industrialized nations, we have been largely onlookers in the democracy movements of Eastern and central Europe and southern Africa.

Where we have most clearly failed has been in our recurrent attempts to impose democracy on others by force of arms or covert operations. Democracy by definition depends upon the voluntary support and sense of responsibility of the indigenous population. Local officials who govern with the consent of U.S. military or intelligence advisers are not governing with the consent of the people. We have no wish or right to engage in what Dean Acheson once called "messianic globaloney" to direct the destiny of peaceful peoples; and we do not wish other powers to do so either. The "enhancement of democracy" must not become an excuse for U.S. military action or uninvited internal meddling in nations that fail to meet our standards but pose no viable threat to others.

Those standards must be set with tough-minded care, consistency and flexibility. We should look not for pawns or clones of the United States, not to our list of current arms and aid recipients, not even for loyal allies alone, but for authentic democracies. Inevitably we will have preferences, including those democracies with whom we have historical ties and those whose economies have been damaged by wars we urged or fueled. But not every self-proclaimed democracy deserves either that label or our support. Not every mistreated regional, tribal or ethnic minority proclaiming the right of self-determination deserves our embrace, if the community of nations is not to splinter into a welter of politically unstable and economically unsustainable units. Nor will every object of our embrace be of strategic significance in traditional balance-of-power terms. Nor will all of them feature an unmixed market economy or support our every position in the United Nations or in regional conflicts. A world "made safe for diversity" must take into account historical, cultural, social and economic differences.

But our financial, military and other support for oppressive and corrupt regimes in Africa, Asia, the Middle East and Latin America should now come to an end. No longer can they play off one superpower against the other. No longer can we maintain that their willingness to speak in opposition to Soviet expansion is more important than their willingness to tolerate

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serious opposition parties and newspapers at home. As new democracies emerge seeking from us financial and other forms of assistance, we will have reason enough to move away from those unwilling to adopt true reforms. We do not intend to dictate self-righteously their form of government, but neither are we obligated to support dictatorial forms of government.

The passage of nations from dictatorship to freedom is inevitably slow, difficult and often impermanent. Facilitating that passage is not simply or even primarily a matter of economic assistance. Indeed foreign aid is frequently wasted if the stagnant bureaucracies and stifled educational systems of the old regimes do not simultaneously give way to new governmental and legal structures. Free political institutions do not spring up and succeed automatically with the first loud blast of freedom's trumpets.

Considerable concern about the export of this country's superficial political "packaging" methods attended the arrival of American campaign consultants last winter in the new democracies of Eastern and central Europe. But pragmatic hands-on advice was in fact urgently needed by those who had never been candidates, party organizers, election commissioners or opinion pollers in an open society. Practical politics in this country, whatever its flaws, has a unique attraction for those hoping, as a result of their harsh experience under communism, to build new political parties that are less ideologically oriented, less structured and less dominated by strong leaders.

It is undisputed, however, that more than techniques and tactics are required to develop the institutions of democracy. As Czechoslovakia's President Václav Havel pressed upon the U.S. Congress, those who have long been lacking not only experience but also information about human rights principles and political reforms are hungry to learn more—how to build a truly free legislature, an independent judiciary, a restrained police authority, a system of responsible local governments and a civilian-controlled defense force. Acknowledging the major role that West Europeans and others will also play, the United States—through the Agency for International Development (AID), the U.S. Information Agency (USIA), NED and others—can surely supply whatever expert consultants, lecturers, election observers, legal precedents, textbooks and instructors these nations may request from us.

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In addition to free political institutions, free economic institutions must also be in place to make economic assistance meaningful. From agriculture and banking to transportation and energy, from the establishment of new enterprises and export markets to true cooperatives and trade unions, the need for technical and practical advice from the United States and others is enormous in these nations, North and South, making their way to freedom. The process of privatization, the prevention of monopolies, the avoidance of gross economic inequalities and predatory business behavior, the proper use of economic incentives, the organization of effective joint ventures and free enterprise zones—these are but a few examples of American know-how of interest and value to these infant democracies.

Nor is economic assistance confined to transfers of funds, food, fuel and medical supplies, important as they are to nations in transition. Food assistance should reflect their needs as well as our surpluses. Trade preferences and credits, debt relief, commodity agreements, investment guarantees, technology transfers (including pollution controls) and access to international finance and trade organizations are also essential to economic growth in these countries.

Building a stable and enduring democracy, always difficult, is even more difficult when complicated by the kind of massive economic problems faced today by new democracies in Europe, Central America and Africa—the very problems that contributed ultimately to their rejection of a Marxist state. Our objective must be not only the short-term alleviation of hunger, human misery and poverty but, more important, the establishment of long-term practices and policies that will strike at poverty's roots and make sustainable over the long run their economic growth and independence. Sustainable economic development requires curbs on excessive population growth and the emancipation and education of women regarding their choice of family size. It also requires effective curbs on environmental degradation, on the long-term poisoning of a nation's land, water and air resources that will ultimately defeat any economic recovery. Our assistance must stress both requirements.

Foreign aid that merely increases government bureaucracy, corruption and rigidity in a recipient country is worse than none at all. Foreign aid that is quietly but consistently conditioned upon a country's promulgation of political reform,

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human rights and free and fair elections should become a more common practice. No nation would be required to accept either our economic aid or our political philosophy, but neither should this nation feel required in the post-Cold War era to subsidize repression.

VI

As our priorities change, so must we change a federal budget that now allocates to foreign assistance less than five percent of the amount it allocates to national defense. The Congress should not again be asked, as it has been asked this year, to allocate funds for new democracies on a one-shot, country-by-country basis with no overall plan or direction. It should not again be tempted to renege on U.N. dues in order to find money for demobilization and reform in Central America; to juggle scarce funds among programs for refugee relief, defense reconversion, Namibia's transition and Panama's reconstruction; to choose between helping freedom among the nations of Eastern Europe, for which we have striven for so long, and freedom among the poor and developing nations of the southern half of the globe that are far more likely to be future sources of regional or even global warfare.

Our armed forces are not about to be confined wholly to our own shores. Whatever new "architecture" the leaders of Europe may initiate with our help, whatever new roles and new boundaries for NATO, the European Community and the Conference on Security and Cooperation in Europe may evolve, a credible American presence—dramatically reduced but not vanished militarily, and substantially increased both diplomatically and economically—should remain on that continent so long as enough Europeans seeking a counterweight (but not a military antagonist) to a reformed Russia, a resurgent Germany or recurrent European rivalries wish us to remain. The nations of the Warsaw Pact alliance will continue to require our vigilant attention, doing whatever we reasonably can do to facilitate further internal reforms, arms reductions and troop withdrawals. Nor can we precipitously abandon our presence and commitments in the Far East, where a substitution of Japanese for American protection would not be welcomed by all.

Nevertheless a fundamental reexamination of our national security posture should result in an American military ma-

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chine vastly reshaped and reduced, reoriented more toward the speedy projection of conventional deterrent forces to other parts of the world, toward local low-intensity conflicts and terrorist activities, toward hostile acts by undemocratic and unpredictable governments in such countries as Libya, Iraq, Iran, Cuba and North Korea, toward the defense of strategic resource supply lines and the interdiction of illicit narcotics supply lines, toward curbing the proliferation of nuclear, chemical and ballistic weapons capabilities, toward verifying the implementation of arms control agreements and even providing disaster relief, infrastructural engineering and refugee shelter and transport in the least fortunate parts of the globe. These tasks, however important, clearly do not require the same levels or the same types of U.S. personnel, missiles, planes, ships, submarines, tanks, military bases or military spending as the threat of a Soviet attack.

Reorientation will not be limited to the Pentagon. The National Security Council, originally intended to integrate military and nonmilitary analysis, will need to expand its capacity for the latter, relying on fewer generals and Kremlinologists and more economists and election analysts, inviting to its meetings experts rarely invited in the past: from Commerce, Agriculture, the U.S. Trade Representative's office, the Environmental Protection Agency, the Council of Economic Advisers and nongovernmental organizations as well. The State Department will need to devote more attention to its stepchildren in USIA, AID, NED, the Peace Corps and other multilateral diplomatic and financial organizations. The CIA will need to find more experts on Germany and Japan as well as the Soviet Union, on Islamic fundamentalism as well as Marxism-Leninism, on industrial as well as military espionage, and on oil-field as well as battlefield defense.

But the most important change of all is that required in the attitude of the American people and their elected leaders in Washington. Today, as a result of more than forty years of patient and prudent determination, we are on the threshold of securing the kind of world of which we have heretofore only dreamed, a community of democracies united by their commitment to law and peace, neither threatened by hostile armies or ideologies nor dominated by any one nation politically or economically. Because we have the largest economy, the most wealth and one of the lightest tax burdens of any industrialized nation in the world, because we are the only nation that is

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an economic as well as a military superpower, we have both the obligation and the ability to play a principal role in building that kind of world. Multipolarity means that we should be only one member of the team in that effort. But at least we will be on the field of play and not merely a cheerleader or spectator on the sidelines.

Unfortunately, with neither foreign enemies nor domestic leadership to spur the American public to new and greater efforts internationally, our political thinking in recent years on the range of issues discussed above has been characterized by caution and deadlock, focusing on limiting our public revenues but not our private consumption, on constantly polling the voters but not enlightening them. In past years, this country, whether challenged with world war or Cold War, responded boldly and decisively. If we continue now to think small, talk poor, preach gloom and always place our individual private interests ahead of the public good, we will gradually lose respect as well as relative strength and influence in a world that will not wait. But if we can elect leaders with the courage and wisdom to make the difficult choices required among the many demands on our government and resources—and forge a consensus on those choices—if we can put to constructive use those additional resources that the ending of the Cold War has made available to us (provided we have the good sense to utilize them), then the prospects for maintaining this country's genuine national security in a genuinely free and peaceful world will be very bright indeed.

Representative SOLARZ. We now have a vote in progress on the floor, and those were the second bells. So the committee will stand in recess for about 10 minutes, and then we'll resume with Mr. Simes.

[A short recess was taken.]

Representative SOLARZ. The committee will resume its deliberations. I apologize but we have the Export Administration Act on the floor and, unfortunately, we have a series of amendments coming up.

In any case, Mr. Simes, why don't you proceed.

STATEMENT OF DIMITRI SIMES, SENIOR ASSOCIATE, CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

Mr. SIMES. Thank you very much, Congressman Solarz. I'm very grateful for the opportunity to be here. Of course none of us, myself included, can be distinctly described as a witness, because we are talking about the future, and you cannot witness the future.

So what I will try to do, instead, is to make some observations. And I am in the slightly different situation from my two colleagues. I never had a responsible job with any administration, either in the United States or in the country I was born, the Soviet Union. And I think that the only service I can try to provide usefully is to say things which are not necessarily very responsible and things which I not necessarily myself would follow if I were in your distinguished chair, but that I think is the only service an intellectual like myself may usefully provide at a distinguished hearing like this.

First, let me say that I'm very disturbed by the current mood of self-congratulation in Washington over the victory in the cold war. I remember such mood already from my own history in the Soviet Union. And that, of course, was in the early 1970's after the American defeat in Vietnam. And we all decided that American imperialism lost its nerve, that there was a new stage of withdrawal, that American alliances were collapsing and after the world embargo and its terrible effect on the Western economies, we decided that capitalism was losing ground economically.

And when I'm saying "we," I really mean, we, because most Soviet politicians and Soviet economists came to this conclusion. Some cheerfully, some with a great deal of regret, but that was the conclusion. I think it is very dangerous to look at the current moment of history and to project it into the future. All we do know is that there was a certain threat to the United States, and there were certain circumstances in Europe and elsewhere which we found disagreeable, and now these circumstances and the threat gradually disappear. What is going to happen next is anybody's guess. The international chemistry is far too complicated, there are too many unknowns to be sure about anything.

Second, before we begin discussing the 21st century and how we move in general to better tomorrow, let's talk a little bit about the short end; namely, how to manage the current Soviet threat which is extremely serious and extremely real. Now, it is a very different Soviet threat than before. Never in my wildest imagination, if I were asked 3 years ago what was the nature of the Soviet threat, I

would say that the name of the Soviet threat is that the disintegration of the Soviet empire would become too chaotic and that it would be in our interest to preserve a modicum of stability inside the Soviet Union.

And, yet, I have to agree with Soviet Foreign Minister Eduard Shevardnadze, who recently addressing the Foreign Ministry, it was his speech in April, said, just try to imagine a disintegration of public order in the Soviet Union. It's a country with so many nuclear weapons, atomic power stations, chemical stockpiles, and you have to appreciate the situation in the Soviet Union today. Nuclear weapons are currently located in many extremely unstable areas. Our Defense Minister, Marshal Yazov, admitted that there were just 20 miles from Baku, during the riots in that capital city with Azerbaijan in January, just 20 miles.

And I want to remind you that there were Armenian helicopter gun ships, that there was Azerbaijani tanks, weapons they captured from the Soviet Army. But, fortunately, nuclear stockpiles were not attacked, but you cannot take anything for granted, especially in a situation when nobody understands who is in charge of what in Moscow. There are two presidents now in the Kremlin, claiming offices in two buildings next to each other; one Sir Mikhail and one Sir Boris, and Sir Boris is saying that Sir Mikhail is not the one presiding over Russia, and what is the Soviet Union without Russia.

There are three different police forces now in Moscow. One under the Central Government, Gorbachev, another under the Russian Republic Government, Boris Yeltsin, and the third under the Moscow City Council interregional group and the liberals. It tells you something about the situation and the extreme instability.

I think that the Bush administration is absolutely correct in talking about the American stake in stability in the Soviet Union. I think that, unfortunately, the Bush administration is missing the boat, not appreciating that instability in the Soviet Union is not coming from subversive forces but is coming from the inability of the Central Government and, personally, Mikhail Gorbachev, to rise to the challenge, to the challenge of great profound forces of history which Mr. Gorbachev, himself, has created but he is increasingly behind them.

The problem with Lithuania, in my view, and with other republics is not only that the United States is committed to their independence, at least was committed for 50 long years. It is not just a matter of principle, while I believe there is a matter of principle, but there is also a matter of calculation. As Gorbachev's advisers, Deputy Prime Minister Balkin, his top economic adviser, Nikilai Petrokov, were the first to admit, the Soviet Union cannot proceed with a meaningful radical economic reform without having a government of popular trust. You cannot create a government of popular trust without allowing multiparty elections. You cannot allow multiparty elections when you are constantly preoccupied with the brush fires all over the Soviet territory. It is a profound contradiction between maintenance of the empire and perestroika. Something will have to be sacrificed. And I'm very concerned that in his understandable desire to preserve the empire, or at least not to allow the empire to disintegrate chaotically, Gorbachev is sacrific-

ing his ability to maintain law and order, and to proceed with a meaningful economic reform.

And I want to repeat that, in my view, the United States has a stake in Soviet stability. And if this stability is not preserved, there may be more unpleasant consequences for everyone involved.

My second concern is about American relations with new Russia. Again, when I hear how this great country, the Soviet Union, is disintegrating and declining, I think that we completely forget history. It takes just several years, usually no more than 5 years for a country, if this country has wise economic policies and a government which can sustain its policies, to recover its economic momentum. That was true generally after World War I. That was true of Russia once they introduced NEP, and that certainly was true of Japan after World War II.

Which does suggest to me that, if the Soviets begin putting their home in order, not by year 2500, not by 21st century, but 5, 6, 7 years from now, they may turn the corner and begin doing quite well. Yes, the challenge is tremendous but so are their resources, and they have an abundance of highly qualified labor force.

But I am concerned about the emerging Russian nationalism, a new factor in the Soviet political equation, a real challenge for Marxist ideology and a potential new ideology of the new Russia. And here we have the new democratically elected leader of the Russian people, Boris Yeltsin, and the administration; instead of trying to have some dialogue with him, is sniping at him. I am not complaining about the administration dealing with Gorbachev. We can deal with Gorbachev, we should deal with Gorbachev, but certainly not at the expense of other forces in the Soviet Union.

Incidentally, I would like to draw your attention to an excellent column by S. Talbert, in the recent issue of Time magazine, where in he quotes senior Soviet officials coming with Gorbachev who were saying they were very disappointed, hearing how White House aides were publicly attacking Boris Yeltsin because this was appealing to Gorbachev's worst instincts, and were precluding an opportunity of cooperation between Gorbachev and Yeltsin. So, as you can see, there are profound problems in just dealing with the situation inside the Soviet empire.

The second group of problems is connected with the new order in Europe. Again, I'm concerned that we're forgetting history. The behavior of the Bush administration reminds me of the Athenians 25 centuries ago who were so preoccupied with maintaining their alliance after their victory over the Persians that they did not understand that to maintain your alliances and friendships, you have to know when to withdraw. That you have to withdraw when your mission is accomplished, but when you're still missed, except waiting until others, in this case the Germans will tell you, and what is your all and what do you still want.

Now, I do understand the need to preserve a modicum of American presence in Europe and in Germany. But I am concerned that the administration is attaching to this an undue priority, including in relationship with the Soviet Union.

And that brings me to my third observation. That in a certain nasty sense, cold war was a blessing in disguise. First of all, there was a great deal of international discipline connected with the cold

war. There were two groups of alliances and that provided the United States and the Soviet Union with a strategic leverage which we're not going to enjoy. It was true in the Middle East, it was true in other areas. Sometimes it put the United States and the Soviet Union close to a direct confrontation, but we also were more relevant than we can be relevant today to finding a way to make peace. We have to be ready to a much greater degree of international uncertainty than before.

Second, we have to remember that democracy is not the natural state of human affairs. That goes back to Plato, throughout history there were two forms of government and under different circumstances, democracy was more logical and under other set of circumstances, dictatorship. That is not to suggest that we should support dictatorships or accept dictatorships. That is to be ready to see some dictatorships and some regimes surviving and even prospering in the new environment.

And finally, I have to say that it is also historical to suggest that democracies never fight each other. I'm particularly amused when I hear about a building which was damaged by a great democracy called England. Certainly, when I hear it from the White House which was even more damaged by the British, I find that lessons of history are completely ignored. Incidentally, democracies fought each other throughout history, starting with Rome in Carthage, and going back to the Corinthians and Athenians and then, of course, the British and the French.

And that, of course, means that, as the United States-Soviet rivalry is becoming less important, we'll have to be more preoccupied with other sets of rivalries. In the past, we could safely assume that if the Japanese or the Germans or the French don't like American economic policies, they and we would have to adjust our grievances, simply because there were overriding security concerns pushing us closer to each other. This is not going to be the case much longer. You cannot visualize an alliance which does not include an element of a common threat, and I suspect that there will be no overriding common threat which would allow us to cut rate as easily as we used to before.

And that brings me to my final point, that we're going to be in a new historic era with new opportunities and with new threats, and that in many respects, while less well prepared to deal with this era than we were prepared to deal with the old era, because the whole American predominance was based on the cold war, on the bipolar world, on primacy of strategy and security concerns over economics. I think what is required is a profound rethinking of U.S. national security strategy and redefinition of American national security priorities.

Thank you, Congressman Solarz.

Representative SOLARZ. Well that, of course, is the purpose of this hearing and, hopefully, when we get into the question and answer period, you'll let us know what you think a new definition of our national security should be.

But those were the second bells. I want to thank you for your thoughtful and provocative observations, as always, Mr. Simes.

We'll return in about 10 to 12 minutes. I hope you'll bear with us. I suspect you've been through this before. But, as you know, it's

in the nature of the system, like Pavlov's dogs, when the bells ring, we respond.

So we will stand in recess for that brief period of time.

[A brief recess was taken.]

Representative SOLARZ. The committee will resume its deliberations.

Mr. Warnke, the floor is yours.

STATEMENT OF PAUL C. WARNKE, PARTNER, CLIFFORD & WARNKE, AND FORMER DIRECTOR, ARMS CONTROL AND DISARMAMENT AGENCY

Mr. WARNKE. Thank you very much, Congressman Solarz.

In the light of the dramatic changes of the past year, it's certainly imperative that we consider the nature of present challenges to our national security and how we can best deal with them. And I congratulate you and the committee for understanding these very timely hearings.

I guess that what we have to consider at the present point is, is there any remaining Soviet threat, and is there any other external threat? I think it's very important that we pursue our strategic arms negotiations with the Soviet Union, because, despite the change in the world's landscape, we still have many thousands of nuclear weapons aimed at one another, and that's not a healthy situation.

From that standpoint, I applaud the progress that's been made on a START I Treaty. I think it's important that we conclude this treaty. I hope we can do it within the next several months. It's a positive step in the direction of eliminating any real risk of nuclear war. Although the treaty won't achieve the widely advertised 50 percent cut in overall nuclear warheads, it does cut in half the Soviet warheads on ballistic missiles. And those, of course, are the most dangerous of the nuclear weapons. They're the weapons that can strike targets in the other's heartland within the matter of minutes.

The pending START Treaty does this by having a separate sub-ceiling of 4,900 on warheads on ballistic missiles, and it cuts into the core of the Soviet strategic arsenal by dealing separately with a weapon that has always bothered us most, the SS-18, a giant missile much bigger than anything we have, with 10 warheads each. I've a certain amount of affection for that particular provision, because we tried to achieve that in March 1977, as you'll recall, Congressman Solarz. At that point, the Soviet Union would not even entertain the idea. But it is a distinct improvement in getting away from the risk of nuclear war.

I've been quite interested in some of the criticism by people like Richard Perle, people like William Safire, who say that this really doesn't amount to much because the Soviet Union insists on going ahead with modernization of the warhead on the SS-18. But, at a minimum, you can say that, instead of having 3,080 warheads to modernize, they'll have 1,540, a distinct improvement.

And I think it's also interesting that we show no signs of being willing to forgo modernization of our own nuclear missiles. I read today an article in the New York Times that indicates that there's

pressure to reopen Rocky Flats, so we can go ahead with a more powerful warhead on the Trident II missile. Now, as we regard the SS-18 as the most threatening, the Soviet Union, quite correctly, regards the Trident II as the most threatening of our weapons.

And we ought, I think, to get away from the entire idea of further modernization of strategic nuclear forces. I think that ought to be one of the objectives of a START II Treaty. And I think the negotiations for START II ought to begin as soon as we have START I in the can.

The objectives there ought to be to eliminate any possible fear of a preemptive strike. And we can do that in a variety of ways. One is by stopping the tinkering with nuclear weapons. A second would be to eliminate all multiple warhead ballistic missiles, either on submarines or land based.

And then another objective ought to be to tighten up the very loose constraints on cruise missiles. As you know, the treaty that's taking shape undercounts cruise missiles. First, it doesn't include sea-launched cruise missiles in the treaty at all. They're subject only to a separate political statement in which both sides declare the number of weapons that they have. I can guarantee, Congressman Solarz, that if I ever, in my incarnation as a SALT negotiator, brought that sort of an agreement to the Senate of the United States, I would have been either impeached or lynched, because there's no way in the world of verifying that particular type of provision. Not only that, but the political statement will allow as many as 880 sea-launched cruise missiles. Now, that's at least 100 in excess of what we plan to deploy.

With regard to the air-launched cruise missiles, a strategic bomber with 20 air-launched cruise missiles counts as only 10 warheads against the overall ceiling of 6,000 warheads. And a strategic bomber equipped with gravity bombs and short-range missiles counts as only a single warhead.

I think that we ought to recognize that the nature of the threat of nuclear war has now changed dramatically. And the greatest risk today comes from a proliferation of nuclear weapons, from their falling into the hands of combatants in regional conflicts, and also possibly falling into the hands of subnational terrorist groups. It's pretty hard to steal an ICBM and it's at least as hard to hide it. But, cruise missiles are relatively small. They're going to be deployed on a variety of platforms. Virtually any type of ship can carry a cruise missile. And, given the instability to which Dimitri Simes has referred in Eastern Europe and in the Soviet Union and in many of the ports of call, I think that we are taking an extreme risk.

We haven't paid enough attention to the proliferation problem. There are a number of situations around the world today in which the risk of the use of nuclear weapons is far greater than any remaining risk of their use by the Soviet Union, or by the United States.

Just a couple of examples. Take the conflict in the subcontinent of Asia between Pakistan and India over the Kashmir. We know that India is nuclear capable. They exploded what they referred to as a "peaceful nuclear device" back in 1974. The Pakistanis didn't regard it as being all that peaceful, and the then head of Pakistan,

Mr. Bhutto, said that the Pakistanis would eat grass in order to acquire a nuclear weapon. There's every indication they've eaten an awful lot of grass since that period of time.

There is still the bitter conflict on the Korean peninsula, and North Korea has made no secret of its desire to achieve nuclear weapons.

The Middle East, of course, is perhaps the most explosive situation possible. And the injection of more nuclear weapons in that area could have the most tragic of consequences.

So we ought to be concerned about proliferation and about the threat of other countries acquiring nuclear weapons. In that regard, I think that one of the most useful measures we could take would be to go ahead with the comprehensive test ban negotiations that have now been suspended for about 12 years. I think that's the single most effective step we could take to try and curb proliferation.

In addition to having a total ban on further nuclear testing, we ought to go ahead with an idea that was first put on the negotiating table by President Eisenhower back many, many years ago, which is a total cutoff of the production of weapons grade fissionable materials. We're going to be up to our eyeballs in nuclear weapons. With the INF Treaty, with a START Treaty that does involve some significant cuts, the question is going to be, what are we going to do with the excess warheads? We certainly don't need to continue to produce fissionable materials for weapons purposes.

And if we had those two agreements, we should try and make them international agreements with worldwide signatures. But if we had those two provisions, we could then empower the IAEA, the International Atomic Energy Agency, with the kind of clout that would enable it really to do an effective job. We could never be entirely sure that we had caught all of the nuclear weapons but we would have a much much more stable regime than we will have in the absence of this sort of move.

I think we ought to capitalize on the opportunity at this point to have a cooperative international situation, and the international institutions can be far more effective if, in fact, the relationship between the United States and the Soviet Union continues to improve. One of the reasons for the relative nonutility of the international organizations has been the competition between the United States and the Soviets. And with both of us having a veto on the Security Council, that has sometimes effectively prevented the kinds of useful moves that might otherwise have been made.

I know, from my own experience, that the Soviet Union is very worried about proliferation. They've been much more worried about it than we have. They undertook a voluntary unilateral moratorium on nuclear testing back a couple of years ago, and persisted in that for about 18 months. One of the reasons, of course, that they've been more concerned about proliferation is that they always figure that every nuclear weapon that is built is more apt to be directed at them than at us. Hopefully, they will feel less beleaguered in a world in which they are a better neighbor. But we ought to take advantage of their willingness to proceed on the non-proliferation front.

I think that there's no question that our national security is going to be increasingly affected by our own internal situation. Mr. Sorensen has referred to the inadequacies of our educational system, and of course the lack of a proper educational system means that generation after generation is condemned to an eternal cycle of poverty and deprivation. It's the main cause of our drug problem. So that if we can divert our attention from external threats, because of the change in the international situation, and devote more of that attention, more of our resources to dealing with these fundamental problems, then I think that our national security will be very well served, indeed.

Thank you, sir.

[The prepared statement of Mr. Warnke follows:]

PREPARED STATEMENT OF PAUL C. WARNKE

American Economic Power:
Redefining National Security of the 1990's

As soon as World War II ended, the cold war began. Accordingly, for most of this century we have thought of national security largely in terms of military threats. Our defensive posture and our alliances have been primarily structured to deal with the possibility that the Warsaw Pact, led by the Soviet Union, would launch a massive invasion of Western Europe.

Now that threat has reached the vanishing point and, indeed, the Warsaw Pact is now not even a paper tiger. It is therefore imperative that we consider the nature of present challenges to our national security and how we can best deal with them. I congratulate the Committee for undertaking these timely hearings.

Let me first address the question of strategic nuclear weapons. I think it is important that we continue, in bilateral negotiations with the Soviet Union, to eliminate any risk of nuclear war by measures of arms control that free both sides from any fear of preemptive attack. In my opinion, the

START Treaty agreed upon in principle at last week's summit meetings, is a further positive step in that direction. Although this treaty will not achieve the widely advertised 50% reduction in overall nuclear warheads, it will cut in half the Soviet warheads on ballistic missiles. It will do so by setting a subceiling of 4,900 for warheads on ballistic missiles.

The core of the Soviet strategic arsenal is the land-based intercontinental ballistic missile force. Of that arsenal, the largest and most dangerous missile is the SS-18, with ten warheads each. This category is subject to a special ceiling which will eliminate 50% of the 308 Soviet SS-18s.

At the summit, there was also announced a set of objectives for a START II Treaty. Although general in nature, the further qualitative and quantitative controls should put to rest any conceivable concern that either side might have about the survivability of its retaliatory deterrent. For some time, I have believed that the only way in which a nuclear exchange between the Soviet Union and the United States could be precipitated is that one or the other side might panic at a time of crisis and fire first because of the fear that it would not be able to fire second. Both the chance of a major East-West crisis and any worry about the

possible vulnerability of our retaliatory deterrent can no longer be regarded as threats to our national security.

For the future, the greatest danger of nuclear war will derive from regional conflicts fueled by ethnic and religious hostility and border disputes. In short, we should focus on the prevention of nuclear proliferation. The Kashmir dispute on the Asian subcontinent involves India, that exploded a nuclear device sixteen years ago and Pakistan, that has made no secret of its intention to find a compensating nuclear capability. There are legitimate concerns that nuclear weapons may be acquired by North Korea and by the Arab states in continuing bitter confrontation with the State of Israel. Israel itself, along with South Africa, is widely believed to have nuclear weapons or the ability to build them rapidly.

Under these circumstances, we should turn away from our preoccupation with further modification and modernization of our strategic nuclear forces and concentrate on measures that will retard the creation of new nuclear weapon states.

In this regard, I believe it is a mistake to continue the present laxity of controls on nuclear cruise missiles. In the emerging START Treaty, nuclear sea-launched cruise missiles are not included in the treaty ceilings. They are subject

only to a separate ceiling in a separate political declaration and that ceiling of 880 is substantially larger than the number we plan to deploy.

Air launched cruise missiles with ranges in excess of 600 kilometers are only half counted. Our strategic bombers can carry as many as twenty, but will be charged as only ten warheads. Accordingly, there will be an actual increase in the numbers of cruise missile warheads. This seems to me to be unwise. Because of their relatively small size and the variety of platforms from which they can be launched, these weapons will be vulnerable to capture by unstable or hostile governments or even by subnational terrorist groups. This danger is aggravated by the turmoil in Eastern Europe and within the Soviet Union itself. It is impossible for me to see why we need to increase cruise missiles and retain a total number of warheads around 10,000. The notion that we need anything like that number of warheads in order to attack 10,000 or so Soviet targets is at best obsolete if indeed it ever had any rational basis.

Other steps that should be taken to control nuclear proliferation are the resumption of negotiations looking toward a comprehensive ban on nuclear weapons testing and the initiation of talks on a complete cutoff of weapons-grade

fissionable materials. With the removal of warheads under the INF Treaty and the prospective START Treaty, the stockpile of nuclear weapons materials will be increased beyond any possible military utility. Moreover, with a comprehensive ban on nuclear weapons testing and the prohibition of the production of plutonium or highly enriched uranium the International Atomic Energy Agency can be given a comprehensive charter and wide-ranging inspection authority.

The concept of national security inescapably contemplates a healthy and prosperous society, with a strong economy and an educational system that prevents the perpetuation of poverty and ignorance and allows the next generations to escape the cycle of despair, drugs and crime. We need look only to the Soviet Union itself to see clearly that military power does not ensure national greatness or even national viability. While citing and celebrating the failure of Communism, we should not assume that this automatically ensures the success of our own political, economic and social system. For those of us who have had the advantage of a caring family and a good education, things are working very well indeed. For those of our fellow citizens who have lacked these advantages, there is no individual security and their continuing if not growing number now constitutes a threat to national security.

I am not suggesting that we should preoccupy ourselves with our own internal domestic problems at the expense of international engagement. I believe that we should continue to be an active participant in the Western Alliance and be open to expanding the institutions that have the potential to involve all the countries in Europe, including the Soviet Union, in a new security structure.

I believe that this continuing engagement can be facilitated by retaining some American military presence in Europe. If no longer needed for deterrence, this can provide a degree of reassurance in a Europe of changing relationships. In this regard, it seems to me that a larger Germany and a somewhat smaller Soviet Union can live with one another and with their European neighbors more comfortably if the United States remains a participant in North Atlantic affairs. This participation, however, does not require a continuing defense budget of 300 billion dollars a year. A good part of that expense can be diverted to programs that promote genuine national security in a world where external military threats are disappearing and our internal social difficulties continue to increase.

Representative SOLARZ. Mr. Warnke, your timing was exquisite. We have another vote, so we'll stand in recess. And then when I return, we'll begin the questioning.

[A short recess was taken.]

Representative SOLARZ. The committee will resume its deliberations.

GREATEST U.S. THREAT IS ECONOMIC CHALLENGE

I want to thank all of you gentleman for bearing with me while I go to the floor for these repeated votes. It's a hell of a way for a grown man to earn a living, traipsing back and forth between these buildings. Nevertheless, here we are.

How would each of you respond to the proposition that, given the developments which have taken place in the Soviet Union and Eastern Europe over the last year or so, that the main threat—not the only threat, but the main threat—to our national security is no longer the threat of Soviet military aggression but rather the economic challenge we face from Japan, a unified Germany, an integrated Europe, and perhaps the newly industrialized countries of Asia, a threat which takes the form of an economic competition which, if unmet, would eventually lead us into the same kind of slow but steady decline that other formerly preeminent powers have faced over the course of history?

Mr. SORENSEN. Clearly, from my testimony, that's exactly what I believe. An economic threat cannot compare with the possibility of nuclear launch, accidental or otherwise, from a chaotic Soviet Union, but, in terms of order of probability, the economic threat is one that we clearly must address.

Mr. WARNKE. I certainly agree with that. And I think it's not only a question of devoting more of our political attention to the economic front, but it's really a question of trying to change the thinking of some of our business executives. I've been practicing law now for 42 years, some of my best friends are business executives, but a lot of them are now in service industries. I mean, they used to be in manufacturing industries. A lot of those manufacturing industries have been converted, and we've abandoned a lot of the products that we used to sell worldwide. We're not making enough things that people overseas want to buy.

Just take automobiles as perhaps one of the more conspicuous examples, and a lot of the high-tech items. There's just been too much emphasis on the price of the stock, and not enough emphasis on making things well.

Mr. SIMES. Well, Congressman Solarz, I completely agree with your proposition in the long run. In the short run, I still believe that managing the disintegration of the Soviet empire is very important because, if it is not done right, we may have very serious problems before we begin to be preoccupied with Western Europe and Japan.

THE DISINTEGRATION OF THE SOVIET EMPIRE

Representative SOLARZ. Well, you sketched out in your testimony, Mr. Simes, a rather scary scenario about what could happen in the context of the disintegration of the Soviet empire to the stores

of nuclear weapons and other weapons of mass destruction located throughout the Soviet Union.

To the extent that this is a potential problem, is there, in fact, anything we can realistically do about it?

Mr. SIMES. I think that we obviously primarily by standards. Incidentally, it was not my scenario. I just repeated what Foreign Minister Eduard Shevardnadze said in his speech at the Foreign Ministry, and I simply identified with what he said. I think that we have to be very careful not to contribute to instability in the Soviet Union, and not to allow our preoccupation with the fortunes of one man, as important and distinguished as this man is, to obscure our judgment.

THE THREAT OF NUCLEAR PROLIFERATION

But let me mention another thing. In addition to problems with Western Europe and Japan, ably described by my colleagues, I think that we have to be concerned increasingly with what Mr. Warnke talked about. Namely, a combination of new weapons technologies and nations which do not have the same constraints that we do and which have very different aspirations. Throughout history, a combination like that was a prescription for very major trouble.

THE THREAT OF A CRUMBLING INFRASTRUCTURE

And then I finally will make a brief comment. I came to this country 17 years ago, Congressman Solarz, and I am convinced that when I came to this country, if you were traveling across Europe and across the United States, there was no question where the infrastructure was more impressive. The way people lived better, whose products were better, and the same was even more true if you make a comparison with Japan. It's quite clear that as those criterion are becoming crucial, we are further and further behind.

THE OMNIBUS NATIONAL SECURITY ACT OF 1990

Representative SOLARZ. Now, since we more or less seem to have an agreement that the main challenge we face is likely to take an economic character, let me explore with you first, in general, and then in more specific terms, an approach to this problem that I've tried to develop during the course of these hearings, recognizing that there is no panacea for the problem which, all by itself, will solve it. But given the resources available to the Congress and the manner and mechanisms through which the Congress can operate, I'd like your thoughts about whether the following approach, in general terms, would make sense.

It would involve legislation, which I've tentatively entitled "The Omnibus National Security Act of 1990." That would provide, over the course of the next 5 years, for the elimination of the Federal deficit, on the grounds that it is a significant impediment to the kind of economic growth which we need, while simultaneously providing substantial additional resources for investment in our human resources and physical infrastructure, in an effort to help make the country more competitive economically, particularly viza-viz the other industrialized countries in the world.

The total package of deficit reduction plus additional spending—and the additional spending would be roughly about \$30 billion over 5 years in the area of education and job training and about another \$30 billion in the area of our physical infrastructure, including roads, bridges, highways, mass transit, air travel, and the like—would come to around \$600 billion. That would be financed through a combination of cuts in defense spending and increases in revenues.

Now, before getting into the specifics of the defense cuts and the revenue increases which such an approach might entail, I'd like to ask you in general terms whether you think legislation along these lines, providing over 5 years for the elimination of the deficit plus substantial new resources to be invested in education and in infrastructure, would make a significant contribution to the ability of the country to cope with this economic challenge which you all agree is likely to constitute the main threat to our national security.

Mr. SORENSEN. Congressman Solarz, you and I have discussed your proposal before, and I think the concept is a very good one. I'm not a professional economist—and my other habits are good, also, as someone once said—but I know enough to express some concern about assuming automatically that, 5 years from now, you'll want a zero deficit. You may want a slight surplus, you may want a slight deficit, you may even want a large deficit or a large surplus, depending upon the conditions of the economy. So, while deficit reduction is certainly an important part of strengthening our economy, I'd be careful about locking yourself in, as Congress has locked itself in during these last few years.

But are education, job training, and renewed infrastructure important to our national security? They certainly are.

Mr. WARNKE. I certainly enthusiastically agree. I think this kind of approach is absolutely essential. I'm delighted to find that you're not afraid to say the "T word."

Mr. SIMES. Well, I'm also in complete agreement, with two additions. It seems to me that the deficit is the tip of the iceberg. And there are very serious problems which have to be addressed, and unless they are addressed, nothing is going to change fundamentally.

IMMIGRATION REFORM

One, I think, is the immigration reform. I do understand that it's much more popular and easier to declare the war on drugs than to try to control immigration, but if this is not addressed, I think we're going to be in a great deal of trouble, and it will be more difficult to legislate, for people like you, at the beginning of the 21st century.

Second, I think we have a fundamental problem—

Representative SOLARZ. You've come to the conclusion, based on your 17 years as an immigrant to the United States, that we need to control immigration if we're going to salvage the future of the country?

Mr. SIMES. Well, I came to the conclusion on the basis of my 17 years in this country and my study of world history starting with

Rome, that uncontrolled immigration destroys a good concept and is bad for everyone, including immigrants.

Representative SOLARZ. You ought to be careful with this line of thinking, Dimitri, because somebody might be so convinced that they decide to apply it retroactively with a 20-year grandfather clause.

Mr. SIMES. I am a patriot and I am willing to be sacrificed for the good of the republic.

Representative SOLARZ. And second?

Mr. SIMES. And second, I think we have to listen seriously to people like A. Marita, even if the way they say it, as they say, is not most tactful, kind, and gentle. And we have to appreciate that in terms of our work ethics and particularly in terms of work ethics of our business executives who are going in a very wrong direction, which will make it difficult to compete, and appropriate tax incentives and disincentives are very much in order.

THE DEFENSE PART OF THE OMNIBUS NATIONAL SECURITY ACT OF 1990

Representative SOLARZ. Let me ask you now to focus in on the defense part of this package, keeping in mind two primordial facts of life. The first is that the Soviet threat has obviously greatly declined but, second, in an unsafe and uncertain world, there are residual threats which may require a military response from our country which we may not, at the present time, be entirely able to anticipate, so unilateral disarmament is no more of an option today for anyone seriously concerned about the future of the country, than it was during the height of the cold war.

It's quite clear that, if we're going to come anywhere near reaching this figure of \$600 billion over 5 years, or anything in that vicinity, they're going to have to be some significant reductions in defense spending. I'd like to know whether you would—and I realize now we're talking in very general terms, but I just want to lay out one option and get your reaction; whether you think it goes way too far, or whether you think it doesn't really go far enough. I have in mind a proposal in which we would reduce the defense budget over the next 5 years by 30 percent in real terms. Based on some figures that have been generated for me by the CBO, this would be compatible with reduction in total number of Army active divisions from 18 to 10; it would reduce the number of carrier battle groups from 14 to 10; it would mean that we wouldn't proceed with the B-2; Trident subs, instead of 18, which we have now, we'd go down to 17; we'd still have 50 MX's but not move the mobile MX. This would save us about \$150 billion over the next 5 years.

And I'd like to know whether you think that's probably more or less about right, or it doesn't go nearly far enough, or is perhaps too much of a cut, given the potential threats we might face.

Mr. SORENSEN. Can you first tell me upon whom all of those Tridents and MX's that remain will be targeted?

Representative SOLARZ. Well, I assume they would be targeted primarily on the one country that retains a sufficiently significant nuclear force targeted at us, in order to make sure, if worse comes to worst, that we still have an adequate basis for deterring them from using their weapons against us.

It seems to me, and this is really for the purpose of drawing you out, but it seems to me that in terms of deterrents, if there is any one defense requirement which remains for the foreseeable future, it is the requirement to maintain an invulnerable nuclear response capacity in order to make sure that, in the event the situation in the Soviet Union dramatically takes a turn for the worse—if there was some coup, for example, or if some Russian nationalist elements were able to take power, or, if in the context of a crumbling empire and deteriorating economy, some adventurous efforts were made to distract the attention of the people—that we had the capacity to rationally deter them from any nuclear attack against us. And to the extent that requirement remains, I should think that our Trident submarines constitute the most significant and essential element of our nuclear deterrents, since they're the ones that are the most invulnerable.

Mr. SORENSEN. I agree with you, Congressman Solarz, that the worst that could happen would be a nuclear attack from the Soviet Union or, indeed, as Paul Warnke said in his testimony, from some irresponsible government or terrorist group. But going back again to the probability tables, while no one can predict what will happen in the Soviet Union, just as no one predicted what has happened in the last 12 months, the notion of a deliberate Soviet attack upon the United States, by this government in Moscow or any imaginable successor government, seems to me to be quite low in the order of probability. As a result, the nuclear deterrent, while it should be maintained, need not be maintained at that high level using up that amount of funds. We cannot unilaterally disarm; I think conventional forces, which in the long run are more expensive than nuclear forces, are going to be required and our ability to project them rather quickly to all parts of the globe for low level intensity conflicts will be necessary. But I think we need a very different examination of our strategic forces.

Mr. WARNKE. I have a feeling, Congressman Solarz, that that's quite a conservative approach. But it probably is about as much as you can get done in the next 5 years. It's awfully hard to stop the momentum of the defense buildup. Now, I do think that we can restructure it in very many respects. I certainly agree, we don't have to have a rail mobile system for the MX. Even in strategic terms, it was a poor idea anyway.

I don't think we need to spend the vast amount of money that we would need to have a very significant Midgetman force. I think we have the best possible mobile missile at the present point, and that's the Trident missile. It serves every purpose that a mobile missile can serve, and it is even less vulnerable to any sort of pre-emptive attack.

I think certainly you can come down from 14 carrier battle groups to 10. I think, actually Sam Nunn, the chairman of the Senate Armed Services Committee, has said that, too. I think certainly the idea of building as many as 75 Stealth bombers, at a cost which would go up to more than \$800 million each, is an idea whose time has passed. You can't find a sensible mission for the Stealth bomber.

I think, in addition to that, that there are very many things we could cut without really interfering with our defense capability.

We have to maintain a nuclear deterrent for a couple of purposes. First, if it were to appear that the Soviet Union had meaningful nuclear superiority, that would be a political disadvantage to the United States. And our forces can serve not only a deterrent purpose but a reassurance purpose. And from that standpoint, as indicated in my prepared statement, I think we should maintain some American physical military presence in Europe. I think that does serve the cause of reassurance.

Representative SOLARZ. Do you know offhand, Mr. Warnke, what the operating costs are for our Trident subs? In other words, how much it costs us to operate 17 or 18 of them?

Mr. WARNKE. I have that figure some place, but not in my mind.

Representative SOLARZ. So your feeling, then, is that on the merits, we could probably have more than a 30-percent cut without endangering the national security but probably this is realistically the most we could get, and it's certainly consistent with our national security?

Mr. WARNKE. I think that's absolutely true.

I participated in a study group that was chaired by Larry Korbe, who was an Assistant Defense Secretary under President Reagan. And we concluded that you could have a 50-percent cut in 10 years with very little difficulty.

Representative SOLARZ. Well, just in case you're interested, I have a chart here which indicates that Secretary Cheney has proposed 12.5 percent reduction over 5 years. Senator Nunn, to whom you referred, I gather is talking about a 25-percent cut. So this 30 percent is incrementally beyond Senator Nunn's but somewhat short of the 50 percent.

Mr. WARNKE. I think it's certainly totally consistent with our national security.

Mr. SIMES. I think it is absolutely consistent with our national security, and I agree with Mr. Warnke that it is conservative. What I would hope is that it is not a cut across the board. That we look at those forces which are directed specifically against the Soviet threat, both nuclear and conventional.

For instance, I think that we may cut very significantly our conventional forces, including Air Force, in Europe. Where I think I am uncomfortable is when we talk about aircraft carriers. In my view, we have to anticipate the possibility of losing many of our current bases. And moreover, some of the bases which are still ours, that we would not be able to use as freely as before. And consequently, I think we need greater force projection capability.

Representative SOLARZ. Well, as a practical matter, I should think that the way we'll have to deal with this in the bill would be to simply establish the upper limits on what can be spent on defense, and then leave it to the appropriate committees and the legislative process to determine how its allocated. It would, of course, be important, for illustrative purposes, to be able to demonstrate what kind of force structure would be compatible with a budget of that amount.

Well, you all seem to think this is conservative, and we can probably do a little bit more. Is there a consensus among you that a 50-percent reduction in real terms over the next 5 years would more or less be the appropriate target to shoot for?

That's clearly Mr. Warnke's view.

Mr. WARNKE. No. I said 50 percent in 10 years.

Representative SOLARZ. In 10 years.

Mr. WARNKE. So that your approach would be a little more ambitious. But I think that the situation has changed enough in the months since that task force report to justify a further cut.

Representative SOLARZ. Mr. Sorensen?

Mr. SORENSEN. I'll see your 50, and raise you 10 more.

Representative SOLARZ. Mr. Simes.

Mr. SIMES. I think it was a conservative figure, but I'm a conservative man.

POSSIBLE REVENUE OPTIONS FOR THE OMNIBUS NATIONAL SECURITY ACT
OF 1990

Representative SOLARZ. Let me ask you about the revenue options here. I've tried to put together a list of some of the possibilities that might be included in such legislation. I will mention a few, and then perhaps you can respond if you have some alternative suggestions.

First of all, it would presumably have a few cats and dogs, by which I mean, proposals that whatever their merits would not generate really large sums of money. For example, some of the sin taxes, if you double the current alcohol tax, you get \$3.8 billion a year. If you double the cigarette tax, you get \$3.1 billion a year. Of course, it adds up to a little bit more over 5 years. If you extend Social Security to all State and local employees, you get \$6 billion a year.

The really big ticket items, it seems to me, would be an energy tax. Illustratively, if we had a 25 cents a gallon increase in the Federal gasoline tax, you'd get \$25 billion a year. And, in addition to energy taxes, increases in the income tax.

If you eliminated the bubble, you get \$8.8 billion a year. If you added a new 30-percent bracket on top of the \$28, you'd get \$10.4 billion a year. There's a possibility you could add a 35-percent bracket. You'd get \$10.4 billion from a new 30-percent bracket. You'd get \$8.8 billion by eliminating the bubble.

It seems to me the only other alternative as a major revenue raiser, other than an energy tax and some increase in the income tax, preferably at the upper end of the scale, would be a value-added tax, although there seems to be very little political support for such an approach.

So I'd appreciate it if you could just sort of generally speculate about some of these options that I've laid down and what you think would be appropriate. If you have any other thoughts, obviously I would welcome them. Keep in mind, if we're talking about eliminating the deficit over 5 years—and I take Mr. Sorensen's point—you know, you may decide really that it's best not to entirely eliminate it or to have a surplus—but assuming that was the target, and of course, this can be adjusted as time goes on, I mean, the Congress can enact new legislation, we're not talking about a balanced budget amendment which locks it in for which a super majority is required, but if the target, which we all more or less seem to agree on is a worthy target, is eliminating the deficit plus putting in new

money for education and infrastructure, we have roughly a \$600 billion nut that has to be cracked over 5 years.

Now, if you have a 30-percent cut in defense spending, that generates \$150 billion. That leaves \$450 billion to go to make up the difference. And I suppose some could be found in cuts in domestic spending, although I wouldn't anticipate major amounts would be available for that.

So looking at the revenue side of it, realizing we have to get \$450 billion or so, what do you think of these options? Or do you have any alternatives you'd suggest? Or, upon reflection, looking at these options, do you think they're so onerous and counterproductive that you've decided to rethink the whole idea?

Mr. SORENSEN. I don't regard any of them as that onerous, because I think our national security is at stake. While waiting for our President to lead on revenue raising matters, it's certainly worthwhile discussing what possibilities are available.

Representative SOLARZ. Ted Sorensen, let me just say here, particularly for the record, if anybody should be listening in, that I think it's quite obvious that there are no possibilities whatsoever for the enactment of any of these measures without strong leadership from the White House.

Mr. SORENSEN. Exactly.

Representative SOLARZ. And I don't know exactly what they're discussing over at the summit, but I do think it's important for this committee to entertain all possibilities. It remains to be seen what we ultimately accept and recommend. But it would be a sad day for America if we were precluded from even discussing such possibilities in relationship to our emerging national security problems.

Mr. SORENSEN. I don't have any magic answers for you. But I suggest that your staff could conduct some very useful research on what goes on among the other industrialized countries and trading powers in this area. It's my impression that we are among the most lightly taxed of all of the industrialized countries and trading powers.

Representative SOLARZ. Your impression is correct.

Mr. SORENSEN. It is also my impression that you could triple the sin taxes, rather than double them, and still not raise them to the level that they have reached in many other countries, and the same is true of energy and gasoline taxes. I hope your staff will look at that.

Representative SOLARZ. To what extent would you be concerned about the regressive impact of sin taxes and gasoline taxes?

Mr. SORENSEN. I regard the increase of the sin taxes as good for the national health and, in that sense, not regressive. I regard the increase in energy taxes as good for our economic independence. Therefore I don't worry about the regression.

Representative SOLARZ. And you're, of course, testifying on the basis of, what is it now, I guess over three decades of experience in national policy and politics, you've devoted much of your life to trying to make this a better country, but you've also operated the nexus of what is desired and what is possible.

In light of the experience which befell Mr. Mondale when he had the chutzpah to suggest that taxes were necessary and perhaps in-

evitable, do you think that revenue increases of this magnitude are politically feasible at the present time?

Mr. SORENSEN. First of all, I think Mr. Mondale was guilty of candor, not chutzpah, that he simply spoke realistically; and that he lost for a variety of reasons of which I would rank that last.

I think that increased revenue is possible. I think, even today, after a 10-year drumbeat against the idea of turning revenue over to the Government, people are willing to support higher taxes when they are confident that those revenues are going to be devoted to something important and useful.

Representative SOLARZ. Apropos of what you've just said, I gather that the referendum in California calling for a doubling of the gasoline—I don't know if it was a doubling of the gasoline tax but it was a significant increase—has just been approved.

Mr. SORENSEN. That's my understanding.

Representative SOLARZ. And inasmuch as California was the home of proposition 13, which first set off this antitax movement around the country, that may have some very special political and symbolic significance.

Mr. Warnke.

Mr. WARNKE. I certainly agree. It seems to me that you're not going to be able to generate enough additional revenue except by an increased gasoline tax, and by an increase in at least the top bracket of the income tax. And I do think people will accept it if it's explained to them that this is absolutely essential to our national security. Nobody's tried to do that. I don't really think that the American public is all that greedy.

And as far as the gasoline tax is concerned, it's absurd that we have so many single person commuters. And I support anything that somehow penalizes the free ride that you get by using a private automobile with very, very low gasoline charges.

Representative SOLARZ. It sounds like you've been caught on the beltway lately.

Mr. WARNKE. Fortunately, I live close enough to my office, so I don't have that problem.

Representative SOLARZ. Mr. Simes, I know you're not asked to comment that often on American Tax Code, but there's always a first time.

Mr. SIMES. And I'm not really going to because, while all of us have views, I think that it's my responsibility to express views when they're believed to be reasonably well informed.

I would simply say, as probably the only person at this table who voted for George Bush, I think that if you are talking about sin taxes, gasoline taxes, we are talking about something reasonably noncontroversial, reasonably. If you are beginning to talk about an income tax, I think that many of us will be deeply uncomfortable if it is done in the period when the Soviet threat is declining, when people are expecting peace dividends, and especially if there would be no considerable cut in domestic statement spending.

IMPLEMENTING THE REVENUE-RAISING OPTIONS

Representative SOLARZ. Now, I'd like to ask particularly Mr. Sorensen and Mr. Warnke, how you think we can muster the political

will necessary to move along these lines. And let me put it in the context of some historic analogies.

My sense of American history is that when the American people recognize they have a real threat, it's possible for the political leadership to galvanize the Congress and the country into taking the necessary actions. But when they don't perceive a real threat, even the most effective leadership may not be adequate. For example, we were very lightly armed prior to our involvement in the Second World War. Yet, Roosevelt succeeded in turning the country into the arsenal of democracy once the threat was absolutely apparent.

President Kennedy—and I'm embarrassed to say I forget—but when the Soviets put Sputnik up, pardon, 1957, or when President Kennedy announced the target of sending a man to the Moon, I think it was in response to some Soviet space achievement.

Mr. SORENSEN. Right.

Representative SOLARZ. They had put—

Mr. SORENSEN. A man in orbit.

Representative SOLARZ. A man in orbit. And presumably, that focused the attention of the country and it was then possible to mobilize sufficient support for the resources that were needed to achieve the objective of putting a man on the Moon.

This economic challenge we face, while very serious, is much more amorphous than the kind of threats we've faced in the past. So how do we convince the American people that the threat we face is sufficiently serious to justify what they will perceive as a very great sacrifice on their part?

Mr. SORENSEN. There's no easy answer to that. I might analogize it to President Kennedy's battle to increase foreign aid, which was emotionally and politically and heatedly resisted, but which reached a higher percentage of our budget during his presidency than, I believe, at any other time, perhaps even including the Marshall plan. I remember him saying at the time. "it was easier when they could see the enemy from the walls." He recognized that foreign aid and poverty and chaos in far off lands were not enemies that the American people were likely to recognize. But he did it. And that's why I am not sure that I would separate the perception of the threat by the American people from the galvanizing leadership of the American President and other leaders.

I think that is the responsibility of the President, and our other leaders, but the President has the best opportunity to put these problems in perspective—to point out that these are indeed threats to our national security, as your hearings have indicated, that our economic independence and effectiveness—indeed, our very standard of living—are being adversely threatened, and that strong measures are required in response.

Representative SOLARZ. Do you think that if the President decided to go to the Nation with a program along the lines we've been discussing and laid out the facts, and told the American people that if we are going to keep the American dream alive, if we are going to maintain our preeminent place among the nations, and if we are going to give our children a better life than the one we lead now, we have to do these things, and here's what it's going to take in terms of some increased revenues as well as cuts in defense

spending, do you think he could carry the country with him on this?

Mr. SORENSEN. I think he would outrage some members of this body and the other body and assure his reelection in 1992.

Mr. WARNKE. I agree with that. We really aren't talking about any serious sacrifice. I mean, if my tax rate went up to 35 percent, believe me, that wouldn't hurt much.

Representative SOLARZ. I don't know where you were in 1980, but if you were in the top bracket then, you'd still be paying only half of what you are paying now.

Mr. WARNKE. Substantially less.

When I first got out of the Government in 1969, my top tax bracket was 70 percent. So you're now talking about something that's one-half of what the tax rate was at that point. And then, as I say, as far as the gasoline tax is concerned, just drive your car less, take more public transportation. You could save that amount of money quite easily.

Representative SOLARZ. Let me tell you an interesting figure. I don't know how much it would mean to the American people, but even if a 25-cent-a-gallon-gasoline tax in real terms, the cost of a gallon of gasoline would be less than it was in 1973 at the height of the embargo.

Mr. WARNKE. Right.

Mr. SIMES. Congressman Solarz, my I try on this?

Representative SOLARZ. Certainly.

Mr. SIMES. I'm becoming a little uncomfortable with the discussion. Because what I hear, and I hope I'm wrong, that after we've discussed very sophisticated and complex international challenges, we are somehow arriving at the conclusion that the best response to them is, one, to cut defense spending, and two, to increase taxes on the American people. And it seems to me that unless defense spending is cut in the right way, and unless certain things may be increased in terms of our defense readiness, and unless this increase in taxes is an integral part of a much larger reform, we would be misleading the American people to believe that the sacrifice would be justified and would bring results.

Representative SOLARZ. Well, I fully agree, but that is precisely what I've outlined. I mean, part of a comprehensive approach that involves not just reducing the deficit but providing resources for investment in certain critical areas where we have to invest more if we're going to meet these challenges. I also happen to think, and the legislation will provide this, that it's important to link any increases in domestic spending to performance standards in order to provide the American people some assurances that we're not simply writing checks and sending them out in the expectation that all you have to do to solve problems is to make resources available. If money isn't spent well, we've learned by now it's better not to have been spent at all.

Now, Mr. Simes, you spoke at some length about the dangers created by the emerging instabilities in the Soviet Union. And you suggested, therefore, that you found yourself in the anomalous position of saying that we had an interest in helping the Soviet Union preserve such stability as it can. Yet, I gather that you have publicly expressed some displeasure over the fact that President

Bush signed the trade agreement at the summit without receiving some assurances on Moscow's policy toward Lithuania.

THE INSTABILITY OF THE SOVIET UNION

If you really believe we have an interest in stability in the Soviet Union, given the degree to which the apparent or incipient collapse of the Soviet economy is a major source of potential instability in the country, wouldn't it follow from your analysis that a new trade agreement, presumably MFN, would, if only marginally, do more to contribute to stability than to instability?

Mr. SIMES. I agree with my friend and colleague from the Soviet Union, A. Borovik, the reporter who, when appearing on "Nightline," said that a blood infusion into a corpse cannot work.

Representative SOLARZ. Say that again.

Mr. SIMES. Blood infusion into a corpse cannot work. And the point is that the Soviet system as it exists today simply would not benefit—

Representative SOLARZ. A blood infusion?

Mr. SIMES. Yes.

Representative SOLARZ. Oh. I thought you said blood and fusion.

Mr. SIMES. No. I know what I meant to say, and you said it much better. And the point is that if you want to help the Soviet Union, you have to encourage President Gorbachev to do what Aleksandr Yakovlev, as I read it, is encouraging him to do, Eduard Shevardnadze and a number of others, to accept that the system is beyond salvation, that this empire is beyond salvation, and his party is beyond salvation, and align himself with those who are in favor of radical reform. Before Mr. Gorbachev came to this town, he talked to Lithuanian legislators and told them, suspend your independence declaration and in 2 years, you will have your independence. After his little encounter with President Bush, he said, if they suspend their declaration, maybe it would be from 5 to 7 years.

I wonder what happened during the Washington summit that changed Mr. Gorbachev's timetable? And, I repeat, in my view, every additional month of trying to preserve the Soviet empire against angry population is destabilizing the Soviet Union.

HOW THE SOVIET UNION COULD OBTAIN MOST-FAVORED-NATION STATUS

Representative SOLARZ. Let me ask you a conceptual problem. Ever since the enactment of Jackson-Vannick in 1974, we've had one target which the Soviet Union had to reach in order to qualify for MFN. If we add to that some commitment on the part of the Soviets to self-determination for the Baltics or to a process of negotiations without economic pressure, to some extent we've changed the target. If we do it for the Baltics, why not other issues? To what extent are there, in fact, not substantial numbers of problems in the Soviet Union that cause legitimate concern here, not just in the Baltics?

I mean, and so, if that is the case, where do you draw the line?

Mr. SIMES. I have a very simple answer for you. You have a very separate case of the Baltics. I am not talking about Gorbachev granting them independence, or even agreeing to supply them with subsidized energy. That, in my view, should not be the re-

quirement nor the linkage. But there are two different sets of international obligations: in one case, the United States for 50 years refused to recognize the incorporation of these three republics into the Soviet Union. There was no other part of the Soviet Union which you would not accept as a legitimate part of the Soviet Union. That is point No. 1.

Point No. 2, there is a piece of Soviet legislation which was passed by the Supreme Soviet in October and which grants just the three Baltic republics, just them, a special economic status inside the Soviet Union, allowing them to conduct independent foreign economic relations. Which says, and there is the signature of Mikhail Gorbachev there, which in principle allows us to say that these republics are entitled to obtain energy and other economic assistance wherever they want on the basis of Soviet legislation.

My hope is that the Soviets would stop the economic blockade of Lithuania and would allow Lithuania to obtain supplies wherever they want to. If they do that, I see no problem; if they don't I don't see how you can sign a trade agreement with a nation which, at that very moment, is blockading another nation.

Representative SOLARZ. So you would link MFN to a willingness on the part of the Soviet Union to terminate its economic blockade of Lithuania?

Mr. SIMES. Absolutely. And Boris Yeltsin is willing to supply the Lithuanians with energy. All Mr. Gorbachev has to do is to allow the Russian republic to exercise its sovereign right.

Representative SOLARZ. Is Mr. Gorbachev in a position, under the Soviet Constitution, to prohibit the Russian republic from trading with Lithuania?

Mr. SIMES. Not to the best of my knowledge.

Representative SOLARZ. Well, if that's the case, then presumably the problem will shortly be solved. Mr. Yeltsin is prepared to have Russia trade with Lithuania, and if Mr. Yeltsin can muster a majority in the parliament of the Russian republic, then they will proceed to trade with Lithuania and Mr. Gorbachev can't do anything about it. Then the blockade is effectively terminated.

Mr. SIMES. Congressman Solarz, this is very much my hope. But I also know that when the Moscow City Council, the new majority there was elected and it was not to Mr. Gorbachev's liking, in the relation of Soviet Constitution, he passed a decree that there would be no demonstrations in the center of Moscow without his special permission. Mr. Gorbachev has a talent for interpreting the law in his own way.

Representative SOLARZ. Mr. Sorensen and Mr. Warnke, what would be your view about any additional linkages on MFN with the trade treaty with the Soviet Union, above and beyond the criteria embodied in Jackson-Vanik?

Mr. SORENSEN. In my view, MFN is a status of normality in trade. And trade, by definition, means equal benefit to both sides. Therefore, while I would not grant trade preferences to countries engaged in practices that we find abhorrent or a threat to our security, I see no reason why we should withhold MFN any longer from the Soviet Union, once it has met the conditions of Jackson-Vanik.

Mr. WARNKE. I would agree with that. I just don't think we can rationalize granting most-favored-nation treatment to the People's Republic of China when they're doing what they're doing in Tibet, which is infinitely more egregious than anything that Mr. Gorbachev is doing to Lithuania.

Mr. SIMES. Two wrongs don't make one right.

Mr. WARNKE. Well, you ought to have a consistent policy. And I certainly think that if the PRC deserves MFN treatment, that the Soviet Union does, once they comply with Jackson-Vanik.

NUCLEAR PROLIFERATION

Representative SOLARZ. Now, Mr. Warnke, you spoke about the problem of nuclear proliferation.

Mr. WARNKE. Yes.

Representative SOLARZ. Obviously, it's a very serious problem. It's one I've given a lot of thought to over the last decade or so. And I just returned, as a matter of fact, from the subcontinent where I went precisely in order to see what, if anything, could be done to diminish the possibility of what would well be the first nuclear war since the end of the Second World War. But it's not clear to me what we can really do about this. And I'd appreciate any more specific thoughts you might have.

I mean, we have tried, with various degrees of ineffectiveness, to get other countries to refrain from providing nuclear technologies to those countries that are bent on acquiring this capacity. Given the fact that greed exists in the world, and countries want commercial benefits and the like, it's not at all clear to me how we can effectively prevent countries that really want to obtain a capacity which is now technologically possible from obtaining.

Mr. WARNKE. I think that the best way to approach that, Congressman Solarz, would be to deprive nuclear weapons of their special cachet. I mean, here we have what? I don't know how many nuclear warheads we have in our total inventory at the present time but it's immense. And, at the same time, we say we have to keep on testing, because we have to modernize our nuclear forces. We say that despite the fact that in 1963 in the Limited Test Ban Treaty, we pledged ourselves to seek a total ban on all testing of all nuclear weapons for all time. We repeated that in the Nonproliferation Treaty in 1968. And we haven't lived up to that international pledge. And we appear to attach superpower significance to virtually unrestricted development of nuclear weapons.

Now, under those circumstances, it's very difficult to bring the moral conscience of the world to bear against further proliferation of nuclear weapons. And then, as I've said, in addition to controlling our own nuclear arsenals, and going for a comprehensive test ban, we ought to try and get universal agreement to a cutoff of production of weapons grade fissionable materials. And I think under those circumstances, it would be more difficult—not impossible but more difficult—for additional countries to get into the nuclear weapons business. But, as it is, what we're saying to them is that, you can trust us, you can trust the Russians, you can trust the Chinese, you can trust the British, you can even trust the French. But we don't trust you.

Representative SOLARZ. Mr. Warnke, I saw some stories a while back that, in effect, seemed to be saying that, because of the counting rules in START, that even after an agreement, we will end up with more nuclear weapons than we have at the present time.

Is that true?

Mr. WARNKE. That is theoretically true. It would depend, I think, on having the full fleet of B-2 Stealth bombers, because that's the only way you could generate that number of warheads. We have at the present time about 12,000. You can easily generate between 9,000 and 10,000 with the restrictions of START.

It would mean some transfer of warheads from ballistic missiles to cruise missiles, which are less dangerous because they aren't potential first-strike weapons. But it still means we would have some 9,000 to 10,000 warheads.

THE POSSIBILITY OF A SOVIET THREAT

Representative SOLARZ. Mr. Simes, what do you think is the possibility, given the situation in the Soviet Union, that a situation could develop where the Soviet Union once again posed a very serious military threat to the United States?

Mr. SIMES. Well, if you are talking about the future, anything is possible. If you are talking about the 1990s, I think it is extremely unlikely.

What is remarkable about the Soviet political spectrum is that even the party conservatives, even extreme Russian chauvinists, all of them are isolationists, all of them are tired of Russian international engagements, and also they can intercount of course the Soviet resources. I think that there is no taste for imperial aggrandizement anywhere in the Soviet political spectrum today.

THE TERRITORIAL INTEGRITY OF THE U.S.S.R.

Representative SOLARZ. How much pressure do you think there is on Mr. Gorbachev to preserve the territorial integrity of the U.S.S.R.? In other words, is there real pressure on him to keep the Baltics in, or do the people have more or less the feeling if they want to leave, let them go, so long as we make sure we get adequate compensation for our investments and we protect the rights of the Russians who are living there?

Mr. SIMES. If you asked me this question a year ago, I would say that there was a great deal of pressure on him to keep the empire together. And I probably will give you a different answer a year from now than I will give today. Today, I think people are so absorbed with their everyday troubles, with challenges to their very existence, that they don't really care about the territorial integrity of the empire, with some exceptions. I think that nobody among the Russians like the way the Lithuanians acted, but their distaste for the Lithuanians does not mean that they want to keep them contrary to their will. Nobody's particularly interested in keeping the Central Asia inside the empire. Ukraine and Byelorussia is a totally different question.

Representative SOLARZ. Well, if that's the case, how does one explain Mr. Gorbachev's response to the demands for independence on the part of the Baltics?

Mr. SIMES. Well, they're saying of course there are all kinds of right-wing conservative pressures on Mr. Gorbachev. When I was in Moscow in April, I talked to General Boris Gromov, who is from a Soviet command in Afghanistan and now is commander of the Kiev Military District, and he's described as a possible Bonaparte. And he said many nasty things about the Baltics. But he said while we are keeping there a lot of our best troops, it is bad for our military capabilities and it is bad for military morale. We have to make a deal with the Baltics and go.

I think that Mr. Gorbachev is miscalculating. He's an emotional politician, he's human, he has a great distaste for the President of Lithuania. He feels that his people were reckless, insensitive, that they pushed him into a corner, that they treated him like he was a wimp. And if he yields to them, everybody will think that he was a pushover. I appreciate his feelings but it's dangerous for a statesman to act on feelings like that.

Representative SOLARZ. Well, as of the moment, as I understand it, the Lithuanians have suspended the sort of implementing legislation which flowed from that declaration of independence, is that correct?

Mr. SIMES. That is correct. What choice did they have when there was a Soviet army not allowing them to move further? The status quo, essentially.

Representative SOLARZ. But they haven't acted on the underlying proclamation of independence, itself? They haven't moved to suspend it as Secretary Baker suggested they might do.

Mr. SIMES. No, they didn't.

Representative SOLARZ. Do you think that we did the right thing in advising the Lithuanians to suspend their declaration in order to facilitate negotiations with Moscow?

Mr. SIMES. Absolutely not.

Don't get me wrong. I think that the Lithuanians, in my view, could have handled it much better. In my view, the Israelis could have handled many things much better, and many among our other friends. But I think a certain principle is involved. We said for many years that these people were entitled to have their independence. Their government was elected democratically, it is a legitimate government. Mr. Gorbachev accepts that, the Soviet, Supreme Soviet. Who are we to tell them what they should and shouldn't do?

U.S. RESPONSE TO LITHUANIA'S DESIRE FOR INDEPENDENCE

Representative SOLARZ. To what extent, and perhaps Mr. Sorensen and Mr. Warnke would want to contribute to this, but to what extent can one perhaps analogize here the situation that existed in Hungary in the mid-1950's? I mean, we of course, talked about rolling back communism, the right to independence with East European countries, and there are a lot of people who feel that we bore a measure of moral responsibility for encouraging the Hungarians to do what they did, which led to the intervention of the Red Army, and then we stood back and did nothing, basically, because we didn't want to run the risk of precipitating a third world war.

Now, here, too, one might argue that in the event the Red Army decides to really move in and take the kind of actions of which they're capable if it were at Tiananmen Square, for example, it would mean the end to the trade treaty and MFN and all sorts of other things, we're not going to send in the American army.

To what extent do we need to avoid encouraging implicitly the Lithuanians to take actions which may increase the possibility of a confrontation with the Soviet Union that they can't win and in which we may not be willing to come to their assistance?

Mr. SIMES. Once I answered a question like that coming from a very distinguished Congressman, Mr. Solarz. It was about 8 years ago and it was about Afghanistan. And this is always an important question: How far are you willing to encourage people without accepting the moral responsibility for their destiny? My response then was, they did not ask for our permission to fight; the only question would they fight with stones or would they fight with modern weapons? We shouldn't encourage the Lithuanians. We're not encouraging them. But once they make their decision, in my view, we have to support them without undue provocation. And there are many things we could do without creating a confrontation with the Soviet Union, and without misleading them.

Representative SOLARZ. In the case of Afghanistan, I think you were absolutely right. And I fully supported our efforts to assist the Afghan people, and I think it produced very significant benefits, certainly for us and, I think, the world, and eventually, I believe, Afghanistan, as well.

But, Mr. Warnke and Mr. Sorensen, do you have any thoughts about how we ought to go about this Lithuanian question?

Mr. WARNKE. My own feeling, Congressman Solarz, is that Mr. Gorbachev will, in time, recognize that he has to let the Baltics go. And I think it won't be a period of 7 years. but if he makes it too easy, then he does encourage other secessionist movements in such areas, as Mr. Simes has pointed out, that are essential to having a viable country, like the Ukraine, where there's been a separatist movement for years, like Byelorussia. So he can't make it too easy. he can't just let them say, OK, we're independent, and let them go. And I think we shouldn't make it harder for him so that it looks as though he's caving in to American pressure.

So I think that if we were very overt about applying pressure, it would retard the process.

Representative SOLARZ. Do you disagree with that, Mr. Simes?

Mr. SIMES. I do disagree with that. Because, in my view, there are no strong separatist movements now in Ukraine and Byelorussia, and it is precisely the possible failure of economic reform and democratization which may result from Mr. Gorbachev's actions in the Baltics that could create a kind of separatist movement which was—

Representative SOLARZ. But what about Mr. Warnke's main point, that by putting pressure on Mr. Gorbachev, we may make it politically more difficult for him to do what he's otherwise likely to eventually do anyway?

Mr. SIMES. I do not know how does one define pressure. I think that President Bush had an opportunity, and the responsibility to ask a simple question. Was it a democratically elected government?

The only possible conclusion, yes. The second question would be, do we recognize the principle of Lithuanian independence? Yes. So we recognize the Lithuanian Government and tell Mr. Gorbachev, we had no other choice. This is a part of our longstanding policy. And ask yourself, is pressuring these people so important to you that you want to jeopardize your new access of the West which we want you to have.

Mr. SORENSEN. If Puerto Rico asked for its independence, I would say, fine; first, we must have a referendum of the people in Puerto Rico to make sure that that's what they want; we must negotiate the ownership of the assets owned by U.S. citizens and government there; and we must make some arrangement for an economic transition period. And I have no doubt that sooner, rather than later, that independence would be successfully negotiated. But it would certainly be later, rather than sooner, if the Cubans and the Soviets intervened and put pressure on us to grant that independence more quickly.

Representative SOLARZ. This has been really fascinating. It's taken us a bit far afield. Let me just make one concluding observation on this point. And I think you've all made interesting points.

Mr. Simes, you talk in terms of the need for us to respond to this situation in terms of principle, and certainly our principles ought to be given great weight in determining how to respond.

But we also have an obligation, it seems to me, to determine how to respond in ways that are most clearly calculated to advance the principles in which we believe. And therefore I think it is essential to make a pragmatic judgment about whether the prospects for Lithuanian independence, which is a principle in which we believe if that's what the Lithuanians want, are most effectively advanced by a policy of, in effect, confronting Mr. Gorbachev with a policy in which we unequivocally support and recognize the proclamation of independence, or, if we have a more effective opportunity to advance the prospects for the achievement of this principle by the policy of the kind of restraint suggested by Mr. Warnke and Mr. Sorensen.

Mr. SIMES. Congressman Solarz, I always saluted your efforts on behalf of Soviet Jews and other dissidents. And obviously there were quite a few people who were telling you at the time, Mr. Solarz, you are provocative, you're making it more difficult for Mr. Breshnev, it is a sensitive domestic issue. They were wrong, and those who tell you that a position of principle on Lithuania would make it more difficult for Mr. Gorbachev do not listen to what the Lithuanians say; and mind you, they've had more experience with Mr. Gorbachev than we did. They clearly are out of tune with Boris Yeltsin and with Mr. Gorbachev's own advisers. Aleksandr Borgin, the most distinguished Soviet political columnist, is on record saying exactly what I tried to say today. I am not trying to invent a policy toward Mr. Gorbachev. I am repeating what the Soviets and the Lithuanians are saying, themselves.

Representative SOLARZ. Would you agree that the fundamental criteria for determining our policy on Lithuania is how we can most effectively contribute toward the achievement of the objective?

Mr. SIMES. One hundred percent, of course.

Representative SOLARZ. So, in other words, if you came to the conclusion that by taking any particular action which principle might seem to dictate, we would retard the prospects for the implementation of that principle, that it would probably be best not to take it?

Mr. SIMES. Of course.

Representative SOLARZ. Although, in this instance, you believe that a policy of principle is also a policy of pragmatism?

Mr. SIMES. Yes. I have great sympathy for the Lithuanian people, but I would not suggest to go quite that far on their behalf, because I think it would be impractical.

Representative SOLARZ. Right.

Mr. Sorensen, do I take your view on the question of MFN for the Soviet Union and the principal way in which you put it to mean that you more or less agreed with President Bush's decision to renew MFN for China?

Mr. SORENSEN. Yes. I say, I regard MFN as a state of normality. I'm for MFN with everybody practically. That's different from other trade preferences that have been granted from time to time, and trade credits.

Representative SOLARZ. Well, you know, in effect, this really has been the policy of the United States. I mean, we do not, for example, deny MFN to Iraq or to Syria. Unless I'm mistaken, I don't think that we took it away from South Africa on which we imposed a host of other sanctions.

Mr. SORENSEN. That is correct.

CONCLUSION

Representative SOLARZ. In any case, I want to thank all of you very much. I know that I've personally benefited from it. I regret the fact that my colleagues couldn't stay, but you know, they have many other responsibilities.

But you have helped to convince me that the course of action on which I was about to embark really does make some sense. I think there is a question of timing here, given the establishment of these summit negotiations between the President and the congressional leadership. And in fact, perhaps before we close, I might particularly ask Mr. Sorensen and Mr. Warnke, who've kept an ear close to the ground on domestic political issues, what you think about this question.

I mean, I have to say, I'm a little bit reluctant to take the final step and proceed with this in the midst of the summit negotiations. But perhaps it would be worthwhile going ahead. Anyway, what's your feeling about this?

Mr. SORENSEN. If you're asking, not what is ideal but what is practical and effective, I would advise you to wait and see what is the best that can be accomplished by the summit. And if it's not good enough—and it probably won't be—you should proceed.

Representative SOLARZ. Mr. Warnke.

Mr. WARNKE. I would basically agree with that. I assume that there's going to be some limit on the deliberations and therefore you're not talking about waiting for a period of several months.

Representative SOLARZ. I'm not at all sure they're going to reach an agreement on anything. I think these negotiations are fraught with obstacles and I'm not sure either side has the political will to overcome them.

Actually, one of the participants, who will remain unnamed, said to me that he thought that if those engaged in the summit talks were left entirely to themselves and they didn't have to worry about bringing people along with them, that it would not be that difficult to reach an agreement. But when one keeps in mind the fact that they're going to have to go back to the Congress on both sides to stitch together a majority for whatever they agreed to, it's another proposition entirely. And given the fact that partisans on both sides have, you know, staked out what are at the moment utterly irreconcilable positions, it simply may not be possible for them at the present time to get an agreement. Certainly, I hope they do reach one because I think it's important to the future of the country for the reasons you've mentioned here.

But, in conclusion, let me thank you all very much. I particularly appreciate your patience as I went back and forth for the votes, and I think you've made a very useful and important contribution.

The committee is adjourned.

[Whereupon, at 4:50 p.m., the committee adjourned, subject to the call of the Chair.]

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