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THE 2024 JOINT ECONOMIC REPORT

DEMOCRATIC VIEWS

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ON THE

2024 ECONOMIC REPORT
OF THE PRESIDENT

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CHAIRMAN'S VIEWS

I am pleased to share the Joint Economic Committee (JEC) Democratic response to the 2024 Economic Report of the President. The JEC is required by law to submit findings and recommendations in response to the Economic Report of the President (the Report), which is prepared and released each year by the Council of Economic Advisers (CEA). This year's Economic Report was published by the Biden administration in March 2024.

From the outset, the Biden administration has been focused on policies that grow the middle class and bolster our economic resilience. Democrats in Congress have worked with the administration towards these goals, by passing the Inflation Reduction Act, the Bipartisan Infrastructure Law, and the CHIPS and Science Act. Because of these forward-thinking bills, the United States has added new jobs in infrastructure, clean energy, and manufacturing, bringing us closer to building a more equitable economy for all.

Initial data shows these policies are working. The United States has continued a robust economic recovery, despite higher interest rates and global economic headwinds. We have defied recession predictions and experienced stronger than expected economic growth in 2023.

Under President Biden, our economy has added more than 15 million jobs. And as of the time of this publication, we've experienced 40 consecutive months of job growth. Wages are on the rise and growing faster than prices. We're making progress in our ongoing efforts to bring down inflation and to relieve the

financial pressure on American families, workers, and small businesses.

We must now build upon these successes with more forward-looking economic policies that promote a sustainable economy, creating opportunity and good-paying jobs for all Americans. This report focuses primarily on policies that get us closer to these goals while considering the many kinds of changes and challenges our world is experiencing.

For example, we must find ways to transition to cleaner energy sources and mitigate the effects of climate change, while also supporting those communities that have relied on traditional fuel source industries. We must find ways to integrate new technology to help us reach our goals, while safeguarding ourselves against potential threats. And we must continue to protect consumers and workers, while increasing competition and fighting against large corporations that are leveraging increased market power to hike prices on American families.

Our primary focus is supporting working families in every community, for what they need today and what will be needed tomorrow. The Child Tax Credit is one proven example, providing essential relief to American families by reducing food insecurity and helping families afford rent, utility payments, and medical bills. Investments in early childhood education and K-12 school meals and infrastructure are also long-term investments in children's health and academic outcomes, while youth employment programs can help set up young people for success as they transition to adulthood. Increasing access to affordable and stable housing can also help ensure Americans' economic well-being and stability.

Continued public investment is critical to reach these goals. To sustain this investment without increasing our debt, we should look to a common-sense tax reform plan that asks the wealthiest Americans and the biggest corporations to pay their fair share. The Bush and Trump administration's tax cuts significantly contributed to our debt levels while favoring the wealthiest taxpayers. By closing loopholes that predominately benefit the very richest Americans and implementing several progressive tax measures, we could narrow deficits and reduce government borrowing.

It has been an honor and a pleasure to serve as Chairman of the Joint Economic Committee this Congress. Our committee has worked in a true bipartisan fashion to examine our current economic policy and lead discussions on how to create a better future for the next generations. A successful economy is one where our children are safe, healthy, and educated; where workers can retire with peace of mind; and where entrepreneurs are empowered to start new businesses in their communities. I am optimistic about our ability to continue that work and deliver for American families.

MARTIN T. HEINRICH
CHAIRMAN

CHAPTER 1: THE ECONOMY CONTINUED TO EXPAND AT A STEADY PACE, CREATING MILLIONS OF JOBS DESPITE PRICE AND INTEREST RATE CHALLENGES

The United States continued its robust economic recovery despite higher interest rates, sustained inflationary pressures, and global economic headwinds

Defying recession expectations, the U.S. economy demonstrated its resilience by posting robust growth in GDP, along with significant job creation, and progress in wage growth

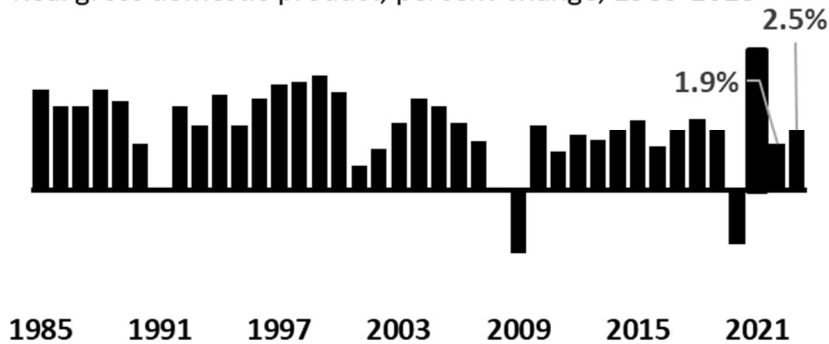
The U.S. economy in 2023 was characterized by stronger than expected growth, defying earlier predictions of a recession.¹ Economic growth for the year was powered by robust consumer spending, a revitalization in manufacturing investment with levels not seen since the 1950s, and increased government purchases at both state and federal levels.² And while the economy continued facing inflationary pressures, global disruptions caused by war, instability in financial markets, higher interest rates, and the rising threat of climate change, it continued generating jobs at an unprecedented rate, maintaining the unemployment rate at or below 4% for 30 consecutive months.^{3,4}

Despite predictions of a guaranteed recession exacerbated by conflicts abroad, disrupted energy markets, higher gasoline prices, and global realignments of supply chains with China, economic growth accelerated from the 1.9% posted in 2022.^{5,6,7} The economy grew 2.5% in 2023, a third consecutive year of positive growth that brings total growth over the last 3 years to more than 10%, exceeding the levels forecasted by the CBO prior to the pandemic.^{8,9} Looking internationally, the United States' economy recovered faster than other G7 economies, reaching its pre-

pandemic level in the first quarter of 2021.¹⁰ By the third quarter of 2023, the United States had surpassed the average G7 annualized quarterly growth rate by over five percentage points.¹¹

GDP Increased by Over 10% in the Past Three Years

Real gross domestic product, percent change, 1985-2023



Source: Bureau of Economic Analysis.

While business investment deteriorated slightly during 2023, investment in structures posted a solid increase of 13.2%, a level not seen in 17 years.¹² This uptick combined with rising consumption—especially of durable goods and services—and government spending annual GDP.¹³ Nonresidential fixed investment increased, fueled by rises in structures and intellectual property products, though residential investment fell due to the strain of higher interest rates.^{14,15} State and local government spending grew, supported by higher gross investment in structures and increased compensation for state and local government employees; federal government spending rose, with increases in both nondefense and defense spending; lastly, exports increased for both goods and services, which helped net exports remain positive throughout the year.^{16,17} Overall, quarterly growth was strong and positive throughout the year, confirming the overall strong path for GDP in the United States.^{18,19}

These readings suggest that President Biden has continued the trend of stronger economic growth under Democratic presidents compared to Republicans. In just three years, President Biden more than doubled the economic growth seen under the prior administration, posting a geometric average growth rate of 3.4% versus the 1.4% geometric average growth rate seen under the previous administration and the 2.6% rate seen historically under Republican presidents.^{20,21}

The United States has added over 15 million jobs under President Biden, and the unemployment rate has remained at or below 4% for the last 30 months

The United States Has Added Over 15 Million Jobs Since President Biden Took Office

Yearly net change in nonfarm payrolls, 1996-2023, in millions



Source: Bureau of Labor Statistics.

After over three years in office, President Biden has overseen an unprecedented 15.6 million new jobs, the fastest job growth in history.²² This averages out to over 390,000 jobs per month. At this point in the Trump administration, the administration lost over 10 million jobs.²³

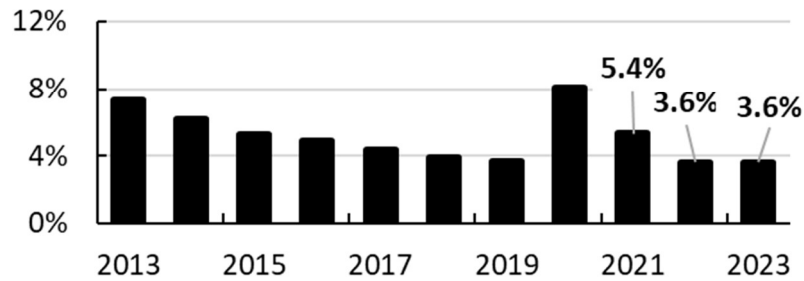
It is a testament to the resilience of the American economy that there are currently over 3 million more jobs than the Congressional Budget Office (CBO) projected there would be in the first quarter of 2024 in their January 2020 forecast.^{24,25} Businesses continue to add jobs and provide opportunities for workers despite headwinds from global economic instability and the Federal Reserve's monetary tightening cycle.

The Biden administration and Congress have been foundational in the economic recovery that has benefitted American workers. The labor market has displayed remarkable resilience, with almost all sectors, notably leisure and hospitality, and retail trade, rebounding to their pre-pandemic employment levels by March of 2024.^{26,27} Although in absolute terms, most of the jobs were created in the Private Education and Health Services, Government, and Leisure and Hospitality sectors, annual employment growth in percentage terms was high in a broader range of sectors that includes Mining and Logging, Construction, Utilities, and Other Services.^{28,29}

The unemployment rate averaged 3.6% in 2023 and has remained near record lows to start 2024.³⁰ Despite a slight uptick in the first quarter of 2024, the unemployment rate has remained at or below 4% since December 2021, the longest streak in over 50 years.^{31,32} The labor force participation rate registered 62.5% in May 2024, nearing its highest level since before the pandemic. More specifically, the labor force participation rate for workers ages 25 to 54 reached 83.6% last month, surpassing pre-pandemic levels.^{33,34} As of April 2024, 37 states plus the District of Columbia had unemployment rates lower than before March 2020 and only 2 states and the District of Columbia registered unemployment rates higher than 5%.³⁵

Unemployment Has Been At or Below 4% for 30 Consecutive Months

Annual unemployment rate, 2013-2023



Source: Bureau of Labor Statistics.

Note: Civilian unemployment rate, ages 16+, seasonally adjusted.

Despite the highly publicized job cuts at major technology companies and some troubled financial institutions on Wall Street, 2023 ended with only a slight increase in new unemployment claims.^{36,37,38} While the number of continuing claims has recently increased, the level is in line with pre-pandemic trends.³⁹

Continued strength of the labor market promotes equity and resiliency, but more is needed to close long-standing gaps

Despite ongoing issues like discrimination and unequal norms, the strong recovery has encouraged more Americans to enter the job market.⁴⁰ Unfortunately, while the overall unemployment rate is low, there are still long-running gaps in labor market outcomes across race, sex, and ethnicity groups.⁴¹ For instance, while the overall unemployment rate averaged 3.6% in 2023, it was higher for Black and Hispanic workers, at 5.5% and 4.6% respectively, compared to lower rates for white and Asian workers, at 3.3% and 3.0% respectively, also at annual rates.⁴² Other groups, such as Black men (20 years or older) and young Americans (16 to 24 years old), also face disproportionately higher rates of unemployment compared to the national average.⁴³ Additionally,

the unemployment rate for American Indian and Alaska Native workers averaged 6.6% during 2023 (not seasonally adjusted), though direct comparisons are limited due to differences in how the time series are constructed.⁴⁴ These persistent gaps motivate a continued focus on keeping the labor market strong while prioritizing equal opportunities in economic policymaking.

Women and Black Americans have faced and overcome obstacles to employment that were especially significant during the pandemic.⁴⁵ May 2024 saw the United States set a record high for women's employment and labor force participation among workers ages 25 to 54.⁴⁶ This record shows the resilience of women in the workforce despite the ongoing challenges of increased caregiving responsibilities and job losses during the pandemic. Similarly, Black Americans have reached significant milestones, with labor force participation rates matching those of white Americans in recent months and achieving the narrowest employment gap ever recorded.⁴⁷ This progress aligns with historically low Black unemployment rates and a steady decline in wage gaps with white and Hispanic workers.⁴⁸

The Biden administration is revitalizing U.S. construction and manufacturing jobs

The United States has added over 1.6 million new construction and manufacturing jobs under President Biden, reversing a decades-long decline.⁴⁹ Public investments are driving a strong economic recovery and ensuring that workers across the country have access to high-paying, high-quality jobs. The Inflation Reduction Act, the Infrastructure Investment and Jobs Act, and the CHIPS and Science Act are expected to create jobs in infrastructure, clean energy, and manufacturing. Investment in new manufacturing facilities reached a record high of \$223 billion annually as of February, even after adjusting for inflation. This surge in private

investment is a direct result of bipartisan efforts in the semiconductor industry and Democratic initiatives to expand clean energy sectors. These government initiatives, along with the infrastructure investments, have significantly boosted nonresidential investment, supporting this crucial component of the U.S. economy despite high interest rates.⁵⁰ Private manufacturing construction investment hit its highest level on record since 1958 in 2023, with manufacturing construction contributing the most to annual real GDP growth than it ever has before.⁵¹

These investments have quickly translated into job growth in these sectors. Between President Biden taking office in January 2021 and April 2024, the United States has added 865,000 construction jobs and 777,000 manufacturing jobs.⁵² The gains in jobs have continued year after year. During 2023 alone, the construction and manufacturing sectors added over 260,000 jobs, including 236,000 in construction and 26,000 in manufacturing. To put this in perspective, in 2019, the United States added only 131,000 construction jobs and 2,000 manufacturing jobs.⁵³ President Biden's administration has successfully reversed decades-long declines in U.S. manufacturing employment for three consecutive years.⁵⁴ Manufacturing, a cornerstone of the American economy, has faced mounting challenges due to intensifying global competition, jeopardizing numerous high-quality jobs. Over the past two decades, the United States witnessed a substantial erosion in its manufacturing sector, shedding over a quarter of all domestic manufacturing jobs, equating to roughly 5 million positions.⁵⁵ The surge in competition from China, in particular, was responsible for an estimated 985,000 American manufacturing job losses between 1999 and 2011 alone.⁵⁶ Compared to retail or other service industries, manufacturing roles often offer superior pay, more stable hours, and enhanced worker protections.⁵⁷ The decline in

these well-compensated manufacturing positions significantly contributed to a 20% reduction in median income for working-class men without a high school diploma between 1990 to 2013.⁵⁸ The investments made by President Biden and Democrats in Congress are beginning to undo this long-running trend; this topic is explored further in Chapter 2 of this response.

Progress on inflation continued throughout 2023, though it still presents challenges for the Federal Reserve

Throughout 2023, the Federal Reserve took a cautious approach to combating inflation, raising rates at only four of its eight meetings.⁵⁹ By August 2023, the Federal Reserve had increased the federal funds rate by an additional 100 basis points, adding to the previous year's hikes of 425 basis points, totaling an increase in the Federal Funds Target Range of 525 basis points in less than two years.⁶⁰ However, by the end of 2023, the Federal Reserve had adopted a more dovish tone as inflation readings continued to fall.⁶¹ At this point, no further rate hikes are expected and there is a possibility that the Federal Reserve will begin to cut rates during the second half of 2024.⁶²

Although inflation remains a concern for many families, it has decreased significantly since 2022.⁶³ April's Consumer Price Index (CPI) data showed a 3.4% increase over the past year, notably lower than the peak of 9.1% in June 2022.^{64,65} Data from the last six months of 2023 indicates that the Federal Reserve's preferred inflation gauge—core Personal Consumption Expenditures (PCE), which excludes volatile food and energy prices—continued approaching its 2% target.⁶⁶ This suggests that the United States is making progress in combating inflation. Though readings at the start of 2024 signaled that progress on inflation will be uneven, the underlying trend still points towards continued disinflation.⁶⁷ For example, the trimmed mean CPI and

median CPI values reported by the Federal Reserve Bank of Cleveland continued a downward trend to start the year, signaling that underlying price growth continues to slow.⁶⁸

Inflation has been on a downward trend for the past 18 months, driven in part by decreases in food, energy, and goods inflation.⁶⁹ Inflationary pressures are expected to continue normalizing as falling shelter costs for new leases begin to be reflected in the inflation data. Elevated shelter inflation has helped keep services inflation high in recent years but is expected to fall in the latter half of 2024.⁷⁰ This should help make up for recent increases in service costs like motor vehicle insurance that are largely lagged effects of the pandemic-era increase in car prices.⁷¹

Wage growth continued to be strong, especially for the lowest earners

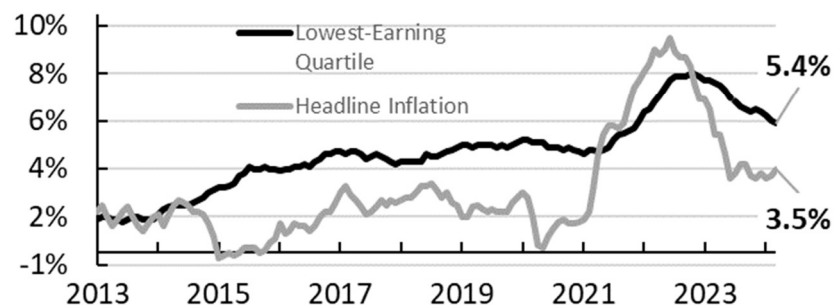
The labor market remained robust throughout 2023, enabling workers to secure improved jobs and higher pay. Furthermore, with the easing of inflationary pressures, workers have experienced real wage gains, as wages and salaries have outpaced prices since the start of 2021.⁷² Calculations by the JEC Democratic staff show that national average wages and salaries grew by nearly \$17,000 between January 2021 and April 2024, outpacing price growth during that period by nearly \$3,800.⁷³

The demand for labor continues to be strong. At the end of the year, there were 8.8 million job openings, which had been trending down throughout the year but still implied about 1.4 job openings per unemployed person, down from the peak of 2 jobs per unemployed person in March 2022.⁷⁴ The ongoing availability of jobs is helping to reintegrate marginalized workers into the workforce, while also increasing their bargaining power to negotiate for higher wages. This trend is underscored by the

historic union activity and victories seen in 2023 and aligns with President Biden's strong support for organized labor.⁷⁵

Wage Growth Has Been Above the Pace of Inflation for the Lowest Earners

Median wage growth for the lowest quartile, 12-month moving average, and headline CPI inflation, 2013 to 2024



Source: Bureau of Labor Statistics and Atlanta Fed Wage Tracker
Note: Wage growth data are nominal. CPI is seasonally adjusted.

At the end of 2023, the three-month moving average wage growth for median hourly earnings were up 5.2% over the last year.⁷⁶ From 2022 to 2023, wages for the lowest wage earners increased at an even higher pace of 7.2%, a sign that the strong economic growth of the U.S. economy continues to reach workers previously excluded from wage gains.⁷⁷

These trends of higher wages for the lowest earners may continue during 2024.⁷⁸ With job openings still at near record highs, and renewed optimism towards strong union membership, the demand for labor will continue to be strong and will allow workers to find new jobs more easily and negotiate higher wages. While the differential is dissipating, workers who switched jobs in 2023 and onto 2024 saw their median wage rise more than those who remained in their current jobs.⁷⁹

While the United States faces fiscal challenges, common-sense tax reform that asks the wealthy to pay their fair share can narrow deficits and reduce government borrowing

Changing demographics will continue to strain the long-term fiscal outlook of the United States

The anticipated rise in deficits and debt over the next few years is primarily attributed to escalating spending on Social Security, major healthcare programs like Medicare, and interest payments, surpassing revenues strained by successive rounds of tax reductions under Republican administrations. This fiscal challenge is further compounded by an aging population and escalating healthcare costs per capita. According to projections by the Congressional Budget Office (CBO), the federal debt held by the public, currently at 99% of GDP in 2024, is expected to climb to 116% by 2034 and to a staggering 172% by 2054.⁸⁰

CBO warns that the projected high levels of debt could slow economic growth and present significant fiscal challenges.⁸¹ However, these escalating debt levels are not solely driven by increasing costs but also by reduced revenues. Over the forecast period, expenditures are expected to average 23.1% of GDP, remaining relatively stable through 2028, while revenues are anticipated to decrease slightly from 17.5% of GDP in 2024 before experiencing a slight uptick to 17.9% following the expiration of certain provisions of the Trump tax cuts.⁸² The projected deficit over the next decade is slightly lower than previously estimated by CBO, primarily due to the impacts of the Fiscal Responsibility Act and the Further Continuing Appropriations and Other Extensions Act.⁸³ Additionally, the deficit is smaller than previous estimates because of stronger than expected economic performance, with a projected increase of 5.2 million people in the labor force by 2033, largely driven by immigration. This is expected to lead to a \$7

trillion expansion in GDP and a \$1 trillion increase in revenue by 2034.⁸⁴

Emergency spending measures such as the Coronavirus Aid, Relief, and Economic Security (CARES) Act and the American Rescue Plan (ARP) Act, implemented in response to the COVID-19 pandemic, had minimal impact on the long-term debt trajectory. Despite temporarily elevating the debt level, these measures did not accelerate the debt's long-term growth rate.⁸⁵

Unsustainable levels of debt may hinder economic progress

The Bush and Trump administrations' tax cuts significantly contributed to the increase in debt levels. Before the extension of the Bush tax cuts in 2012, the Congressional Budget Office (CBO) projected that revenues would surpass outlays indefinitely.⁸⁶ President Trump also negatively altered this trend in 2017 with the Tax Cuts and Jobs Act, which primarily favored the wealthiest taxpayers.⁸⁷ By the start of President Biden's term in 2021, public debt had already exceeded 97% of GDP.

Both the Bush and Trump tax cuts were implemented without corresponding adjustments to revenues or spending, resulting in substantial increases in deficits by reducing long-term revenues. An analysis suggests that these tax cuts account entirely for the fiscal gap, representing the total increase in debt beyond what is required to maintain a stable debt-to-GDP ratio.⁸⁸ According to the Office of Management and Budget, revenues stood at 20.0% of GDP in 2000, but by 2019, they had dropped significantly to just 16.4% of GDP.

The increasing deficits resulting from declining revenues have obscured a significant trend: federal spending as a percentage of GDP has actually decreased over recent decades and is anticipated

to continue shrinking.⁸⁹ Recent projections indicate that federal spending over the next fifty years will be 1% to 2% lower as a share of GDP compared to early 2010s estimates, primarily due to reductions in healthcare spending.⁹⁰ Many of these savings stem directly from provisions within the Affordable Care Act.⁹¹

Further tax cuts benefiting the wealthy would exacerbate the deficit without providing the necessary investments for economic growth and family well-being. To genuinely address the budget deficit, a logical starting point would involve reversing the substantial tax cuts for the wealthy and large corporations implemented in the 2017 Republican tax law. Extending these tax cuts would significantly increase the national debt, with a majority of the benefits accruing to households earning more than \$289,900 annually.⁹²

Increasing revenue and taxation fairness

Implementing several progressive tax measures, such as closing loopholes that predominantly benefit the wealthy and ensuring adequate funding for the Internal Revenue Service (IRS), could generate substantial revenue and enhance the nation's fiscal trajectory. These proposals include establishing a 25% minimum tax and reinstating the top income tax rate of 39.6% for the wealthiest Americans.⁹³ Such measures would compel affluent individuals, who frequently exploit loopholes and pay lower tax rates, to contribute their fair share.⁹⁴

These proposals also aim to ensure that corporations contribute their fair tax share by increasing the corporate tax rate and aligning the country with the global minimum tax agreement. Simply raising the corporate tax rate to 28% could generate \$1.3 trillion in additional revenue over the span of a decade.⁹⁵ Moreover,

adopting the 15% global minimum tax would redirect more tax revenue to the United States rather than to foreign governments.⁹⁶

The U.S. tax code contains numerous tax expenditures that are expensive, totaling \$1.8 trillion in 2023 and reducing federal tax revenue, thereby contributing to a higher deficit.⁹⁷ Targeting these tax expenditures, which disproportionately benefit the wealthy, such as lower tax rates for capital gains and stock dividends, the stepped-up basis loophole, and the carried interest loophole, would increase revenue and decrease the deficit. Ensuring that capital gains are taxed at the same rate as wage income for individuals earning over \$1 million would eliminate the disparity in tax rates between different types of income. Taxing unrealized capital gains at the time of death would prevent gains passed to heirs from escaping taxation. Closing the carried interest loophole would stop private equity, real estate, and hedge fund managers from categorizing some of their income as investment income, allowing them to pay a lower tax rate or defer tax payments indefinitely.

Lastly, keeping the Internal Revenue Service (IRS) well-funded would bolster revenue collection and play a vital role in narrowing the tax gap, which represents the shortfall between taxes owed and revenues collected, estimated at \$688 billion for tax year 2021.⁹⁸ The Treasury Department's recent estimate, utilizing a more comprehensive approach, suggests that the original funding provided by the Inflation Reduction Act (IRA) for the IRS could increase revenue by up to \$561 billion over a decade. Leveraging IRA funding, the IRS has intensified tax enforcement efforts targeting wealthy individuals and large corporations, resulting in \$520 million in collections from millionaires alone.⁹⁹ Despite a \$21.4 billion reduction in funding as part of the Fiscal Responsibility Act, the IRS has managed to make significant strides in modernizing the agency and enhancing tax enforcement.

However, further cuts to funding would hamper revenue generation thus exacerbating the deficit.

Overall, the Biden administration and Congressional Democrats have steered the U.S. economy on a path towards steady economic growth, solid labor markets, and strong real wage gains during the rapid economic recovery. Though challenges remain from global economic disruptions and the Federal Reserve's continued high interest rates, the economy has showed significant resilience. The remaining chapters of the Response explore the current economic situation and challenges in more depth.

CHAPTER 2: BOOSTING U.S. OUTPUT AND INNOVATION

Historic federal investments fueled the pandemic recovery and are helping to build a stronger and more resilient U.S. economy, amidst a fast-changing global economic landscape. Past investments in artificial intelligence (AI) have helped establish U.S. leadership in the sector, but the United States will need an “all hands on deck” approach in order to maintain it. The United States is also at the start of a manufacturing renaissance as investments made by the Inflation Reduction Act, CHIPS and Science Act, and Bipartisan Infrastructure Law drive record high levels of manufacturing construction. This expansion will help create jobs while securing supply chains that are critical to national security and economic growth. Efforts to diversify trade flows are also strengthening trade relationships with our North American partners. However, further investments in modernizing land ports of entry are needed to fully realize the benefits of growing trade with Canada and Mexico. Finally, evidence suggests that pandemic supports may have driven the increased productivity growth seen in recent quarters. If sustained, this could boost U.S. competitiveness and support higher wages for American workers.

Maintaining American leadership in AI innovation

The rapid rise of artificial intelligence (AI) tools has the potential to alter nearly all aspects of society with large but uncertain impacts on the economy and labor market.¹⁰⁰ Generative AI has progressed quickly in the last few years, in particular with the release of ChatGPT, prompting governments to grapple with ways to encourage AI development within the bounds of ethical and national security concerns. AI tools will likely disrupt a wide range of industries, from the music industry and copywriting to manufacturing and human resources. Many questions remain

around AI, including inaccurate decision-making and algorithmic bias (e.g., facial recognition doing a worse job of identifying black female faces); lack of interpretability; information provenance (e.g., privacy concerns, deep fakes, and misinformation); and supply chain issues. AI may also increase inequality as AI tools consolidate the wealth and dominance of particular companies and individuals.

The Bipartisan Senate AI Working Group released their Roadmap for AI Policy on May 15, 2024, which lays out a number of policy priorities for the United States to maintain leadership in AI development and use.¹⁰¹ The Working Group was brought together by the shared understanding that AI could profoundly impact the world and that the United States needs to prepare for both the opportunities and risks that AI brings.

To maintain American leadership in AI and ensure a just integration of technology, the federal government, including the national labs, should work with technologists, economists, and other stakeholders to establish a safe and ethical structure for AI development and education. While there are a range of plausible scenarios of how this new technology transforms the economy and our workforce, substantial American leadership and public investment are needed to secure our competitiveness and national security while also securing the safety and livelihood of U.S. citizens.

AI could fundamentally alter the U.S. labor market and may affect the demand for different jobs

AI technologies may lead to fundamental changes in the U.S. labor market through their potential to reduce labor costs and increase productivity in ways that could increase global GDP by 7% each year.¹⁰² In doing so, these technologies would both expand

economic opportunities in some sectors and reduce employment and activity in others. For example, one issue in the Hollywood strike in 2023 was the future of generative AI in entertainment and its potential to disrupt writers' and actors' livelihoods.¹⁰³

Jobs across pay, skill, and experience spectrums could be affected by AI given that references to AI skills are increasingly common in job postings across virtually every sector. However, the precise impacts on each sector remain uncertain given the novelty of these technologies. Researchers also diverge on the speed of AI advancement and its impact on the economy, but it could outperform humans on many tasks in the next several decades.^{104,105}

AI may lead to job polarization where jobs become more concentrated in high- and low-paying occupations because routine tasks that are most susceptible to AI are predominantly in jobs that pay in the middle of the income ladder.¹⁰⁶ However, other recent research suggests that tools like ChatGPT can boost productivity with certain writing tasks and narrow the productivity gap between more and less experienced customer service workers, indicating that AI may provide skills to grow the middle class.^{107,108} MIT economist David Autor, an expert in the impact of automation and globalization on American workers, theorizes that well-regulated AI could boost middle-class earnings by democratizing the sort of expertise and decision-making skills that currently demand higher wages.¹⁰⁹ Some more complex occupations are also exposed to AI tasks that involve detecting patterns, making judgments, and optimizing processes, such as clinical lab technicians, chemical engineers, optometrists, and power plant operators.¹¹⁰ Together this suggests that technological advances in AI will impact the labor market in complicated and uncertain ways.

AI job opportunities are not equally available, and AI threatens jobs held by women more

The history of technological change, from the advent of the dishwasher to the introduction of the internet, shows that technological developments do not destroy overall employment. Instead, they can render some roles obsolete while providing others with opportunities as technology transforms jobs and pay structures.¹¹¹ For example, during the early days of commercial flying, pilots who flew at night could command higher salaries because it was riskier. However, improvements in cockpit displays, air traffic control systems, and aircraft engines reduced the risk and meant many more pilots could fly at night.¹¹² This led to a gradual elimination of the skills-based wage premium for nighttime flying. As more people become AI literate, the technology may become more democratized with less of a polarization in wages of those who do and do not understand the technology. Broadly, less educated workers and those in small- and medium-size firms may be most at risk for automation, but could also be well-positioned for wage gains if given access to more learning and retraining.¹¹³

Long-running disparities in the STEM training and education pipeline also mean that job opportunities in fast-growing AI occupations are not equally available. Less than 19% of all AI and computer science PhD graduates in North America over the last decade were women.¹¹⁴ Furthermore, only 2.4% and 3.2% of U.S.-resident AI PhD graduates in 2019 were African American and Hispanic, respectively. In 2020, the advocacy group Queer in AI showed that almost half of its survey respondents view the lack of inclusion in the field as a barrier, and more than 40% of members surveyed reported experiencing discrimination or harassment at school or work.¹¹⁵ These disparities underscore the need for efforts

to ensure that historically underrepresented groups in STEM are not left behind during this AI revolution.

AI tools can both overcome and, in some cases, magnify biases

The use of AI tools can amplify preexisting biases against certain groups; however, in some cases, they can also be deployed to mitigate them. There have also been reports that AI algorithms in hiring processes are biased against women.¹¹⁶ This is because of the years of bias and discrimination present in the data that is perpetuated by the model. Many AI facial recognition systems demonstrate racial disparities, with early work illustrating this for black women.^{117,118} Paralleling these concerns, AI tools also have the potential to address certain systematic biases. For example, they can mitigate the corporate gender gaps, particularly in leadership roles, that broadly mirror the STEM gap by removing bias in recruiting, reviews, and promotion decisions and improving retention of female employees.¹¹⁹ One study found that a machine learning algorithm could help judges make bail decisions, lowering both crime and jail rates, but many other studies have shown that AI may perpetuate racial bias in bail decisions.^{120,121}

AI tools can be misused to harm consumers and the American public

Another risk with AI is that malicious actors may use AI tools to defraud the public before adequate protections can be put in place.¹²² It is imperative that the U.S. works to ward off threats to democracy posed by data and election manipulation, including campaign deepfakes. The U.S. government should and indeed already has begun to address the important privacy concerns surrounding the use of Americans' personal data and AI. A recent uptick in financial scams using AI voice cloning technology to trick consumers prompted several U.S. Senators to send a letter to

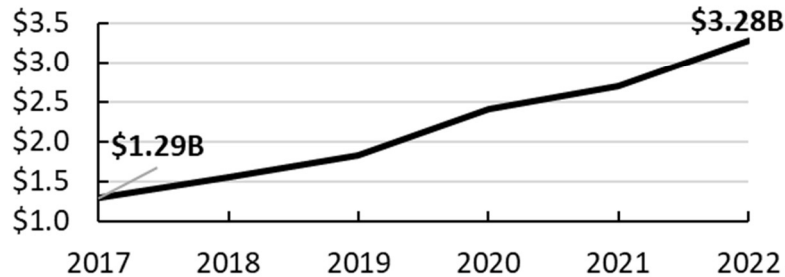
the Consumer Financial Protection Bureau urging action, and the Bureau has increased its focus on how AI technologies affect the financial marketplace.^{123,124} Recent proposed bipartisan legislation also aims to protect Americans' data from unfriendly foreign nations.¹²⁵ The bill would build upon federal government priorities to protect American health care records, geolocations, web browsing activity, and other information that malicious actors could use to harm American people and interests.

Public investment in American AI research and development infrastructure can improve the technology's safety and development

To bolster the United States' role in the development of AI tools, the administration is making large investments in AI research and development (R&D). Because of the 2020 National AI Initiative Act championed by JEC Chairman Heinrich and then Senator Rob Portman, in May 2023 the National Science Foundation (NSF) announced \$140 million in funding for seven new National Artificial Intelligence Research Institutes as part of a cohesive cross-government approach to address AI related opportunities and risks.¹²⁶ The new AI Institutes will advance foundational AI research on ethical and trustworthy technologies and on innovations in cybersecurity, climate change, understanding the human brain, and enhancing education and public health—all while supporting the development of a diverse AI workforce. Public investments have continued to increase over the last several years to \$3.2 billion in 2022, underscoring the continued growth in public sector involvement in AI.

Since 2017, the Amount of U.S. Government AI-Related Spending Has More Than Doubled

U.S. government AI-related contract spending, in billions, 2017-2022



Source: AI Index Report 2023, Stanford Human-Centered Artificial Intelligence.

The U.S. Department of Energy (DOE) has the capabilities and experience to provide leadership in developing responsible AI R&D frameworks and quantifying the risks from AI. DOE has proposed a new initiative to lead the nation and the world on trustworthy AI development: FASST, or Frontiers in Artificial Intelligence for Science, Security, and Technology for the Nation. In consultation with the White House Office of Science and Technology Policy (OSTP), NSF has created a complementary roadmap for a National AI Research Resource (NAIRR) to enable the academic community to better utilize and expand AI within their own research.¹²⁷ The recently introduced bipartisan CREATE AI Act of 2023 co-led by JEC Chairman Heinrich would authorize the NAIRR and help make this vital resource a reality.¹²⁸ In addition to the academically-focused NAIRR, the federal government should explore ways to enable small and medium size firms to access, use, and interpret AI tools to prevent substantial consolidation among just a few technology firms.

The U.S. government should dramatically increase investments in AI education, reskilling, and training to prepare our workforce and shore up national security

While the U.S. government has already made substantial investments in AI R&D and has outlined future goals, far less has been done to ensure that our workforce is ready to continue to support these efforts. For decades, the United States has been a magnet for AI talent—for example, the estimated hiring rate for AI workers in the United States in 2020 was roughly double that in 2016.¹²⁹ China’s growth rate over the same period was only 30%. However, other research points out that the United States is ahead in technology development but falling behind in people (STEM graduates and technology skill penetration), without which AI implementation will not be nearly as effective.¹³⁰ The United States is particularly behind in the number of STEM graduates overall and in those that stay in the United States after graduating. For example, the limited number of skilled worker visas (H1B) makes it challenging both for highly educated workers to stay in the United States and for companies to focus operations here—with Canada and other countries capitalizing on this disincentive.¹³¹

Educating, training, and reskilling to meet the new challenges of an AI-informed and augmented labor market will also become increasingly important to avoid job loss, especially for women and historically disadvantaged groups.¹³² Educating the future workforce to prepare people early on will be important—in particular, increased gender and racial equity efforts in STEM fields could help prevent certain groups from being left behind. Research conducted by the World Economic Forum and BCG showed that 95% of at-risk U.S. workers can be retrained for jobs that pay at or above what they make now and offer growth potential.¹³³ Reskilling would be costly, but companies could

profitably reskill 25% of their workforce—and 77% of workers could be retrained through government programs or incentives with a net cost benefit.¹³⁴ To complement these technological workforce goals, economists should be included in educational initiatives to encourage broader understanding of possible economy-wide paradigm shifts with AI advancement. Congress could aid these efforts by adopting tax policies that encourage companies to save costs by helping workers integrate technology into their jobs instead of replacing workers with technology.¹³⁵

Several policies options exist to propel our AI workforce forward to match our dominance on the technological side of the equation. The United States could leverage lessons learned from the space race during the Cold War. After the Soviet Union (USSR) launched the first crewed space flight, the United States government realized it needed to make substantial public investments in scientific education to close the gap with the USSR and promote national security. The National Science Foundation invested the equivalent of over \$5 billion in teacher and classroom development, and Congress passed the National Defense Education Act to provide the equivalent of more than \$10 billion for science education.¹³⁶ Similarly, China’s emergence as a leader in AI should encourage the same “all hands on deck” national scale effort to maintain American leadership in AI through dramatically reinigorated STEM education and workforce training efforts. Given the size of its economy, the United States could lead a multinational consortium on AI competitiveness.

Educating the U.S. population broadly on the future of AI in addition to growing the AI-specific workforce is essential for broader AI usage, understanding, and public support. While public awareness of AI surged with the advent of tools like ChatGPT, many misunderstandings still exist, and a public education

campaign could provide a more balanced view.^{137,138} This educational campaign could lay the groundwork for a sense of urgency to support efforts to maintain American leadership in AI, much like what was done during the space race. Raising the profile of STEM work and education will help the United States maintain technical dominance in AI and provide well-paying jobs. Finally, closely evaluating possible international partners will enable the United States to build on others' advances, quickly partner with allies for mutual benefit, and maintain our leadership in this space.

Federal investments have led to a boom in new manufacturing facilities

As of April 2024, annual investment in new manufacturing facilities hit over \$227 billion dollars, a record high even after adjusting for inflation. This spike in private investment is the direct result of bipartisan investments in infrastructure and semiconductor production and Democrats' bold action to invest in American-made clean energy and manufacturing. This made-in-America manufacturing boom is already supporting jobs and communities across the country.

Democrats passed supportive policies that have directly led to record levels of manufacturing investment, even after adjusting for inflation

The Inflation Reduction Act (IRA), Bipartisan Infrastructure Law (BIL), and CHIPS and Science Act (CHIPS Act) are driving investment in domestic manufacturing of things like semiconductors, electric vehicle (EV) batteries, and wind turbines. This boost in support has led to a boom in manufacturing construction investment. As of April 2024, there was over \$228 billion in inflation-adjusted annual U.S. manufacturing construction investment, more than twice the investment in February 2020 or January 2021.

Real Total Manufacturing Construction Spending Surged After CHIPS and IRA

Monthly construction spending, billions of April 2024 U.S. dollars, 2005-2024



Source: Federal Reserve Economic Data Total Manufacturing Construction Spending and Federal Reserve Economic Data Price Index of Materials and Components for Construction.

Note: Data are seasonally adjusted and at an annualized rate.

The U.S. Department of the Treasury reported on the initial increase in real total manufacturing construction as of April 2023, and spending has continued to rise in the months that followed.¹³⁹ Though the previous president often bragged about reshoring American manufacturing, annual investment actually fell during his time in office.¹⁴⁰

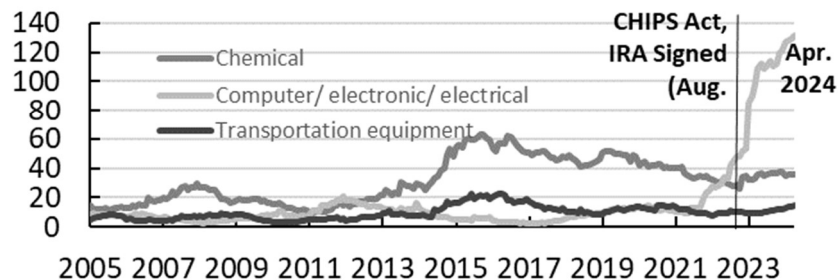
The CHIPS Act and the Inflation Reduction Act's targeted investments in science and technology continue to drive manufacturing investment in the electronics and battery industries

With the promise of CHIPS Act support, the multinational corporation and technology company Intel plans to invest over \$100 billion in semiconductor manufacturing, research, and development by expanding their facilities and creating new jobs in places like Oregon, Arizona, New Mexico, and Ohio.¹⁴¹ Other chipmakers have announced major CHIPS Act investments across the country.^{142,143} The IRA also included a significant investment in U.S. battery production to support demand for EVs and other clean power applications.¹⁴⁴ These investments in computer, electronic, and electrical components have driven nearly the entire

increase in manufacturing construction spending, clearly showing how supportive policies backed by Democrats have driven the U.S. manufacturing boom.

Computer, Electronic, and Electrical Construction Drives Overall Spending Increase

Monthly spending in billions of April 2024 U.S. dollars, 2005-2024



Source: U.S. Census Sector Construction Spending using Federal Reserve Economic Data Price Index of Construction Materials
Note: Data are seasonally adjusted and at an annualized rate.

The CHIPS Act also authorized \$800 million for vital infrastructure upgrades to Sandia and Los Alamos National Laboratories in New Mexico that can boost scientific and technological innovation.¹⁴⁵

The Biden administration ensures that manufacturing investment legislation benefits low-income communities and workers to create good jobs for more Americans

Due to legislative incentives aimed at helping low-income communities, economically distressed counties have received a higher share of investments in clean energy, semiconductors, electronics, and other industries.¹⁴⁶ For instance, the CHIPS Act requires companies applying for funds of \$150 million or more to plan for affordable, high-quality child care for their workers and gives preference to companies that provide workforce training and education investments.¹⁴⁷ The IRA also supports workers by

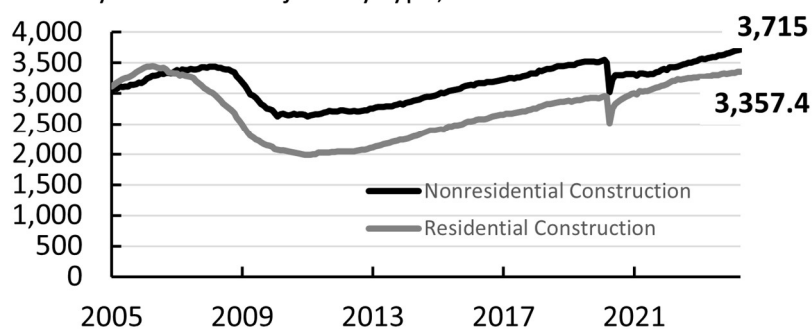
providing increased clean energy tax credits for projects that pay prevailing wages, use registered apprentices and are located in communities that currently or recently relied on fossil fuels to support their local economies.¹⁴⁸

These investments also support continued strength in construction employment, which is rising steadily after years of slow growth following the Great Recession

Construction employment has grown steadily since President Biden came into office, especially in the nonresidential sector, which covers people who build factories and other commercial structures.

Construction Employment Has Risen Steadily Under Biden

Monthly construction jobs by type, thousands



Source: Federal Reserve Economic Data Construction Employees.

Note: Data are seasonally adjusted.

This broad job growth points to both the strong overall labor market and the boost in employment tied to booming manufacturing construction investment.

The manufacturing investment boom is expected to continue as the Biden administration continues to provide support of funding through the CHIPS Act and IRA

While the economy has already added nearly 800,000 manufacturing jobs during President Biden's tenure, this number is expected to increase as these new facilities open up and start production. As part of the CHIPS Act, the Biden administration recently announced an estimated \$5 billion investment to support research and development in advanced computer chips, including funding for the National Semiconductor Technology Center.¹⁴⁹ The Biden administration's third CHIPS Act award of \$1.5 billion will help the company GlobalFoundries build a computer chip fabrication facility in New York and expand and upgrade two of its other facilities.¹⁵⁰

As more CHIPS Act funding is awarded, along with ongoing IRA and BIL funding, manufacturing investment will continue to grow, creating more jobs people can raise a family on while boosting economic growth.

Strengthening North American supply chains and trade provides economic benefits

Global events over the last few years, including the COVID-19 pandemic, have underscored the need for resilient supply chains. "Nearshoring"—bringing more production either back to the United States or to its nearby neighbors Canada and Mexico—is one solution for addressing supply-chain vulnerabilities as proximity and integrated markets make these kinds of disruptions less likely. The United States' North American neighbors have a large role to play in improving supply-chain reliability, increasing trade and economic output, and advancing climate objectives.

Investments in U.S. land ports of entry (LPOE) can improve how efficiently commercial cargo crosses into the United States, providing economic and climate benefits to border states and the country more broadly. Recent legislation including the BIL, CHIPS Act, and IRA provide opportunities for further North American integration on trade, supply chains, and the climate.

The United States has a strong trade relationship with its North American partners

With strong cultural and economic ties between the three countries, the United States, Mexico, and Canada are each other's strongest trading partners. The U.S.-Mexico border region has become an important production site as manufacturers in both countries work together to produce goods, engaging in production sharing.¹⁵¹ Many intermediate inputs are produced in the United States and exported to Mexico, and the finished products, such as cars and auto parts, computers and electronics, and household appliances, are then imported back into the United States.¹⁵² The United States is the top supplier of intermediate goods to Mexico, the U.S.-Canada energy markets are highly integrated, and all three countries have a deeply integrated market for automotive manufacturing.^{153,154}

Mexico surpassed China to become the top U.S. trading partner in early 2023.¹⁵⁵ It was the first time in 20 years that the United States bought more goods from Mexico than China.¹⁵⁶ Following Mexico, Canada was the second highest trading partner. Combined, Canada and Mexico account for over 30% of the United States' total trade.¹⁵⁷

Nearshoring improves supply-chain reliability post-COVID-19 pandemic

Building on the already strong partnership between the United States, Mexico, and Canada, nearshoring can improve supply-chain proximity and reliability. The pandemic exposed the fragility of global trade by causing massive disruptions to global shipping and supply chains, including for critical inputs like semiconductors.^{158,159,160} Other events around the globe such as Russia's invasion of Ukraine, Houthi rebel attacks on cargo ships in the Red Sea, and drought in the Panama Canal have caused recent shipping delays.^{161,162,163} Conflicts, climate change, and natural disasters could cause further shocks to the global shipping market in the future.

Nearshoring production to Canada and Mexico will provide some protection against future disruptions to shipping and global commerce. The partnership between the three countries is rooted in decades of economic cooperation and is governed by a free trade agreement. The preferential tariffs included in the United States-Mexico-Canada Agreement (USMCA) can make nearshoring an attractive option for many companies.¹⁶⁴

Key legislation passed by Congress and President Biden provides opportunities to integrate North American supply chains and advance climate objectives

Prior to the pandemic, most countries including the United States prioritized efficiency and low costs over resilience and domestic capacity in supply chains. Congress and the Biden administration took action to address the country's supply-chain vulnerabilities by passing the BIL, the CHIPS Act, and the IRA. These bills have spurred domestic manufacturing; provided opportunities for climate progress and further North American integration; and

incentivized investment in industries including semiconductors, electric vehicles (EVs), and batteries.

The United States and Canada are reliable partners for energy security and climate objectives based on an already strong market for energy trade and a shared commitment to environmental standards.¹⁶⁵ As our largest energy trading partner, Canada can play a key role in growing the clean-energy economy in North America. The United States and Canada are working to achieve net-zero power grids by 2035.¹⁶⁶ The United States is also leveraging funding from the BIL to accelerate the clean-energy transition.¹⁶⁷

Additionally, Canada and Mexico can help companies comply with the IRA, which includes North American requirements for EV and battery manufacturing to qualify for its EV tax credit. Specifically, the tax credit requires a certain percentage of critical minerals to be sourced from the United States or its free trade agreement partners.¹⁶⁸ This includes Canada, which is a top source of critical mineral inputs that are imported to the United States and used in EV batteries, as well as Mexico. Investments in both countries can help companies meet IRA requirements and improve supply-chain security in North America for this key input.

The United States is using funding from the IRA and the CHIPS Act to further integrate North American supply chains. The United States and Canada launched a “cross-border semiconductor packaging corridor” that provides incentives for public- and private-sector cooperation and expands semiconductor packaging and testing capabilities.¹⁶⁹ The United States and Mexico formed a Supply Chain Working Group to expand cooperation on semiconductor and information and communications technology (ICT) supply chains.¹⁷⁰

The United States provided \$250 million in funding from the Defense Production Act for U.S. and Canadian companies to mine and process critical minerals for EV batteries, and another \$50 million for U.S. and Canadian companies to strengthen advanced semiconductor packaging in North America.¹⁷¹ The United States and Canada are also working to promote training and opportunities in clean energy and skilled trades, and collaborating with stakeholders to grow the talent pool for critical supply chains.¹⁷²

Investing in LPOEs will enable more efficient crossings for commercial trade, boosting the U.S., Canadian, and Mexican economies.

Land ports of entry (LPOEs) along the northern and southwest borders are critical for facilitating trade with Mexico and Canada and strengthening the North American supply chain. The United States has 110 LPOEs that consist of 167 separate land border crossings.¹⁷³ Of these 167 land crossings, 120 are along the northern border and 47 are along the southern border. Some of these land border crossings were built more than 70 years ago, and the average age of all buildings and structures at these crossings is 39 years.¹⁷⁴ At the same time, the volume of freight has increased significantly. In just the last 20 years, trade volume with Mexico has grown 200%, while trade volume with Canada has grown 73%.¹⁷⁵ Freight moves between the three countries through a mix of transportation modes including truck, rail, pipeline, air, and vessel, but land transportation plays the largest role. In 2023, 71% of U.S. freight with Mexico and 57% with Canada was by truck.¹⁷⁶ Together, this creates a particular bottleneck at many LPOEs between the United States and Mexico because a much larger amount of trade is going through comparatively fewer crossings.

Investments are needed at LPOEs along both the northern and southern borders to meet today's volume of personal and commercial crossings. Infrastructure improvements and expanded capacity at LPOEs will reduce crossing times and expedite the flow of goods into the United States, generating significant economic benefits. Research by the Atlantic Council and others shows that a 10-minute reduction in wait times at LPOEs along the U.S.-Mexico border could lead to an additional \$26 million in commercial cargo entering the United States each month, translating into more than \$312 million in commerce from Mexico into the United States each year.¹⁷⁷ With this 10-minute reduction in wait time, an additional 532 commercial vehicles (including 388 loaded containers) would enter the United States each month.¹⁷⁸ The reduction would also have positive effects on employment, consumer spending, and output.

The BIL included \$3.4 billion for modernizing 26 LPOEs along the northern (20) and southwest borders (6), as well as 21 paving projects.^{179,180} These upgrades are needed as the average age of facilities at these LPOEs is 40 years.^{181,182} These BIL investments are expected to create 6,000 jobs over 8 years and generate an additional \$4.5 billion in economic output.^{183,184} As most of this investment is directed towards the northern border, more is needed for the southern border. In 2023, 6 of the top 10 LPOEs for truck container crossings were along the southwest border.¹⁸⁵ Nearly three-quarters of freight with Mexico is transported by truck.¹⁸⁶ There are also fewer land border crossings along the southern border (47 out of 167), meaning that each crossing is extremely important. Expanded capacity at these crossings, including the Santa Teresa LPOE in New Mexico, will allow for more efficient crossings, increasing the number of trucks that can cross and providing economic benefits to the United States.

In addition to expanding the physical capacity of LPOEs, staffing capacity must increase to meet the increased volume of trade. A 2017 report from the JEC Democratic staff examined the economic impact of understaffing at ports and called for additional staffing.¹⁸⁷ CBP previously estimated that staffing an additional one to three booths or lanes can reduce maximum wait times by up to 25 minutes at some of the busiest ports and that an additional 1,000 CBP officers at ports would increase economic activity by \$2 billion and add 33,148 new U.S. jobs per year.

Port modernization creates economic and climate gains that benefit border communities

Trade along the northern and southern border supports jobs in manufacturing, transportation, and other sectors, as well as investments in manufacturing plants, warehouses, and other storage facilities near ports. Ports often become industrial and distribution hubs as businesses are incentivized to locate operations nearby, which can provide enormous economic opportunities for the surrounding communities. Land port of entry investments included in the BIL and the IRA are expected to support 11,500 jobs annually across the country.¹⁸⁸

Modernization projects at LPOEs will also improve climate resilience and sustainability, benefitting the surrounding communities. Investments from the BIL and the IRA will improve the climate outcomes at certain ports of entry, including by reducing operational emissions to the equivalent of removing 500,000 gasoline-powered passenger vehicles from the road for one year, constructing all-electric buildings, achieving net-zero emissions at certain ports, and lowering carbon emissions.¹⁸⁹ Expanded capacity at LPOEs, including by adding commercial lanes, will allow trucks to move through crossings more

efficiently, reducing idling times and pollution to nearby border communities.

Government investment supports productivity growth

The United States has experienced high productivity growth in recent quarters

The United States is currently experiencing a period of high productivity growth that can help boost wages and reduce inflation. Productivity—often defined as the total amount of economic output divided by the total number of hours worked—is often used to measure economic progress and the impacts of technological innovation. Sustained productivity growth can help reduce prices because it means that the economy can produce a larger amount of goods and services without an increase in input costs.¹⁹⁰ Producers can therefore close supply shortages and workers can earn higher wages that reflect the rising level of output per worker.¹⁹¹ The 2.9% growth in productivity between Q1 2023 and Q1 2024 stands in stark contrast to both the low-productivity environment which took hold in the recovery from the Global Financial Crisis and the current low productivity growth seen in other major economies.¹⁹²

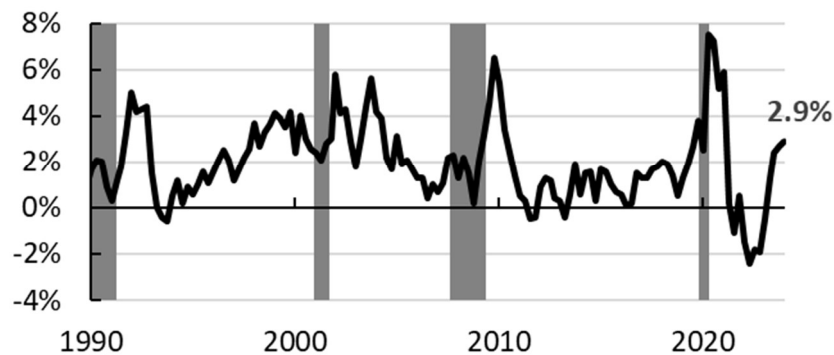
While some commentators have linked this rise in productivity to the adoption of generative AI, this is probably not the case as productivity gains from any one new technology or innovation are likely to occur more slowly as the technology diffuses and companies find ways to adopt it to help perform specific tasks.¹⁹³ Rather, this is more likely the result of fiscal policies on the part of the Biden administration and Congressional Democrats during and after the pandemic, coupled with a successful, rapid labor market recovery from the pandemic.

Past high productivity growth came during periods of low unemployment

Interpreting trends in productivity growth is complicated, in part because the standard measure of productivity—output per hour worked—tends to spike during recessions as low-paid workers are disproportionately laid off and their hours worked are removed from the measure of productivity.¹⁹⁴ However, when increases in productivity occur during economic expansions, this reflects technological advances and more efficient workers.¹⁹⁵ For example, the 2-4% productivity increases in the latter half of the 1990s reflects that decade’s large public and private investment in new computer technology, combined with a sustained period of both low unemployment and low inflation.¹⁹⁶

Productivity Is Above Pre-Pandemic Trends

Labor productivity, 12-month change, 1990-2024



Source: Bureau of Labor Statistics.

Note: Shaded bars are recessions.

The rise in productivity growth post-pandemic as well the strong job growth seen during the pandemic recovery also mark a significant improvement compared to the slow recovery from the effects of the Global Financial Crisis.^{197,198} The 2010s featured a slow return to full employment, not helped by a relative lack of

public investment and fiscal supports.¹⁹⁹ During this period, year-over-year productivity growth averaged around only 1%, significantly lower than during prior periods of economic expansion like those of the 1990s, 1980s, and 1960s. These trends might not be unrelated, with one analysis finding a positive correlation between the prime age employment rate and productivity growth when recession-era periods of high measured productivity are removed.²⁰⁰

Federal support to households and businesses during the pandemic likely helped drive recent productivity growth

Unlike the recent inflationary period, which was a worldwide phenomenon, recent productivity growth has been largely limited to the United States alone among developed economies.²⁰¹ One possible explanation for the divergence in productivity between the United States and other advanced economies is the actions taken by Congress and the Biden administration to stabilize the economy during and after the pandemic. While other developed nations focused primarily on wage supports that allowed businesses to keep their existing labor forces through the pandemic, the United States, in addition to offering paycheck protection, expanded the unemployment insurance system.²⁰²

In addition to providing crucial assistance, this may have also given workers time to find jobs in more productive firms.^{203,204} Research shows that strong labor markets can help workers move from positions where they are less productive to positions where they are more productive, especially when employers might otherwise use their market power to suppress wages.²⁰⁵

These fiscal supports may have also allowed people to take the time to start their own businesses, helping to explain why U.S. business formation spiked during the pandemic and remained 30%

above pre-pandemic levels during 2022 and 2023.^{206,207} This increase is also good news for productivity growth, since evidence suggests that the share of start-up companies able to grow rapidly plays an important role in supporting overall productivity growth.^{208,209}

Sustained public and private investment, as well as continued low unemployment, will help to keep wage and productivity growth high

While continued productivity growth will help in the fight against inflation, history suggests that the United States will need to keep unemployment low while maintaining public and private investment to sustain these productivity gains. Public investments like those made by the CHIPS and Science Act, Bipartisan Infrastructure Law, and the Inflation Reduction Act are already helping to create additional good-paying jobs in strategic industries and support the overall labor market.

These investments will help to keep unemployment low and also ensure the availability of technologies critical to future productivity growth. Congress and the Biden administration can continue to build on these investments by further investing in research and development (R&D), as evidence shows historic government R&D spending yields significant returns.²¹⁰

New technologies like AI promise further productivity gains, and Congress should help ensure workers benefit from these gains

Just as new computer technology drove the productivity gains of the 1990s, a suite of emerging technologies has the potential to deliver significant productivity gains. Some estimates give generative AI alone the potential to add 1.5% to productivity growth every year over the next decade.²¹¹

Congress should work to ensure future productivity gains are distributed fairly. The labor share of income for American workers has steadily declined in recent decades, and wages have not kept up with productivity gains made since the 1970s.²¹² Some economists argue that the ease with which some workers' jobs can be automated has increased over this same period, which underscores the need for Congress to work to protect workers' share of income.²¹³

Congress can take several measures to make sure that workers earn their fair share of productivity gains. Critically, automation should be used whenever possible to supplement and enhance the productivity of human workers, not simply replace them to reduce labor costs for businesses or shift them onto consumers. Options to promote this could include changing the tax code to shrink the gap between marginal tax rates on labor and on the equipment and machines used for automation, as well as empowering workers to have more of a say in how AI is used in their own workplaces.²¹⁴ This could include securing AI-related protections in union contracts—as was achieved by the Writers Guild of America following recent their most recent strike—or ensuring worker representation on corporate boards.^{215,216}

CHAPTER 3: CLIMATE RISKS AND OPPORTUNITIES IN THE ENERGY TRANSITION

Climate change presents physical risks to people and property and transition risks and opportunities as the world moves away from fossil fuels. The 2024 Economic Report of the President (ERP) discusses these topics with a focus on understanding the path toward the clean energy transition and how it can be achieved. This chapter in the response builds on the work of the ERP to go into more depth on the benefits of the clean energy transition alongside some underappreciated potential tools to help advance the United States' climate goals. In this chapter, we focus on many of the benefits or avoided costs of decarbonizing, including the costs and risks of climate-fueled extreme heat, wildfires, and flooding; climate risks to the financial sector, particularly insurance; the benefits of grid investments; the importance of clean energy job training; and the necessity of international climate finance.

Costs and risks posed by extreme heat, wildfires, and flooding

Record-breaking high temperatures make headlines across the globe in each recent summer, drawing attention to one of the most salient and alarming effects of climate change. Climate-exacerbated wildfires also represent a growing threat to the health and well-being of communities across the country.²¹⁷ The United States has already seen a devastating string of catastrophic wildfires in the past year in places like Maui, the western United States, and Louisiana as these disasters become more and more damaging due to climate change.^{218,219,220,221,222,223} Whether from an overflowing river, rising coastal waters, or a flash flood, flooding causes extensive harm to American households, infrastructure, and businesses across the country.²²⁴ In the last year alone, devastating floods have hit Vermont, California, and

Kentucky as climate change increases the threat of these disasters in both inland and coastal communities.^{225,226,227,228} This string of deadly and costly climate disaster years makes the threat of heat, wildfires, and floods and the massive costs of climate inaction increasingly clear.

The immense cost of these disasters—both the human toll and the economic damages—requires government action. At the federal level, investments from the Inflation Reduction Act to combat climate change will cut down on the greenhouse gases that are a root cause of larger wildfires, more flooding, and higher temperatures. Other specific policy actions and investments can also improve climate resilience and ensure that our communities and systems are better adapted and prepared for the effects of climate change.

The total annual economic burden of wildfires and flooding in the United States is challenging to measure but large

An analysis by the JEC Democratic staff finds that the total cost of wildfires in the United States is between \$407 billion to \$923 billion each year in 2023 dollars, which is notably larger than past estimates.^{229,230} This range was calculated by combining estimates from existing research on the specific costs related to property damage, direct and indirect deaths and injuries, health impacts from wildfire smoke, income loss, watershed pollution, and a range of other factors. Each of these impacts on their own are very costly, but together, they represent disastrous consequences for the country.

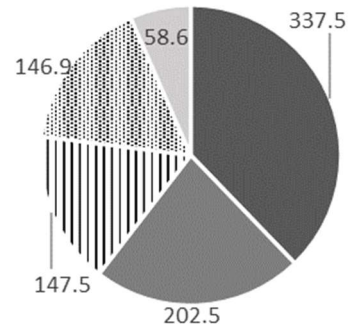
Climate-Exacerbated Wildfires Cost Nearly \$900 Billion a Year

Annual total costs and losses in 2022 billions of dollars

- Diminished Real Estate Value
- Exposure to Wildfire Smoke
- ▨ Income Loss From Wildfires
- ▨ Watershed Costs
- Other Costs

Note: Other Costs include insurance payouts, timber loss, property damage, electricity costs, evacuation costs, fire suppression, direct death and injuries, insurance premium increases, learning loss, tourism loss, psychological costs, and prison and legal costs.

Source: Analysis by JEC Democratic staff.



The JEC Democratic staff also finds that flooding in the United States causes between \$179.8 and \$496.0 billion dollars in damages annually in 2023 dollars—notably higher than past estimates.²³¹ This range was calculated based on a survey of the existing research on the effects of flooding in the United States and inflation-adjusted to 2023 dollars. Each underlying study often focused on specific costs like the need for new investments in flood-resistant infrastructure, damage to existing structures, lost economic output, or damage to homes (to name just a few of the costs included in this analysis). Together, the estimated total costs of wildfires and flooding in the United States make up 2-5% of 2023 GDP. The large range on the cost estimates for wildfires and flooding reflects the difficulty in measuring the total cost of climate-exacerbated natural disasters, but even the lower-end estimates represent significant costs to the U.S. economy.

Heat waves present a growing threat to public health, workers, and critical infrastructure

Extreme heat is already the leading cause of weather-related deaths in the United States.²³² Between 2004 and 2018, over 10,000 Americans died of heat-related causes.²³³ The true number of heat-related deaths is likely significantly higher, as heat often plays a role in deaths that are officially attributed to other causes.²³⁴

Extreme heat is already having a significant impact on the U.S. economy, particularly in heat-exposed industries like agriculture, mining, construction, manufacturing, and transportation. Crop workers die of heat-related illnesses at 20 times the rate of other civilian workers in the United States.²³⁵ Between 1992 and 2016, 285 construction workers died from heat exposure—accounting for more than 30% of heat-related occupational deaths during that period.²³⁶ Heat is also significantly impacting the working conditions of mail and shipping delivery workers. Together, the loss of productivity caused by heat is emerging as one of the biggest economic costs of climate change.²³⁷

High temperatures place additional stress on the water, energy, and transportation infrastructure that forms the bedrock of the U.S. economy and society. Much of the existing critical infrastructure was not designed to operate in extreme heat and may require significant adaptations or replacement to avoid costly and dangerous disruptions to essential services.

The significant cost of wildfires, flooding, and extreme heat motivate a range of policy actions

Given the mounting costs of these climate impacts, investments and policy to address both mitigation and adaptation needs are timely and cost-effective. For example, investments from the

Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL) for greenhouse gas reductions are helping to address the root cause of these costs.

Improving the aging U.S. energy grid, especially through modernized transmission lines, can reduce the risk of wildfires ignited by electricity infrastructure.²³⁸ The newly announced American Climate Corps will also put more than 20,000 young people on career pathways in fast-growing sectors tied to clean energy and climate resilience, including work on forest management that can prevent catastrophic wildfires.^{239,240} These and other preventive measures, such as more prescribed burning, can ultimately make wildfires less damaging; though they will take time to have an effect. Ensuring that pay for the wildland firefighters who help protect communities from wildfire damage is high enough to recruit and retain those fighting these wildfires will also help curb costs.

Recent legislation like the IRA, BIL, and Water Resources Development Act of 2022 have made substantial investments to combat climate change and make communities more resilient to climate impacts like more damaging flooding.²⁴¹ That said, there are a range of cost-effective investments the United States should make to safeguard key public assets and infrastructure like the energy grid, healthcare facilities, wastewater treatment plants, postal services, and transportation (including airports) from the effects of flooding.²⁴²

A recent report found that every dollar invested in flood protection saves up to \$318 in damages, and adaptation measures can prevent job losses and increase employment growth.²⁴³ Improving flood insurance and disaster relief also helps Americans and the economy.

Local, state, and federal governments are focusing on several efforts to address the impacts of extreme heat, including keeping workers safe on the job with heat-related labor standards, mitigating heat island effects, ensuring homeowners and renters have access to affordable cooling, and preparing for future heat-related public health emergencies.

Climate risks to the financial sector and insurance markets

Climate change threatens not only the health of the planet but also Americans' financial well-being. Climate disasters can quickly undermine the value of people's homes, while the broader effects of the climate crisis can disrupt the health of the broader financial sector. One clear example is in the home insurance market, where climate-exacerbated risks from hurricanes and wildfires are making parts of America hard to insure.

Climate change threatens broader financial stability too, both through direct risks to the real estate market, but also through portfolio risks that could impact pensions and mutual funds. Adequately characterizing and valuing these climate risks with better data and analysis can inform decision making and regulations to mitigate climate financial risk. Policymakers should ensure that financial markets integrate climate risks into their decision making and turn away from anti-capitalist efforts to prevent the financial sector from accounting for environmental risk factors.

Climate risks are making parts of America hard to insure and pushing premiums higher

A potential climate bubble in real estate is looming because real estate prices in some regions in the United States are overvalued given the unaccounted-for financial risks of climate impacts, such

as climate-exacerbated wildfires, hurricanes, and sea level rise.²⁴⁴ This risk is most visible in the market for home insurance, where climate-fueled extreme events, such as fires in California and Colorado and hurricanes in Florida and Texas, are wreaking havoc on these markets.^{245,246,247,248} Roughly two out of three American homes are underinsured, meaning that millions of homeowners would face massive financial losses after a natural disaster.²⁴⁹ As uninsured damages rise, communities will instead use the Federal Emergency Management Agency (FEMA) disaster relief and other public funds to protect families' finances and overall well-being.

Wildfires have led to enormous insured damages in recent years, and their risk is also difficult to quantify and price into insurance policies.²⁵⁰ This risk is hard to predict because fires can start for several reasons and because their risk to peoples' homes at any given time is based on a complicated combination of topography, drought conditions, wind patterns, fuel amounts, and the location of houses among many other factors.²⁵¹ This has led insurers to either raise premium costs substantially or pull out of markets entirely—with several major insurance companies declining to provide coverage in California in the summer of 2023.²⁵² Californians also saw a 10% increase in premiums at renewal in 2023.²⁵³

More intense hurricanes have also caused widespread damage in Florida and along the east coast with billion-dollar weather and climate disasters in the United States increasing over the last 40 years.²⁵⁴ Hurricanes and floods caused \$120 billion in insured losses globally in 2022.²⁵⁵ This has led to large disruptions in the insurance markets on the east coast of the United States, especially in Florida's flawed property reinsurance market. Reinsurance companies sell insurance policies *for* insurance companies, which

insurers need if they must pay out very large claims that would otherwise drive them out of business.²⁵⁶ This type of coverage is both essential and expensive in Florida because the state sees so many catastrophic weather events. The cost of reinsurance in Florida has risen 54% from 2019, with much of the cost passed along to families through higher home insurance premiums while the amount of coverage insurers purchased only rose 15%.

Flood risks have led to more than half the insurers in Florida ending up on a financial health watch list.²⁵⁷ Reinsurance companies are raising their premiums, which on average increased 40 to 70% during the 2023 hurricane season—a cost that is largely passed on from insurers to homeowners buying coverage.²⁵⁸ This has led some insurers to leave areas altogether and for insurance premiums for Americans to increase. For example, premiums in Florida are costing on average \$6,000 annually for home insurance policies, four times more than other states. In response to the state’s continuing insurance issues, the Senate Budget Committee announced an investigation into Florida’s state-backed insurer of last resort given ongoing concerns about its solvency.²⁵⁹

Financial risk from flooding and other storm damage is by no means isolated in just one state.²⁶⁰ Texas saw home insurance premiums jump 22% last year due to a series of billion-dollar disasters.²⁶¹ Unpriced flood risk in the U.S. housing market is generally concentrated in counties along the coasts that do not have flood risk disclosure laws, meaning that insurers cannot accurately account for local flood risks.²⁶² A recent study found that residential properties with flood risk are overvalued by \$121–237 billion dollars.²⁶³ Suppressed insurance rates, which do not fully account for climate risks, have contributed substantially to this overvaluation.²⁶⁴

As more areas become uninsurable, families will face rising financial burdens

Uninsurable areas have real world impacts on Americans' personal and financial well-being. For instance, the impact of losing all one's belongings to a climate-fueled extreme event (e.g., wildfires, floods, etc.) without insurance can be severe. Over fifty percent of losses in the United States were not insured in recent years, leading to large costs and damages that fall on individuals.²⁶⁵ Households with insurance are 85% less likely to report high financial burdens three weeks after a disaster and 82% less likely to report these burdens one year after disaster.²⁶⁶ Nearly a quarter of American consumers have no emergency savings to cover expenses if their property is uninsurable or that insurance payouts take time to be processed.²⁶⁷ Black and Hispanic households are also less likely to have these savings, and what savings they do have are lower than other groups.²⁶⁸

Local governments also face substantial financial risks

Climate impacts, such as more destructive wildfires and hurricanes, lead to new and often unexpected expenditures for municipal governments.²⁶⁹ Erosion from heavy rain, which the National Climate Assessment showed grew in the Northeast by 70% between 1958 and 2010, can lead to increased road and bridge maintenance and repairs.^{270,271} This damage can cause major transit disruptions, like what occurred after the 2023 deadly floods in New York.²⁷² Heatwaves, and the wildfires that sometimes accompany them, can force local governments to open cooling centers or other emergency shelters. These disasters can increase energy expenditures for local governments, decrease labor force participation and income and damage the broader economy while harming public health and increasing mortality.²⁷³

This heat stress can also lead to communities paying more to borrow on the municipal bond market.²⁷⁴ Heat-related damages equal to 1% of GDP annually are associated with 15 basis points (0.15 percentage point) higher borrowing costs compared to municipalities not exposed to these damages. This can make it harder for local governments to invest in their communities and provide basic services. A 2022 study showed that California wildfires between 1990 and 2015 had a substantial negative effect on municipal budgets and caused a long-term increase in local government spending.²⁷⁵ Local governments may also suffer substantial decreases in revenue from property taxes when homeowners move away from climate disaster-prone areas, or if better data on climate risks leads to falling local property values.²⁷⁶

Climate risks to the broader financial sector are large, but opportunities also exist

As climate change reshapes the economy and the world transitions away from fossil fuels, many companies and investment funds will be stuck with so-called “stranded assets” like coal-fired power plants or oil rigs that have lost their financial value. Utility companies forced to bear the losses incurred by holding these assets would likely raise electricity prices for families to cover their losses. One recent study found that the total lost profits from stranded assets could total more than \$1.4 trillion globally.²⁷⁷ Most of those lost profits are concentrated in the financial sector, with a net present value of over \$438 billion in potential losses due to stranded assets.

Individual investors are particularly at risk, as the same study estimated that 86% of potentially stranded assets in the United States are ultimately owned by these investors.²⁷⁸ The threat to pension funds is a threat not just to the financial system, but to the retirement savings of all Americans. This climate bubble would

also hit the banking and financial sectors. For example, wildfire risk could lead to as much as \$337 billion in lost real estate value with downstream impacts on property tax revenue and school funding.²⁷⁹

The incorporation of environmental, social, and governance (ESG) goals into investing strategies can help to mitigate the risks to investors from climate change. Simultaneously, ESG goals meet the demands of investors seeking a more environmentally friendly way to invest while also giving them a way to financially benefit from the transition away from fossil fuels. At the beginning of 2022, more than \$8.4 trillion were invested in sustainable assets, around 13% of all assets being managed professionally.²⁸⁰ Companies themselves are now working to quantify climate risks like any other threat to their business, with one 2018 report finding that 215 of the world's largest companies estimate a collective nearly \$1 trillion in climate risks to their operations.²⁸¹ Recent efforts to stifle ESG investing from conservatives, in addition to ignoring potential investor preferences for sustainable investments, can be viewed as anti-capitalist because they force companies to ignore climate risks when firms alone should decide how to allocate capital among their investments.²⁸²

Better data, analysis, and insurance options can help mitigate climate financial risk

Alongside reducing greenhouse gas emissions and investing in clean energy and climate adaptation, massive risk estimation and reduction are needed to reduce the potential human and financial consequences from extreme events and other climate impacts.

Data and analysis to target these interventions are essential, and better models of how climate affects different parts of the economy are sorely needed to inform this decision-making.

Current economic approaches used to model financial shocks struggle to factor in a range of climate risks, or how these risks can compound when multiple climate effects occur at the same time. For example, when Hurricane Katrina hit, the city had modeled that the pumps used to drain the city and protect the power grid would hold, but they did not consider that the personnel necessary to manage the pumps would need to evacuate. Another paradigm disruption is that some insurers project that after four degrees of warming, private property underground like basements will be uninsurable due to climate-exacerbated flooding.

This and other potential major economy-wide changes need to be accounted for in models of a climate-changed economy—it is no longer business as usual. Two federal agencies (the National Oceanic and Atmospheric Administration and the National Science Foundation) are working together to address this by creating a research center to bring climate science to the insurance industry. While future climate projections—which are now being used more in financial decision making—better characterize future risks than historical data, they were not originally created as inputs for such fine scale uses around financial decision making. New models created by the private sector to model climate risk represent important steps forward, but it is important that these tools are subject to oversight, data validation, and user training to prevent adverse impacts and errors. To help establish more science-informed decisions throughout the financial sector, companies and governments should invest in more workforce development and communication training at the interface of climate, data science, and economics.

Innovations in insurance and risk-sharing can better guard against financial risks. There are also several innovative tools to help address these issues using new forms of insurance and risk

sharing. Parametric insurance represents a useful opportunity to cushion the financial blows posed by climate disasters. These insurance products guarantee a set payout when a specific event occurs instead of paying out actual expenses, which greatly increases the speed of claim payments and allows people to repair and get back to their lives quickly. They can also be multiyear or seasonal policies.

Other recent innovations include community-based catastrophe insurance, climate adaptation as a service, intermediaries for climate investment, and public climate risk pooling to distribute risk. Community-based catastrophe insurance is a way for a community institution to help members access and afford insurance. Climate adaptation as a service allows for longer-term financing of adaptation projects where investors are paid back over time with interest. Intermediaries can help match asset owners who can or want to invest in climate efforts with climate adaptation needs.

Congress and federal agencies can also play a role by updating their protocols that can allow for better collaboration and foster innovation. Congress can direct FEMA to collaborate with insurance industry experts to support the creation of a private all-hazards insurance program that would cover all natural hazards, be available for purchase directly from insurers, and meet the federal mandatory purchase requirements for flood insurance and disaster recovery programs.

While climate change presents large risks to Americans' finances and the broader economy, opportunities exist to invest in ways that benefit people and the environment. Innovations in insurance, risk sharing, and AI are also providing exciting ways to safeguard U.S. assets into the future.

The importance of grid investments

The electrical grid in the United States is a complex network that provides energy to millions of homes and businesses, putting it at the center of the nation's economy.²⁸³ Nearly all aspects of commerce and industry depend on affordable and available sources of energy. Currently, the United States is shifting to clean electricity and moving away from fossil fuels to mitigate climate change and reduce the impacts of price volatility. To achieve these goals, the United States will have to create more electricity than it currently produces and streamline how it connects those new electricity sources to homes and businesses.

The electrical grid faces climate and security risks alongside greater demand for electricity

The aging U.S. electrical grid is vulnerable to outages and damage from the severity or frequency of extreme weather events exacerbated by climate change. Over 70% of the grid is more than 25 years old and will need replacing in the coming decades.^{284,285} Currently, the leading cause of electric power outage events is extreme weather events and climate-related threats, including coastal flooding, heat waves, ice storms, droughts, wildfires, and winds from severe storms.²⁸⁶ In addition to climate risks, cyberattacks from state and non-state actors threaten the energy grid, including through the exploitation of vulnerabilities from the increased use of smart technology for grid management.

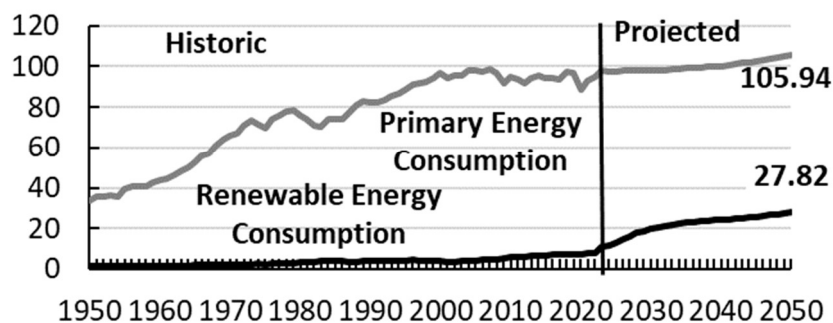
Estimates also project that U.S. electricity consumption will grow roughly 1% per year over the next three decades.^{287,288} Electricity demand is expected to rise given the growth of industries with high electricity use—such as data centers (including for artificial intelligence), manufacturing, and chemical and hydrogen production—and because of the electrification of consumer electronic devices and home appliances.

Renewables are making vital contributions to the resilience of the grid

The International Energy Agency recently projected that record clean energy growth from nuclear, wind, solar, and hydropower will offset this rising power demand.^{289,290,291} In the United States, projected increases in renewable energy consumption between now and 2050 should more than account for projected energy consumption increases, per Energy Information Administration (EIA) data shown below. Nuclear energy also provides essential baseload power—generation that can run around the clock—which is especially important when extreme weather events threaten the grid.^{292,293}

U.S. Total and Renewable Energy Growth

1949-2022 historic, 2023-2050 projected, quadrillion BTUs



Source: U.S. EIA Annual Energy Outlook 2023 and Monthly Energy Review 1/29/2024.

As extreme weather strains the grid and demand grows, renewable sources of energy are already playing a significant role in building grid resilience. The EIA projects that renewable generation will supply nearly half of all electricity by 2050.²⁹⁴ Already, 2,510 gigawatts (GW) of clean electricity generation and storage capacity are seeking interconnection to the grid—twice the installed capacity of the U.S. power plant fleet.²⁹⁵ Around the

country, wind turbines, solar energy, and batteries often buttress the grid when extreme heat or other weather events tax it the most.^{296,297,298} During summer heat waves, when energy demand is generally at its peak, renewable energy sources can stay online and keep energy costs down for families.²⁹⁹

Long-distance transmission, increased interconnection, and upgrades to existing infrastructure are needed to manage growth and connect more renewables to the grid

Building more long-distance transmission lines can help connect newly generated energy to markets where it is in higher demand. However, the volume of projects that are waiting to be added to the grid (or interconnected) has overwhelmed the United States' old system used to connect new electricity sources to homes and businesses.³⁰⁰ Interconnection approvals for the nation's largest regional grid now take an average of four years. Community benefit agreements (CBAs), legal agreements between community groups and developers that stipulate the benefits a developer agrees to fund or provide to a community, can help new projects get off the ground by garnering local buy-in and support.³⁰¹ CBAs can guarantee local benefits, such as local job creation and training, economic trust funds, and revenue sharing or ownership configurations.³⁰²

To get more out of existing transmission, grid-enhancing technologies (GETs) can enhance asset utilization, better manage congestion, and minimize curtailments of generation resources.³⁰³ Advanced conductor cables and dynamic line ratings are two examples of GETs that can accelerate the clean energy transition by getting more energy out of our existing grid.^{304,305}

Policies and investments are already supporting the expansion of clean electricity that is vital to the energy transition

Congress and the Biden administration have taken important steps to ensure that appropriate regulation and ample funding exist to boost renewable electricity production. The Inflation Reduction Act (IRA) supercharged investments in utility-scale solar projects, wind power, and energy storage.^{306,307,308} For individuals and families, the IRA's Residential Clean Energy Credit provides a credit for local investment in solar, wind, geothermal, and energy storage that can complement broader grid modernization.³⁰⁹ The DOE has also announced \$1.3 billion in funding from the Bipartisan Infrastructure Law to further develop interstate transmission lines.³¹⁰

More policies to increase transmission and support GETs and household-level renewable energy and electrification could accelerate transmission, bolster the grid, and lower costs. Seven proposed bills in the 118th Congress address this need.³¹¹ These include JEC Chairman Heinrich's Grid Resiliency Tax Credit Act to provide tax credits for large scale transmission projects and GETs.³¹²

Though federal agencies have taken steps to facilitate permitting, significant barriers still exist. JEC Chairman Heinrich has introduced the FASTER Act to improve upon existing transmission siting and permitting practices without compromising environmental standards.³¹³ Legislation introduced by Senator Hickenlooper is designed to provide flexibility and capacity sharing between grid operators across the country.³¹⁴ And various firms are deciding to nearshore supply chains—bringing manufacturing processes closer to home—to avoid snarls from extreme weather events and geopolitical crises and to increase domestic jobs.³¹⁵

Growing the economy of the future: job training for the clean energy transition

Investments in the Inflation Reduction Act (IRA) and the Bipartisan Infrastructure Law have increased the demand for workers who can fill roles in a range of clean energy occupations. This need creates an opportunity for millions of Americans to start stable careers they can build a family around that do not require a four-year college degree and to employ women and people of color more intentionally in the sector.

The clean energy workforce is growing rapidly as the economy transitions away from fossil fuels

From 2021 to 2022, the U.S. Department of Energy found that job growth in clean energy roles grew by 3.9%, outpacing the national employment growth rate of 3.1% in that same window.³¹⁶ The Bureau of Labor Statistics (BLS) also predicts long-term demand for these workers: BLS projects wind turbine service technicians to be the fastest-growing occupation between 2022 and 2032, with solar photovoltaic installers also among the top 15.³¹⁷ Looking more broadly, BLS also predicts that over the next decade the United States will need to fill at least 735,000 job openings for electricians, 426,000 for plumbers and pipefitters, nearly 400,000 for HVAC mechanics, and nearly 100,000 for utility line workers to meet demand. These positions, while not also thought of as parts of the clean energy workforce, play a vital role in the energy transition.^{318,319,320,321}

Given the industry's job and economic forecasts, jobs in the clean energy economy will grow significantly in the United States in the coming years.³²² This expanding need for people who can build and maintain clean energy infrastructure is notably occurring alongside a long-term decline in the number of building trades

workers, brought about by an aging workforce and lagging investment in worker training.^{323,324}

Clean energy jobs can provide pathways into the middle class for a broad set of communities across the country

While the broad range of clean energy occupations pay different wages depending on the sector, electricians, construction managers, and wind turbine technicians all were paid close to or above the national average salary.³²⁵ There is also an emerging contingent of labor and climate groups working together to expand worker protections and increase pay in a range of clean energy fields.^{326,327}

The U.S. Department of Energy's recent energy employment report highlighted that the share of energy sector employees represented by a union was 11% last year, higher than the national unionization rate of 7%.³²⁸ The U.S. Department of Energy's report also highlights how veterans make up a larger share of the U.S. energy workforce (9%) compared to their share of the U.S. workforce in all industries (5%).³²⁹

Investing in career and technical education and community colleges supports important pathways to create clean energy jobs

The Bipartisan Infrastructure Law is already investing \$72 million in programs training people for clean energy careers by partnering with existing institutions like community colleges and trade schools.³³⁰ In 2020, 29 states had career and technical education programming that set students up for careers in clean energy, including through courses, academic pathways, and certification programs.^{331,332}

Two-year community college programs, which are shorter and cheaper than programs at four-year institutions, can also train

students for and connect them with clean energy jobs while reducing the need for burdensome student debt.³³³

For instance, California's Kern Community College District is using grant money from the U.S. Department of Energy to connect with local clean energy employers and students from underrepresented communities.³³⁴ The grants also provide funds to equip future workers in the industry with its latest technologies.³³⁵ Additionally, CNM Ingenuity, Central New Mexico Community College's workforce development arm, provides opportunities for workers to begin or advance their solar careers.³³⁶

Apprenticeship programs create additional pathways for people to train for unionized trades careers that are vital to the energy transition

Registered apprenticeships (RA) are joint partnerships that are often between educational institutions, employers, and unions. Registered apprenticeships allow people to earn money and learn technical skills on-the-job and in the classroom, while letting employers train and invest in their future employees. The IRA supports the successful RA program by requiring that clean energy construction projects using IRA funds hire RAs.³³⁷

The growing demand for clean energy workers means that RA programs should create more training slots for roles crucial to the energy transition like electricians, pipefitters, and water treatment specialists.³³⁸ See Chapter 6 of this Response to learn more about how registered apprenticeships can address new and existing workforce shortages and how the program can be strengthened.

Training programs can also effectively help people currently working in some fossil fuel industries access new positions in the clean energy sector

The overlapping skillsets required between people working in hydraulic fracturing and geothermal power, fossil fuel power plants and offshore wind power, or between oilfield work and clean hydrogen production suggest a viable pathway for employment transition for current energy sector workers.^{339,340,341,342,343}

Some recent data show that clean energy job opportunities are growing in areas with higher shares of fossil fuel extraction workers. This is promising for the prospects of job availability for these newly trained and retrained workers.³⁴⁴ Several important tax credits in the IRA offer bonus credits for siting new clean energy facilities in communities that rely or have relied on fossil fuels for both jobs and local revenues.³⁴⁵

Ensuring women and people of color have equitable access to and benefits from clean energy job and training programs will strengthen the workforce

A DOE report found that half of the new workers in the energy sector were women.³⁴⁶ This is a positive development for the energy sector, which otherwise continues to have an all-around lack of gender and racial diversity.³⁴⁷ This trend also exists in training programs. Among active RAs across all fields, women and people of color are disproportionately underrepresented and underpaid.³⁴⁸

Participation of women and people of color in the clean energy workforce will be critical for strengthening the overall labor force and economy and connecting diverse populations with the industry's high-quality jobs.^{349,350} A diverse workforce and

management team have greater levels of innovation, which can help increase revenue, especially given the clean energy sector's heavy reliance on innovation.

The Biden administration is taking steps to address this. For example, the CHIPS and Science Act requires funding recipients to have a plan to provide childcare for their workers—a policy that should help address one of the key factors that keep many women out of the labor force and which is showing early promise.^{351,352,353}

The importance of international climate finance

Support for developing countries is critical to meeting collective climate goals and mitigating costs at home and abroad

While significant efforts are underway to reduce carbon emissions and adapt to a warming world, more remains to be done to ensure that developing countries are not left behind in this transition. Bolstering investment in climate change mitigation and adaptation in developing countries is vital to achieving global climate goals and minimizing the damages from increasing climate-related disruptions in developing countries.

Across advanced economies, the uptake of clean energy, increasing energy efficiency, and electrification have led to a decline in emissions in recent years despite continued economic growth.³⁵⁴ However, both the effects of climate change and progress in mitigation and adaptation are unequally distributed across the world. In many developing countries, emissions and GDP are still growing in tandem, with fossil fuels continuing to play a dominant role in meeting the rising energy demands of businesses and households.³⁵⁵ Developing countries also face greater risks from drought, sea-level rise, and other aspects of climate change—and have less capacity to adapt to them.^{356,357}

This disparity has made mobilizing financial support for climate adaptation and clean energy projects (climate finance) in developing countries a key goal of multilateral climate change efforts.³⁵⁸ In 2009, developed countries agreed to commit \$100 billion in public and private funding annually by 2020 for this purpose.^{359,360,361} However, this target was not met until 2022, and recent estimates suggest that the true external financing needs will have reached \$1 trillion per year by 2030.^{362,363} Financing has also been greatly skewed towards mitigation measures rather than adaptation and resilience, with the former receiving more than 18 times as much funding between 2021 and 2022.^{364,365}

While mitigation measures are essential to preventing further temperature rise, insufficient investment in adaptation measures for agriculture and other key sectors greatly increases the risk of political and economic destabilization. These impacts will not be limited to developing countries but are also likely to reach advanced economies in the form of mass migration, supply chain disruptions, pandemics, conflict, and higher post-disaster relief expenses.^{366,367,368} In 2019, the Red Cross estimated that humanitarian assistance costs could rise by 20-40% by 2030 absent significant climate adaptation measures.³⁶⁹

Longstanding efforts to attract private investment in emerging economies' infrastructure have made limited progress

The World Bank, Organisation for Economic Co-operation and Development (OECD), International Monetary Fund (IMF), and other key development organizations have long emphasized the need for greater private investment to bridge the gap in climate finance and minimize the use of scarce public funds.³⁷⁰ Initiatives such as the World Bank Group's Maximizing Finance for Development have sought to help developing countries and

development banks implement policies to attract this investment.³⁷¹

Despite these efforts, private climate investment in developing countries continues to lag well behind public funding—and far short of the levels required to meet global adaptation and mitigation needs. In 2021, total private climate finance amounted to just \$14.4 billion, or 16% of the total funding mobilized by developed countries.³⁷² Developing countries also accounted for just 15% of clean energy investment in 2023, despite significant untapped potential.³⁷³ Africa, for example, is home to 20% of the world’s population and has abundant solar, geothermal, wind, and hydropower resources—but attracts just 3% of global clean energy spending.^{374,375}

A key reason for the relative lack of investment in developing countries is that they are perceived as facing greater macroeconomic and political risks. This significantly raises their cost of capital, or the return investors require to finance projects.³⁷⁶ To encourage greater private investment, the OECD and other international organizations have largely advocated for expanding the use of existing de-risking measures, such as loan guarantees, blended finance, and risk insurance.^{377,378} These tools help lower risks and increase returns to investors by backing projects with public funds. However, significant challenges remain in scaling up these efforts and in attracting investment in key areas such as infrastructure.^{379,380,381}

Mounting fiscal pressures are further hampering the ability of developing countries to make climate investments

While developing countries seek to make their own investments in clean energy and climate change adaptation, developments in recent years have left them increasingly ill-positioned to do so.

The pandemic, war in Ukraine, and climate impacts have placed considerable strain on many domestic budgets. Additionally, rising U.S. interest rates pushed up debt servicing costs in developing countries and led to an historic outflow of foreign investment that could have otherwise gone to climate investments.³⁸² Debt payments by low- and middle-income countries reached \$443.5 billion in 2022—the highest level in history.³⁸³

As of 2023, 48 countries, home to 3.3 billion people, were spending more on the interest on their external debt than on education or health.³⁸⁴ This trend is expected to continue in 2024, with low-income and middle-income countries expected to spend an average of 2% of GDP servicing their external debt.³⁸⁵ Absent significant intervention, rising debt burdens threaten to trap these countries in a vicious cycle, with debt payments taking precedence over investments in growth and climate action, which are essential to economic stability in the longer term.³⁸⁶

New approaches can help debt-distressed countries make urgent climate investments

In addition to debt restructuring, payment pauses, and other measures that more directly address the impact of rising debt burdens, policymakers have also proposed other options to ensure that countries are still able to make needed climate investments. These include debt-for-adaptation and debt-for-nature swaps.³⁸⁷ The former allows for a portion of countries' debt to be forgiven if repayment funds are instead used for climate adaptation. The latter similarly supports the preservation of biodiverse ecosystems, which are essential to both climate change mitigation and the global economy.^{388,389} Debt-for-nature swaps are already underway to support the conservation of critical marine ecosystems in the Galapagos Islands, Barbados, and Belize.^{390,391}

Several countries have also proposed imposing taxes and levies on activities such as shipping and aviation to fund climate action. At COP28, a task force was launched by representatives from Barbados, France, Kenya, and others to examine the potential for these and other innovative funding sources. They have since found that global agreement on the range of taxes and levies they considered could help generate an additional \$2.2 trillion a year. The task force is expected to put forward relevant options before COP30 in 2025.³⁹²

Increasing U.S. international climate finance is critical to meeting global targets and minimizing climate costs

Additional funding from the United States and other advanced economies is greatly needed to support climate adaptation and mitigation. Public funds will continue to play an essential role in helping to draw in private investment and in funding projects where private finance is unlikely to meet needs. The additional \$11 billion in funding the World Bank recently secured from advanced economies, including \$750 million from the United States, could help leverage as much as \$70 billion in lending.³⁹³ However, an earlier proposal by the Biden administration, which stalled in Congress, would have instead provided \$3.3 billion, helping to generate more than \$25 billion in financing.³⁹⁴

Increasing U.S. international climate finance was an early priority of the Biden administration, which pledged in 2021 to allocate more than \$11.4 billion annually by 2024.³⁹⁵ \$3 billion of this funding was to be directed to adaptation efforts. To date, the funding appropriated by Congress has consistently fallen far short of these levels, and U.S. climate finance commitments remain significantly below those of other advanced economies.^{396,397,398}

Given the costs of inaction, it is vital that the United States and other advanced economies help address the impact of rising debt burdens on climate investment, increase their support for development institutions and international resilience work, and explore all available options to increase private investment in developing countries.

Areas for future exploration

The Biden administration and Congressional Democrats have taken historic steps to address the costs and risks posed by the climate crisis, enhance resilience, and embrace the opportunities of the clean energy transition. Further action is needed to address the climate crisis, as has been described in this chapter. Other important emerging topics in this space include industrial decarbonization and a Carbon Border Adjustment Mechanism (CBAM), a bipartisan tool that aims to cut global pollution and support American industry.³⁹⁹ CBAM proposals in the United States focus on the industrial sector, both because it produces a quarter of all global carbon dioxide emissions and because it covers the production of traded goods.⁴⁰⁰ Since U.S. goods are 40% more carbon efficient than the world average, using a CBAM to account for higher emissions in other countries would make many domestic industries more competitive.⁴⁰¹ With the expiration of many of the provisions of the Tax Cuts and Jobs Act in 2025 and discussions of a new tax bill on the horizon, a CBAM could be a powerful tool to help lower global emissions within the tax code.

CHAPTER 4: CREATING CONDITIONS FOR EQUITABLE GROWTH

Democrats are fighting for a U.S. economy that gives everyone a chance to support their families, put food on the table, and keep a roof over their heads. Among other efforts, the Biden administration and Congressional Democrats have enacted place-based economic development initiatives to target distressed economies across the nation and prioritize many for new investment.

These efforts are needed to ensure economic growth reaches all regions of the United States. Without including the U.S. Territories, as of 2019 about 20 million people lived in counties that have experienced high levels of poverty since the 1990s.⁴⁰² All 78 counties in Puerto Rico have been in poverty for at least the last thirty years, according to 2015 U.S. Department of the Treasury data, in addition to all of American Samoa, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands.⁴⁰³ Of the 318 counties that faced persistent poverty in 2021 within states, the majority (84%) were rural (nonmetro) counties, and were primarily in the southeastern and the southwestern regions of the country.^{404,405} Notably, these are also the two regions that are experiencing the greatest negative economic impacts from climate change.⁴⁰⁶ Finally, a vast majority (87%) of counties that have faced persistent poverty since 1990 had a 20% poverty rate—or higher—in every decennial census since 1960.⁴⁰⁷

Through a series of initiatives, Democrats are working to give communities across the country an equal chance at growth and a lead role in the nation's manufacturing and innovation renaissance, along with the green energy transition.⁴⁰⁸ With

policies that focus on remedying challenges specific to these regions and create well-paying jobs across the country, Democrats are working to build a future where regardless of where Americans live, everyone has the opportunity to succeed.

President Biden's growth-driving initiatives prioritize equitable access to economic growth across communities

Understanding the needs of the moment, the Biden administration and Congressional Democrats passed major legislation that stimulated the national economy, while also prompting growth in communities that had faced long-term economic distress. Beginning with the American Rescue Plan (ARP), Democrats created programs that would establish and maintain business ecosystems and workforce development in distressed communities. They then led the passage of the Bipartisan Infrastructure Law (BIL), the CHIPS and Science Act (CHIPS Act), and the Inflation Reduction Act (IRA), which, among other objectives, targeted infrastructure, manufacturing, and workforce capacity to establish global economic competitiveness in communities that need it the most.

The American Rescue Plan laid the groundwork for place-based development programs taken up in later legislation

Among other accomplishments, ARP empowered the U.S. Department of Commerce's Economic Development Administration (EDA) to invest \$3 billion in localized efforts to help economies recover from impacts of the COVID-19 pandemic, and establish resilient local economies for the future.⁴⁰⁹ Included in these EDA programs, the Build Back Better Regional Challenge directs investment towards developing industry coalitions to revitalize local industry across 21 regional centers.^{410,411} Cluster specializations include clean energy, advanced mobility and aerospace, natural resources and agriculture, next generation

manufacturing, Indigenous finance, and biotechnology and health.⁴¹² This program awarded \$1 billion to 21 projects that will grow good-paying jobs while enhancing U.S. competitiveness in these industries.⁴¹³

The Good Jobs Challenge under ARP also aimed to increase regional investment in job training, workforce participation, and employment growth. This program provided \$500 million to industry-led projects across the country to increase the supply of trained workers in their communities, grow industries central to U.S. supply chains and global competition and prioritize economic development in the projects' respective regions.⁴¹⁴ This program has supported 32 projects throughout the United States, from Alaska to Puerto Rico.⁴¹⁵ According to 2022 estimates, the program is projected to add more than 50,000 new, good-paying jobs to the workforce, primarily in health care, information technology, manufacturing, energy, and resilience industries.^{416,417}

The ARP's Economic Adjustment Assistance Program made \$500 million available for projects that address barriers to economic development in distressed communities.⁴¹⁸ The purpose of these projects is to bring critical infrastructure to communities that have suffered from underinvestment, as well as to develop thriving business ecosystems and create workforce development programs that allow community residents the opportunity to access good-paying jobs.⁴¹⁹ The program supports projects in 48 states, the District of Columbia and Puerto Rico, has provided funds to 256 grantees, and is expected to create or retain over 64,000 jobs.⁴²⁰

The ARP also allocated \$350 billion towards the State and Local Fiscal Recovery Funds (SLFRF) through the U.S. Department of the Treasury, which has allowed for increased growth in local economies.^{421,422} With these funds, local leaders covered

pandemic-era revenue losses, and began setting up initiatives to overcome persistent local challenges, including affordable housing and workforce development initiatives.⁴²³ These investments can help avoid the stark drop in state and local budgets, hiring, and capacity that followed the Great Recession.⁴²⁴

The Bipartisan Infrastructure Law has spurred the largest amount of funding per capita in states with the greatest need for infrastructure investment

Recognizing the opportunity of the moment to upend past inequalities in infrastructure investment, the Biden administration is ensuring the BIL's historic investment in infrastructure is reaching the communities with the greatest need first.

Recent data show that the Biden administration has been successful in this effort; BIL funding is moving to states and communities that are most in need of infrastructure repair and construction. For example, when considering the amount of funding allocated per person in each state ("funding per capita"), states with infrastructure in the poorest condition are receiving nearly \$1,500 more in per capita funding than states with infrastructure in moderate condition.^{425,426} In addition, states with lower household median incomes have tended to receive more funding than states with higher household median incomes.⁴²⁷

The Biden administration has also prioritized rural America in BIL investments. For example, by allocating \$4.58 billion in Rural Area Formula Grants, the Biden administration has supported updates to 1,300 rural transit systems as of November 2023. Moreover, with the BIL's \$50 billion investment in water and wastewater infrastructure, rural areas have been able to increase access to clean drinking water and sanitation, as well as reduce the negative impacts of drought.⁴²⁸

More than 180 BIL programs also fall under President Biden's Justice40 Initiative, which sets the goal of dedicating at least 40% of funding in these programs to disadvantaged communities. This has allowed for more climate and clean energy investments in these communities, resulting in increased access to clean drinking water, improved flooding resiliency, and clean-ups of Superfund Sites.⁴²⁹ Additionally, as part of the Reconnecting Communities and Neighborhoods Program, the U.S. Department of Transportation has allocated over \$3 billion towards connecting neighborhoods to economic opportunities that they had lost access to in the past following the construction of transportation infrastructure like highways.⁴³⁰

Moreover, BIL investments are eliminating disparities in broadband internet access while expanding connectivity for all Americans. Rural communities, low-income communities, and people of color are disproportionately more likely to lack broadband access.^{431,432} Disparities in digital distress metrics can partly be attributed to cable TV and internet providers' unwillingness to provide service in certain areas.⁴³³ High upfront costs associated with low population densities, long distances between existing infrastructure, and payment delinquency concerns associated with low-income families are often cited as reasons why internet providers decline to provide service in these disadvantaged areas.⁴³⁴ The recently expired Affordable Connectivity Program (ACP) was vital in bridging the digital divide, providing \$700 million in monthly relief to help families access broadband internet.⁴³⁵ Absent government intervention, the private market system only reinforces disparities in connectivity for already disadvantaged communities.⁴³⁶

However, increased access to broadband has proven to be a key driver for more inclusive economies that effectively help reduce systemic inequality.^{437,438} Research shows that there is a positive relationship between high-speed internet access and economic growth, with two studies focusing on Indiana finding that every \$1 invested in rural broadband deployment returned \$3 to \$4 in increased economic benefit.^{439,440} Research also shows that residential broadband can help increase household income.⁴⁴¹ Additionally, studies of past broadband rollouts find that expanded internet access can help increase married women's labor force participation, primarily through increased telework and at-home production.⁴⁴²

Recognizing the opportunities broadband access provides, the Biden administration is helping reduce systemic inequality through BIL broadband funding and programs. The BIL has invested more than \$65 billion in planning, infrastructure, and adoption efforts to help bridge the digital divide and lower prices.⁴⁴³ BIL investments also include over \$48 billion to the National Telecommunications and Information Administration (NTIA), \$14.2 billion to the FCC for the ACP, and over \$5 billion to the U.S. Department of Agriculture for the ReConnect Loan and Grant Program.^{444,445,446}

Finally, the BIL provided the largest single investment in Tribal infrastructure in history, at \$13 billion.⁴⁴⁷ With just a portion of this funding, 247 grants have gone to Tribal nations across the United States for transportation infrastructure improvements.⁴⁴⁸

Taken together, the Biden administration is using the historic passage of the BIL to ensure that infrastructure renewal and development improves the lives of people in communities across

the United States and lays the groundwork for enhanced and equitable economic opportunity.

The CHIPS and Science Act targets underserved communities for new manufacturing hubs and investment incentives

The CHIPS and Science Act (CHIPS Act) has been lauded as an essential tool for driving U.S. economic growth and national security. At the same time, the bill's provisions aim to uplift underserved communities by reducing employment gaps and investing in communities' capacity to innovate, develop, and produce essential U.S.-made technology.

As the United States increases its global competitiveness in tech manufacturing, communities previously left behind by globalization are able to take advantage of America's manufacturing renaissance through the CHIPS Act. Using the Regional Technology and Innovation Hubs ("Tech Hubs") program under the EDA, the Biden administration has focused funds on building business ecosystems for technology and innovation in regions with the "assets, resources, capacity and potential to become globally competitive."⁴⁴⁹ Many of these Tech Hubs will be headquartered in states with among the lowest median income levels in the nation, as well as those in the Rustbelt.^{450,451} Such investments will help increase the number of high paying jobs while growing the technology and innovation workforce in these communities.⁴⁵²

The CHIPS Act also created EDA's Distressed Area Recompete Pilot Program, to direct investments towards communities with prime-age employment levels (employment for individuals ages 25 to 54) below the national average.⁴⁵³ Through Recompete Plans and Strategy Development Grants, community leads propose comprehensive economic development initiatives linked to

growing the workforce for competitive U.S. industries that would, over multiple years, reduce their communities' employment gap.⁴⁵⁴

The Inflation Reduction Act's renewable energy tax credits provide incentives to invest in rural and underserved communities

Through the IRA, the Biden administration has incentivized private investment in communities facing barriers to growth, while also enhancing manufacturing and development for the renewable energy transition. The law established the Low-Income Communities Bonus Credit program, where companies and investors receive bonus credits to stack on top of the regular IRA clean energy tax credits when they invest in designated low-income communities, Tribal lands, and affordable housing developments.⁴⁵⁵

Since the IRA's passage an increased share of clean energy investment has gone to low-income communities and communities with lower educational attainment. For example, between January 2018 and July 2022, 68% of investments in clean energy technologies went to counties whose median incomes fell below the national median income.⁴⁵⁶ That percentage increased to 75% in the years following the IRA's passage. Similarly, prior to the IRA's passage, 79% of these investments went to counties with lower college graduation rates than the U.S. average.⁴⁵⁷ This number climbed to 84% following the IRA's passage.⁴⁵⁸

"Energy Communities" (ECs) have experienced some of the greatest gains in clean energy investments following IRA's passage.⁴⁵⁹ These are communities that have historically relied on the fossil fuel industry for tax revenue, as well as for residents' income and employment.^{460,461} The IRA explicitly prioritized these communities to ensure they would not be left behind in the

energy transition.⁴⁶² Like the Low-Income Communities Bonus Credit, the IRA provided bonus tax credits for certain investment or production activities that companies carry out in ECs.^{463,464}

That prioritization is paying off. Prior to the bill's passage, ECs were receiving lower levels of clean energy investments than non-ECs, with monthly investments in ECs averaging \$2 billion, and those in non-ECs averaging \$2.5 billion. And while the IRA was effective in boosting clean energy investments across the country, Energy Communities were the greatest beneficiaries. In the years following the IRA's passage, clean energy investments in ECs surpassed investments in non-ECs, both in terms of the *level* of average monthly investments (\$4.5 billion for ECs versus \$3.5 billion for non-ECs) and in terms of *growth* in average monthly investments (+\$2.4 billion for ECs versus +\$1 billion for non-ECs).⁴⁶⁵

The IRA has also prioritized investment in energy and climate resilience among Tribal and Native communities. While Tribal Nations and Native communities have access to multiple programs under the IRA, \$720 million is exclusively available for these communities, including the Tribal Electrification Program, the Tribal Climate Resilience program, and the Tribal Energy Loan Program.⁴⁶⁶ Investment and production activity based in Tribal lands also can receive bonus tax credits that companies stack onto their other IRA clean energy tax credits.⁴⁶⁷

By blocking funding for these efforts, Republicans are increasing the gap between wealthy regions and those that are struggling

While the Biden administration and Congressional Democrats are working to fund the programs discussed above, Republicans have either threatened to cut programs or blocked full funding for many. For example, Republican leadership has threatened to roll back

key provisions in the IRA, including the tax credits that have incentivized investments in fossil fuel-dependent and lower income communities.⁴⁶⁸ Moreover, while the CHIPS Act’s Recompete Program is authorized at \$1 billion per year, only \$200 million has been appropriated towards the program by Congress.⁴⁶⁹ Similarly, while the Tech Hub program is authorized at \$10 billion over five years—averaging to \$2 billion per year—Congress only appropriated \$500 million in the first year.⁴⁷⁰ This is in spite of bipartisan agreement that it is in the interest of the nation’s collective growth and national security to fully fund each of these programs up to their authorized amounts.^{471,472} In addition to these programs, greater funding for other tools, such as Regional Commissions, can help ensure that economic prosperity reaches all Americans.

Regional commissions help drive growth in underserved regions, but need full funding to generate economic prosperity

Over the years, Congress has taken particular interest in counties that have faced poverty rates of 20% or higher for 30 years. Beginning with the American Recovery and Reinvestment Act in 2009, Congress set aside 10% of funds from three rural development programs for “persistent poverty counties.”⁴⁷³ These were defined as counties that had a poverty rate at 20% or higher for each decennial census taken in the three decades prior (1980, 1990, 2000). For this reason, the provision is referred to as the 10-20-30 provision.⁴⁷⁴ Since then, Congress has included 10-20-30 provisions in multiple appropriations laws to ensure economic development funding moves towards these counties.⁴⁷⁵ However, under the Trump administration, agencies tended to allocate below the 10% amount across programs.⁴⁷⁶

As quasi-governmental institutions, regional commissions offer an opportunity to ensure continued private and public funding,

despite changes in Presidential administrations. Underfunded commissions could create much needed and consistent investment in their regions if provided funding on level with well-funded commissions.

Research has shown that regional commissions are effective tools for spurring economic growth

The federal government has worked with state and local partners to spur economic development in distressed communities across the United States using regional commissions or authorities.⁴⁷⁷ Currently, there are eight commissions that cover various regions. The oldest of these commissions is the Appalachian Regional Commission (ARC), established in 1965.⁴⁷⁸ Congress then established seven more commissions in the following decades and modeled them on the ARC.⁴⁷⁹

While the make-up of regional commissions or authorities can vary, they share similar structures and economic development objectives. Each commission has specific states or counties that fall within its jurisdiction.⁴⁸⁰ Each is also headed by a federal co-Chair, whom the President appoints, a board of state governors and a state co-Chair who is both selected from and elected by the state governors.⁴⁸¹ In addition to gathering research from state and local sources, commissions can work with states to create an overarching strategic plan for development, as well as support states in creating state-level development plans and in drafting state-level legislation to help spur local and regional development.⁴⁸² Commissions also have the ability to approve grants for development projects that align with the regional strategy.⁴⁸³ Such projects include those focused on transportation and telecommunications infrastructure, job skills training and education related to entrepreneurship, technology, business

development, and development of renewable or alternative energy sources.⁴⁸⁴

Empirical studies have shown that well-funded commissions have been successful in alleviating poverty in their designated regions. For example, a study of the ARC surveying 26 years of data found that population, earnings, total income and per capita income all increased in counties with ARC programs, relative to similar counties that did not have ARC programs.⁴⁸⁵ Another study on the Delta Regional Authority (DRA), which is focused on economic development in the Mississippi River Valley, found that the DRA had an overall positive impact on the economy through lowering unemployment, spurring growth in annual median income, and decreasing child poverty in the region.⁴⁸⁶ According to JEC calculations using Congressional Research Service data, these two regional commissions have among the highest levels of funding of all of the regional commissions, with the ARC receiving \$3.5 billion and the DRA receiving \$659 million in real terms, between 2001 and 2023 alone. Among all commissions that have received funding, the median amount received since 2001 is \$380 million.⁴⁸⁷

Still, regions of the country that face the greatest challenges to economic growth have drastically underfunded commissions. For example, the Southwest Border Regional Commission (SBRC) and the Southeast Crescent Regional Commission (SCRC) serve communities that could significantly benefit from the targeted economic development programs that commissions would offer.⁴⁸⁸ Yet, these commissions' real per capita appropriations since their creation—using the 2021 ACS 5-year population estimates—totals 26 cents and 69 cents, respectively.⁴⁸⁹ Meanwhile, the Northern Border Regional Commission (NBRC), authorized at the same time as the SCRC and SBRC, has about

\$90 in real per capita funding. With its fleshed out strategic plan, and multiple projects already funded, the NBRC provides an example of what the SBRC and SCRC would accomplish for distressed communities if provided sufficient funding.⁴⁹⁰

Targeted federal funding can help spur economic growth in Puerto Rico

Puerto Rico is once again beginning a path to economic growth despite multiple challenges over the past two decades.⁴⁹¹ There is now an opportunity to maintain and bolster that growth through large-scale investment in critical infrastructure. The U.S. Congress has appropriated \$12 billion in relief funding to rebuild Puerto Rico's energy system, including modernizing the energy grid, in response to the destruction that multiple natural disasters have caused. These funds offer an opportunity for investment in a modern grid that facilitates renewable energy transmission and distribution, as well as in renewable generation infrastructure. A more resilient energy system that uses cleaner, domestically produced sources will protect communities' health and wellbeing and provide a strong foundation on which Puerto Rico can further build a future of strong and more equitable economic growth.

High energy costs have made it harder for the Puerto Rican economy to grow

As is true for most economies, Puerto Rico's major industries require consistent and affordable electricity to operate effectively. However, the price of energy consumption on the island far exceeds the U.S. average.⁴⁹² The grid mainly depends on fossil fuels, which the island must import, further driving up electricity costs.⁴⁹³ Renewable energy infrastructure can facilitate domestic energy production that could lower prices in the long run, making it easier for Puerto Rico to support current industry, further drive small business growth and diversify the economy.

The debt crisis in Puerto Rico could increase energy costs and endanger future growth

Compounding the challenging growth outlook is the sharp increase in public debt that began after the mid-1990s.⁴⁹⁴ Outside investors capitalized on recent legal loopholes that removed the government's constraints on borrowing, as banks and investors pushed deals to increase Puerto Rican debt that earned them large profits.^{495,496,497} Ratings agencies also maintained investment-grade credit ratings for Puerto Rico, which contributed to sustained investor demand for debt despite Puerto Rico's ongoing recession.^{498,499,500} Later, when ratings agencies downgraded the island's debt, "vulture" firms exploited the island's difficult position by only lending Puerto Rico the funds it needed to cover older obligations at extremely high interest rates.^{501,502,503} This further added to Puerto Rico's debt burden, squeezing funds until the governor declared the debt "unpayable" in 2015.⁵⁰⁴

In 2016, the federal government created the Federal Oversight and Management Board (FOMB) to lead efforts in restructuring Puerto Rican debt.⁵⁰⁵ The entity has no direct oversight from the federal government and is able to enact a budget for Puerto Rico, even when the Puerto Rican legislature is not in agreement with that budget.⁵⁰⁶

Puerto Rico formally emerged from bankruptcy in March 2022, but more than \$9 billion owed by the public electric utility company, "PREPA", or "AEE" in Spanish, remains outstanding.^{507,508,509,510} The FOMB's debt restructuring plan for PREPA will determine the additional amount that customers will pay in their electricity bill each month to repay outside debt-holders.^{511, 512} Advocates are concerned that prices in the FOMB's recent proposal are too high to allow for future economic growth.⁵¹³

A clean energy system can provide a path to future prosperity

In 2017, Hurricanes Maria and Irma hit Puerto Rico, causing an estimated \$90 billion in damages.^{514,515} The Trump administration then delayed emergency funding and funding for permanent repairs to infrastructure.^{516,517} A Harvard study estimates that 4,645 people died in the following months, largely due to lack of critical infrastructure repairs and access to electricity for medical devices.⁵¹⁸ Another study, estimating 2,975 deaths after the hurricanes, found elderly or lower-income residents were most vulnerable in the aftermath.^{519,520} In early 2020, a 6.4-magnitude earthquake left two-thirds of the island without power.⁵²¹ Combined with aftershocks that continued into the summer, the events severely damaged the grid and two major power plants.

In response to these disasters Congress appropriated a combined \$12 billion to modernize the grid and support Puerto Rico's energy infrastructure, but this has not yet resulted in comprehensive changes to the system.^{522,523} While the island struggles to access private capital, these funds can serve as the initial investment in a renewable-based system. This also aligns with Puerto Rican law, which requires that the island reach 100% renewable energy dependence by 2050.⁵²⁴ Moreover, a 2018 JEC Democratic staff report highlighted that a transition to renewable energy would lower energy prices and create a path to increased growth.⁵²⁵ Such infrastructure can also ensure vulnerable communities, whose health depends on access to electricity, are not left without power.⁵²⁶

Federal funding is available to support Puerto Rico in rebuilding its energy system. By unlocking this funding and ensuring that it is directed towards a new system based in renewable energy, the federal government can help Puerto Rico become a leader in the clean energy transition. Strong growth in this sector offers the

opportunity to build more Puerto Rican owned renewable energy businesses, initiate job growth that prioritizes the hiring of Puerto Ricans, protect the wellbeing of local communities, and help secure a new path of economic progress.

Territories across the United States need equitable access to data in order to improve their economies

The five U.S. Territories—American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, and the U.S. Virgin Islands—are treated unevenly across the 13 principal statistical agencies of the federal government and are often excluded from federal data products. Without this data, policymakers lack complete and accurate demographic, economic, employment, health, environmental, and agricultural information about the Territories. These insufficient data prevent policymakers from making informed decisions, leading to the underrepresentation of residents of the Territories and underfunding in federal programs. Like each state, each Territory has a unique population and faces unique challenges, but without timely and accurate data, policymakers and stakeholders cannot understand them fully. While there are some significant operational challenges when it comes to surveying the populations of the Territories, the federal government must do more to better include them in federal data products. Bipartisan legislation has been introduced in Congress to address disparities in federal data collection for the U.S. Territories.

Disparities in federal data collection lead to underrepresentation of residents in U.S. Territories

The federal statistical system does not provide comprehensive coverage of the U.S. Territories. The 13 principal statistical agencies completely exclude or only provide partial coverage of the five Territories in many major data products. These products

are the premier sources of information about the nation and its population, including the Census Bureau's American Community Survey and Current Population Survey, the U.S. Commerce Department's Population Estimates, and the Bureau of Labor Statistics' Current Employment Statistics and Local Area Unemployment Statistics, among others.⁵²⁷ Federal public health data sets also often exclude the Territories.⁵²⁸ According to a review of 32 commonly used federal public health data sets by the Association of State and Territorial Health Officials, only four data sets included all five Territories.⁵²⁹

Inadequate federal data collection means that the 3.6 million residents of the U.S. Territories—more than the combined population of the five smallest states—are underrepresented in these federal data products, leaving policymakers and stakeholders with an incomplete picture of the population.⁵³⁰ Policymakers use federal data to decide policy and allocate resources in various ways. For example, the federal government uses data from the American Community Survey (ACS) to enforce employment antidiscrimination laws; calculate Fair Market Rent to determine payments for housing assistance programs; and evaluate the needs for veteran health care, education, and employment.^{531,532} Additionally, state and local governments use ACS data to evaluate the need for new roads, schools, hospitals, and other infrastructure; emergency planners use it for disaster preparedness and recovery efforts; and businesses use it to make strategic decisions.⁵³³ The ACS does not include the Territories except for Puerto Rico, which is covered by the Puerto Rico Community Survey. More broadly, without demographic data at the federal level, policymakers know less about things like ancestry, citizenship, educational attainment, housing arrangements, migration, poverty, and veteran status for the Territories. Without labor market data, policymakers know less about unemployment,

total payroll employment, and employment by industry. And without public health data, policymakers know less about nutrition, air quality, hospital care, immunizations, drug and tobacco use, pregnancy mortality, and occupational injuries.

Even when federal data products do include the Territories, they do not always include the same level of detail or share the same release schedule as data collected for the 50 states and the District of Columbia. For example, following the 2020 Census, the Census Bureau published population counts for four of the five Territories (not including Puerto Rico) six months after it published them for the 50 states, the District of Columbia, and Puerto Rico.⁵³⁴ Data for the Territories is also often outdated as the federal statistical system relies on less frequent data products in the absence of more regular data collection. For example, the ACS does not cover four of the five Territories (Puerto Rico is covered by the Puerto Rico Community Survey), so the Census Bureau collects data comparable to the ACS for these Territories through the once-in-a-decade Census “long-form” questionnaire.⁵³⁵ This provides policymakers with data that quickly becomes outdated.

Underrepresentation in federal data collection is a racial justice issue as the vast majority of the people living in the Territories are people of color.⁵³⁶ In Puerto Rico, for example, almost 99% of the population identifies as Hispanic or Latino.⁵³⁷ In the other four Territories, a majority of people identify as Asian or Native Hawaiian and Pacific Islanders.⁵³⁸ Underrepresentation in federal health data sets is also a health equity issue, especially given that the Territories have some more challenging health outcomes compared to the 50 states and the District of Columbia.⁵³⁹ This underrepresentation can mask the health disparities and needs of the Territorial populations. Representation matters, and this extends to inclusion in federal data products. Policymakers can

only make decisions for the whole population if the whole population is represented.

Operational and survey challenges make collecting this data for Territories more difficult, though some progress has been made

Most federal surveys conducted in the 50 states and the District of Columbia were not designed with Territories in mind, introducing challenges such as survey design, statistical reliability, cultural competence, and respondent burden and confidentiality. As some of the Territories have relatively small populations, statistical agencies would need to sample a larger proportion of households or likely would be unable to produce data products based on a population sample. Instead, they would have to conduct an enumeration of the full population, which is more costly and resource intensive.⁵⁴⁰

Statistical agencies would have to consider response burden, as the same households could be selected for multiple surveys, or in the case of an enumeration of the full population, all households would be surveyed. With small Territorial populations, statistical agencies would also have to consider what level of detail to release without compromising respondent confidentiality.^{541,542} The Census Bureau and other federal statistical agencies do not currently receive appropriated funds to undertake these more in-depth surveys, nor do they have permanent offices or staff in the Territories. All of these factors can make federal data collection more challenging.

However, data products across the federal statistical system do include Puerto Rico more than the other four Territories, and as such, these efforts can serve as a model for better including the other Territories. For example, the Census Bureau's American Community Survey (through the Puerto Rico Community Survey),

the U.S. Commerce Department's Population Estimates, and the Bureau of Labor Statistics' Current Employment Statistics and Local Area Unemployment Statistics include Puerto Rico while excluding the other four Territories.⁵⁴³ Puerto Rico tends to have greater representation among federal data products partly due to executive action. In 1992, President George H.W. Bush directed the federal government to "treat Puerto Rico administratively as if it were a State."⁵⁴⁴ Expanding this standard to all Territories would result in a more inclusive statistical system.

Proposed legislation would advance data equity for U.S. Territories

House Natural Resources Committee Ranking Member Raúl M. Grijalva and delegates from the U.S. Territories have introduced a pair of bills to address disparities in federal data collection for U.S. Territories. The first, the Territories Statistics Collection Equity Act, would direct the Interagency Council on Statistical Policy (ICSP) to develop and implement a plan to collect and publish statistics for the U.S. Territories in the same manner as states.⁵⁴⁵ Specifically, this bill would require the head of the ICSP to identify gaps in federal data collection, submit a plan to Congress for collecting and publishing statistics for Territories within one year of the bill's enactment, and to fully implement the plan within four years of the bill's enactment.⁵⁴⁶ The ICSP's role is to advise the Office of Management and Budget (OMB) on statistical policy and facilitate coordination across the federal statistical system.

The second bill, the Special Advisors for Insular Areas Act, would establish a Special Advisor for Insular Areas in each Executive department.⁵⁴⁷ This would ensure that Territories and their residents are not overlooked in federal policy and that efforts to include them more fully are better coordinated within each agency and across the federal government. Representative Raúl M.

Grijalva and delegates from the U.S Territories also requested that the U.S. Government Accountability Office (GAO) examine gaps in federal data collection for the Territories, determine the impact of these gaps on federal funding, and make policy recommendations about legislative and administrative actions to close these gaps.⁵⁴⁸ GAO found that for the large part agencies have not studied the cost or feasibility of efforts to better include the Territories in federal data products and recommended that OMB coordinate a government-wide approach for federal statistical agencies.⁵⁴⁹

In both 2018 and 2019, the House Appropriations Committee included language in accompanying reports to the Commerce, Justice, Science, and Related Agencies appropriations bill urging the U.S. Census Bureau to include the Territories in all national statistics and directing the Bureau of Economic Analysis to work towards including the Territories in its national-level GDP estimates.^{550,551} The Bureau of Economic Analysis does release GDP estimates for each Territory, though these estimates are notably less current than those for the 50 states and the District of Columbia.⁵⁵²

Additionally, ensuring adequate staffing and funding for the principal statistical agencies and their surveys, establishing permanent presences on Territories and hiring and/or expanding field staff, providing technical assistance to and contracting with Territorial governments, and extending Puerto Rico's more state-like treatment for federal data collection to the other four Territories would go a long way toward advancing data equity for the U.S. Territories. Combined, these measures along with bipartisan legislation would be more inclusive of the Territories, equipping policymakers and stakeholders with a more complete

snapshot of the population and leading to better policy and funding outcomes.

The federal government has a trust responsibility to improve Tribal Nations' access to federal programs

Tribal governments are working to build infrastructure to support their communities but face unparalleled challenges. Many Tribes need federal funding to help carry out public services due to historical and legal inequities continuing up to the present that impact Tribal Nations' ability to collect public revenues.^{553,554,555,556} However, Tribes face challenges in accessing government funding due to disparate requirements, complex bureaucratic processes, and agency-level delays.^{557,558} Climate change is especially threatening for these communities, which often lack access to resilient infrastructure and have faced barriers in accessing disaster mitigation and relief funds.^{559,560} Members of Tribal Nations and Native communities also face major barriers in accessing federally-backed loans for homeownership, and grants for agriculture or other areas of economic development.⁵⁶¹

Recognizing these barriers, in December 2023 President Biden signed an executive order to improve Tribal Nations' access to federal funds and further support Tribal sovereignty.⁵⁶² Among other changes made under this executive order, President Biden created a single hub for Native businesses and Tribes to search for and access federal funding, called the Tribal Access to Capital Clearinghouse.⁵⁶³ The executive order also requires the federal government to approach funding programs in a way that is more aligned with the model set forth by the Indian Self-Determination and Educational Assistance Act, which prioritizes Tribes' sovereignty over construction and governance of their own public services, including schools and hospitals.⁵⁶⁴ Agencies and White

House entities are also required to engage in co-management and co-stewardship contracts to enhance partnerships with Tribal governments when administering government funds.⁵⁶⁵ President Biden has also directed agencies to identify programs' unnecessary limitations on Tribal spending of federal funds, and identify how to mitigate Tribal governments' payments of non-federal cost shares.⁵⁶⁶

Through the efforts described above, the Biden administration and Congressional Democrats are working to reverse historic trends in inequitable distribution of federal funds and investment incentives. During this period of historic growth, President Biden's policies have focused on bringing along communities that were marginalized and excluded from past periods of U.S. economic growth. More work should be done to further include Territories in economic development efforts, and to support development in Sunbelt States and Tribal Nations. Still, the major legislative accomplishments that the Biden administration has been able to carry out mark a historic chapter in federal efforts to drive equitable growth. Through these policies, President Biden and Congressional Democrats are ensuring that the rising water of economic prosperity will lift all boats.

CHAPTER 5: SUPPORTING FAMILIES TODAY WHILE INVESTING IN TOMORROW

Policies that support working families as well as children at all stages of development often have significant, long-term benefits. As a result, these policies have a high return on investment, strengthening the overall economy. One example is the Child Tax Credit (CTC), a proven anti-poverty policy whose expansion was transformational for families during the pandemic. Another supportive policy is affordable early childhood education, which allows parents who need or want to work to do so, while also providing long-term benefits for their children. K-12 school meals and infrastructure are also investments that yield long-term benefits for students' health and academic outcomes. Additionally, proven youth employment programs can set up young people who are neither working nor in school with meaningful careers as they transition to adulthood.

The Child Tax Credit continues to provide essential support for millions of kids

Even after the expiration of the expanded CTC within the American Rescue Plan (ARP) of 2021, the program remains one of the nation's largest income support and anti-poverty programs. In 2022, the current version of the CTC and other tax credits helped lift 6.4 million people over the poverty line, the majority of those being children.⁵⁶⁷ The refundable portion of the credit alone lifted 2.4 million people, also mostly children, out of poverty.⁵⁶⁸ By comparison, in 2021 when these programs were boosted with expanded CTC provisions, 9.6 million people were lifted out of poverty, with the expanded refundable portion lifting 5.3 million.⁵⁶⁹

The expanded refundable Child Tax Credit from the American Rescue Plan was critical for families and an extremely effective tool to combat child poverty

The expanded CTC included in the 2021 ARP included the following changes: it raised the maximum credit from \$2,000 per child to \$3,000 for children over six years old and to \$3,600 for children under six; made the CTC fully refundable, meaning you can get it as a refund even if you don't owe taxes; and allowed for monthly payments, so families could receive the money at more frequent intervals instead of waiting for their tax returns.^{570,571}

This expanded version of the CTC cut the number of children in poverty nationally by half—with an especially large drop for Black and Hispanic children, bringing child poverty to a historic low of 5.2% in 2021.^{572,573}

The reduction in poverty helped reduce food insecurity and assisted families with rent, utility payments, and medical bills.^{574,575} A recent large-scale analysis found that counties where families gained the most additional income from the 2021 expansion of the credit also had higher sales at grocery stores, and saw an increase in visits to child care centers and spending on child-related items.⁵⁷⁶ Similarly, another analysis found that an increase of \$100 in CTC income during the 2021 expansion was associated with an increase of \$75 of spending, of which \$31 went to housing, \$28 to food, and \$7 to clothing, demonstrating families' ability to spend more on these necessities.⁵⁷⁷ Other research finds potential educational and health benefits for children, as well as a boost to their future earnings.⁵⁷⁸

Notably, several studies show the expansion did not meaningfully reduce the number of parents in the workforce in the short- nor long-term. Research into the employment effects of the increased

income families received found the expanded CTC had little impact on employment, despite critics' speculation that it might.^{579,580}

Though the expanded CTC has since expired, President Biden has proposed raising the credit back to its previous 2021 levels in his most recent Budget submitted to Congress. President Biden's proposal would also restore full refundability for the CTC as well as allowing advance monthly payments.⁵⁸¹

The current Child Tax Credit still provides essential relief and income support to working families

Though not as robust, the current structure of the CTC similarly helps families afford essentials and acts as an important anti-poverty program.^{582,583} The CTC allows filing taxpayers to claim, up to a total amount of \$2,000 per child under 17. This is then phased-out by 5% of income over \$200,000. A smaller portion of the total credit, currently up to \$1,600, is refundable and limited to 15% of income over \$2,500.⁵⁸⁴ While the amount of the credit that is fully refundable is scheduled to increase annually with inflation, the families of over 19 million children are still currently prevented from claiming the full level of the credit due to their low incomes.^{585,586}

Democrats' support for a targeted expansion of the CTC could help millions of children

This Congress, the House passed the Tax Relief for American Families and Workers Act, which pairs an expansion of the CTC with several corporate tax breaks. While not raising the overall credit amount, the bill would change the structure of the credit so the amount claimed would be per child and not based solely off the income level of the taxpayer.⁵⁸⁷

Though not as generous as the 2021 expansion, this change would allow low-income families with multiple children to claim a higher amount of the credit.⁵⁸⁸ According to one estimate from the Center on Budget and Policy Priorities, passage of the Tax Relief for American Families and Workers Act's credit boost would help almost 16 million children living under the poverty line.⁵⁸⁹

Improvements, not cuts, to the IRS would increase access to the CTC for all families

Over the last several decades, an increasing amount of important policy initiatives—including the CTC, Earned Income Tax Credit (EITC), and clean energy credits—are being accomplished through the tax code.⁵⁹⁰ It's important for Congress to ensure the IRS receives sufficient funding to carry out these policies efficiently and effectively to support families, the economy, and to combat climate change.

Conducting income support policy through the tax code also poses challenges for families whose incomes are often below the threshold where filing taxes is required. While these families would benefit most from CTC funds, they often have the least experience with our complicated tax system and are fearful of misfiling.^{591,592} The IRS is addressing this issue by utilizing Inflation Reduction Act funding to improve services that can help ensure taxpayers do not unintentionally submit incorrect tax returns.⁵⁹³ This includes the new Direct File pilot program, which is a free filing system for low-income people currently being tested in 12 states. With large investments in live customer support, the Direct File pilot will help filing taxpayers correctly claim the CTC and EITC.⁵⁹⁴ Additionally, outreach to families not experienced with the tax system, which the IRS undertook during the expanded CTC in 2021, proved successful in helping families receive their benefit and is essential for any new expansion of the CTC.⁵⁹⁵

Expanding the Child Tax Credit should be a priority investment

The ARP's CTC expansion was a successful experiment in social policy. A restoration of the expanded CTC now could easily replicate the immediate large reductions in child poverty and food insecurity observed during the pandemic years. Like many other investments in children, evidence shows the CTC could yield long-term positive results for children and their families, as well as the economy at large.

The many economic benefits of investing in early childhood education

The private early childhood education (ECE) market cannot meet the needs of every family. ECE is commonly used to refer to both child care and pre-K focused on kids younger than age five. States like New Mexico are already leading the way in providing accessible child care and pre-K to every family. However, because of the sector's inefficiencies, government funding for ECE is essential for the United States to reap its maximum economic benefits.

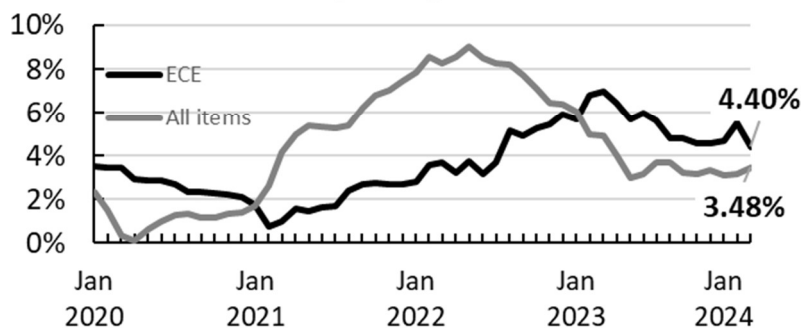
Skyrocketing costs of ECE limit families' ability to pay for necessities

Even before the pandemic exacerbated the industry's challenges, over half of people in the United States (51%), lived in a child care desert, or a census tract with either more than 50 children under age five with no licensed child care teacher or with more than three children for every child care slot.⁵⁹⁶ Though this does not include license-exempt child care (including family, friend, and neighbor), it reflects the industry's low supply that results in long waitlists.^{597,598,599}

The industry's low supply coincides with its high prices—with an average cost of \$11,582, or 10% of a married couple's income in 2023, despite the U.S. Department of Health and Human Services recommending no more than 7%.^{600,601} Furthermore, ECE prices are again rising faster than the prices of other items.⁶⁰² This means the cost is increasingly eating up larger shares of family income with a particular impact on those with low-incomes.⁶⁰³

ECE Price Growth Surpasses Overall Inflation

Annual CPI for day care and preschool and all items, all urban consumers, U.S. city average, 2020-2024



Source: Bureau of Labor Statistics.

When parents cannot find or afford care, they may be forced to work less or may be unable to focus on work when they otherwise would.⁶⁰⁴ This is particularly challenging for parents who may need to provide eldercare for other family members soon after having children: individuals ages 45 to 64 are most likely to provide eldercare.⁶⁰⁵

Some parents may also be providing child and eldercare at the same. This group is known as the sandwich generation, because they are in between two generations that require care.⁶⁰⁶ The Bureau of Labor Statistics finds 57% percent of eldercare providers who were parents of children living at home provided

care for their own parent.⁶⁰⁷ An aging population means these numbers are only going to continue to grow.⁶⁰⁸

Affordable and reliable ECE helps parents support their families and save for retirement; provides enormous benefits for children; and has additional economic benefits for teachers, businesses, and taxpayers

Though estimates vary in size, evidence shows that ECE can boost employment and earnings for parents who want or need to work, with the 2024 Economic Report of the President listing affordable child care as a policy targeting people who could be employed but are not for structural reasons.^{609,610,611} Access to care can also help them accrue larger benefits from employment-based retirement plans like 401ks and Social Security.^{612,613}

Studies also find that ECE helps improve students' academic and interpersonal skills, including through participation in the federal Head Start pre-K program.^{614,615,616}

ECE teaching positions generally offer low wages and have higher turnover, along with much less wage growth than other low-paid occupations.^{617,618,619} However, a study from the Council of Economic Advisers demonstrates how public investments like the Child Care Stabilization Funds can help raise wages.⁶²⁰ Other studies find benefits through employee retention and overall reduced crime and welfare spending.^{621,622}

Programs like the Child Tax Credit and other federal programs make ECE more affordable and help ensure maximum economic benefits

The CTC, discussed earlier in this chapter, assists parents with costs associated with raising a child.⁶²³ Other tax credits include the Child and Dependent Care and the 45F Tax Credit.⁶²⁴

However, the 45F Tax Credit is often underused, relies on businesses, and forces workers to stay with their employer to meet their care needs.⁶²⁵

The federal Child Care and Development Block Grant (CCDBG), part of the Child Care and Development Fund (CCDF), helps lower the cost of child care for low-income families. Though at its current funding levels, the program only assists less than 15% of eligible families.^{626,627} Fortunately, the Biden administration recently released a final rule for CCDF that helps lower costs for families, improve payments for teachers, increase options for families, and more efficiently processes enrollment.⁶²⁸

Head Start is an additional federal program through the U.S. Department of Health and Human Services that provides educational, social-emotional, health, and nutritional services to children up to age five and their families.⁶²⁹ To support Head Start, the Biden administration released a proposed rule to improve program quality and support its workforce.⁶³⁰ In Congress, there are bills like the 2023 Child Care Nutrition Enhancement Act that would increase reimbursement rates for meals for programs like Head Start through the federal Child and Adult Care Food Program.⁶³¹

The Biden administration is exploring other creative solutions to address the high cost of child care. The CHIPS and Science Act dictates certain grant recipients submit a plan to provide affordable child care for their workers—a provision that is already showing early promise.^{632,633} This administration also laid out steps to reduce child care costs for military families and announced new funding through the Small Business Administration.^{634,635}

ECE needs to be supplemented by other family-friendly work policies. This includes paid family, sick, and safe leave that affords

parents the opportunity to leave work in order to care for family members, go to doctor's appointments, or to stay safe if they are experiencing domestic violence without being penalized.⁶³⁶ Unfortunately, 73% of workers do not have paid family leave through their jobs despite its benefits and only 14 states have their own paid family and medical leave programs. This leaves the United States far behind its peer countries in this regard while imposing great costs on the economy.^{637,638}

Additionally, the 2024 Economic Report of the President highlights how women's reproductive autonomy is critical for not only their health and wellbeing but their ability to choose to participate in the labor market.⁶³⁹ The report also highlights the need to address the United States' alarming rates of infant and maternal mortality.⁶⁴⁰

State funding and programs can also move the needle

While state funds and programs are not enough to address a nationwide broken market, they are still important ways to support families and the economy. Eleven states and the District of Columbia have universal pre-K eligibility, meaning all four-year-olds are eligible to enroll in pre-K in that state. As of 2023, New Mexico and several other states are close to reaching that benchmark.^{641,642} Of the 12 mentioned earlier, four states and the District of Columbia have met the universal enrollment benchmark of 70% set by early education research and advocacy groups.⁶⁴³

New Mexico's approach to ECE focused on its state constitution to pull additional funds from its Land Grant Permanent Fund (LGPF) for investments in ECE.⁶⁴⁴ Because the LGPF was created by the federal government, it needed Congressional action to change, which was led by JEC Chairman Heinrich and Rep. Melanie Ann Stansbury of New Mexico.⁶⁴⁵

This transformative effort is on top of other efforts to streamline services and ensure funding for the child care industry, supported in part by federal dollars.^{646,647,648} New Mexico has also taken important steps to cut costs for families and recently created its own state-run CTC.^{649,650}

According to preliminary research from the University of New Mexico's Cradle to Career Policy Institute, the assistance helped parents in a myriad of ways including getting back to work and school, starting new businesses, and reducing their stress around finding care. It's also helped providers improve facilities, increase the quality of care, increase educator wages, increase the number of children in care, and hire more staff.

With food insecurity on the rise, Congress is supporting student nutrition—and the economy

Proper nutrition is critical for students in the short- and long-term, posing benefits for their health and academic outcomes and, thus, the broader economy. However, household food insecurity has been on the rise, including for households with children. In response, members of Congress have introduced pieces of legislation to expand or permanently authorize important programs for student nutrition.

More households were experiencing food insecurity in 2022 than during the pandemic

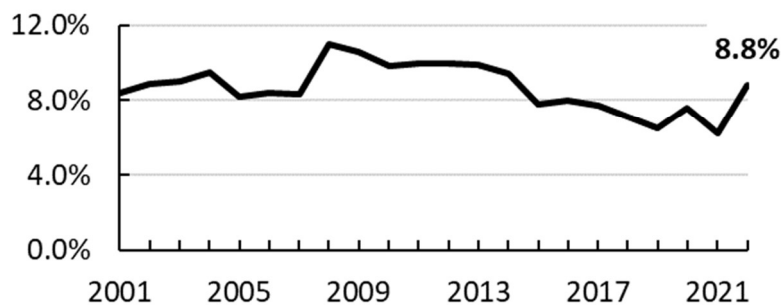
The U.S. Department of Agriculture (USDA) defines food-insecure households in 2022 as those that had difficulty at some time during the year providing sufficient food for all their family members due to a lack of resources.⁶⁵¹ The number of food-insecure households grew to 17 million—or 12.8%—of U.S. households in 2022, up from 13.5 million households in 2021 and

13.8 million in 2020. Household food insecurity also varies by state, ranging from 6.2% in New Hampshire to 16.6% in Arkansas between 2020 and 2022.

The number of households with children who were food insecure also rose in 2022: up to 3.3 million households (8.8% of U.S. households with children) from 2.3 million households in 2021 and 2.9 million households in 2020.

Children's Food Insecurity Is on the Rise

Share of households with children in which children are experiencing food insecurity, 2001-2022



Source: U.S. Department of Agriculture.

Non-Hispanic Black and Hispanic children are more likely to be living in food-insecure households than white, non-Hispanic children, with Black, non-Hispanic children being the most likely.⁶⁵² Children with disabilities are also more likely than those without to be living in food-insecure households.

School meals can support children's health and academic success as well as providing benefits for the economy

Ensuring children have enough to eat and proper nutrition is critical for their physical, cognitive, and social growth and well-being.⁶⁵³ For example, proper nutrition can help protect children from costly health conditions like anemia and asthma, oral health

problems, mental health disorders, stunted development, and hospitalizations.⁶⁵⁴

Additionally, K-12 students with higher grades are more likely to eat more regular and nutritious meals than students with lower grades.^{655,656} Studies also show that food security is associated with higher student attendance and helps improve their chances of graduating high school, setting them up for success in higher education and the workforce.^{657,658,659}

The National School Lunch Program (NSLP)—cash reimbursements from the federal government to help cover some or all of the cost of school lunches—is a key way to support children’s food security, providing meals to 30 million children on an average day.^{660,661} The program is proven to help reduce food insecurity, improve dietary intake, positively impact health and obesity rates, and helps create a better learning environment.⁶⁶²

A 2021 report found that the school meals program’s human health and economic benefits are more than double the cost of the program.⁶⁶³ Despite this, children in just 26.9% of food-insecure households received free or reduced-price school meals in 2022.⁶⁶⁴

Several federal government programs support student nutrition

The NSLP and the School Breakfast Program are the largest student nutrition programs. Other programs like the Child and Adult Care Food Program support students in child care, day care, and afterschool settings.⁶⁶⁵

The Summer Food Service Program and Seamless Summer Option help provide funding for summer meals and snacks. The Summer Electronic Benefit Transfer for Children (Summer EBT) Program

also helps cover groceries for households with school-age children over the summer.⁶⁶⁶

The Fresh Fruit and Vegetable Program helps provide fresh fruit and vegetables in elementary schools. Finally, the special Milk Program sponsors milk in schools that do not participate in the above programs.⁶⁶⁷

Congress is working to ensure more children access nutritious meals in school and on summer break

The Biden administration announced that nutrition standards for school meals would be updated to gradually reduce added sugars beginning in fall 2025.⁶⁶⁸ Additionally, the Healthy Meals Help Kids Learn Act introduced by JEC Chairman Heinrich would increase school meal reimbursement levels.⁶⁶⁹ A second bill introduced by Senators Heinrich, Sanders, and Gillibrand—the Universal School Meals Program Act—would make the program universal, saving families from having to navigate the burdensome application process and saving states money, while ensuring every student has access to a nutritional school lunch.^{670,671}

Congress also recently gave permanent authorization to the Summer EBT program. The program was piloted with several others beginning in 2010, with the Summer EBT program having the strongest evidence for reducing food insecurity and improving nutrition. 45 states, territories, and tribal nations are taking advantage of the program set to provide benefits in summer 2024.^{672,673,674}

Nutrition programs are good for students and the broader economy

Expanding and permanently authorizing student nutrition programs is important for students' health and futures. These

programs also benefit the broader economy by reducing medical costs and ensuring the future workforce can focus and complete their education.

School infrastructure investments are good for students and the environment

Research shows healthy and safe school environments help students focus and avoid illnesses, supporting their academic achievement and attendance. U.S. school buildings need improvements, and sustainability must be front and center when completing them. Schools can reduce their environmental footprint by transitioning to cleaner energy sources for buildings and buses. To aid schools and districts in these efforts, the Biden administration have made several sources of federal funding available.

Given the growing threat of climate change, improving school infrastructure is an important investment that will help improve student outcomes and save money down the line

Upgrading school buildings to be more resilient to climate change can also have positive health benefits for students. For example, one literature review found increased ventilation—improved air quality to help remove toxins—is associated with better student academic performance, less respiratory health issues, and less student absences.⁶⁷⁵ Natural light, comfortable classroom temperatures, and quality classroom acoustics can also improve students' ability to focus and learn.⁶⁷⁶

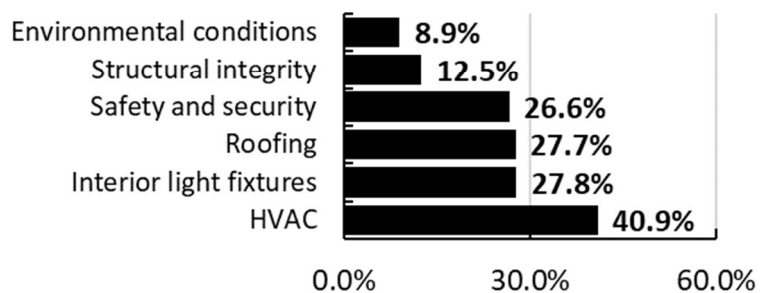
Improving U.S. school infrastructure is critical. A 2020 survey from the U.S. Government Accountability Office (GAO) found 41% of districts need to update or replace heating, ventilation, and air conditioning (HVAC) systems in at least half their schools.⁶⁷⁷ The average age of U.S. schools is 49 years, with 38% of schools

being built before 1970 and 53% never having gone through a major renovation.⁶⁷⁸ The importance of high-quality ventilation systems was no more apparent than during the COVID-19 pandemic, where ventilation was a key virus mitigation strategy.⁶⁷⁹ School infrastructure challenges are also more prevalent in underfunded schools and in schools serving Native students, Black students, and those in Puerto Rico.^{680,681}

Extreme weather events like hurricanes can also physically damage school buildings and are becoming increasingly common.⁶⁸² Yet, the GAO found nearly 13% of districts need to improve the structural integrity of at least half their schools.⁶⁸³ Additionally, extreme heat can create unsafe learning environments without proper air conditioning and force schools to close.⁶⁸⁴

HVAC Updates Are a Priority for School Districts

Estimated percentage of districts where at least half the schools need updates, selected options, 2020



Source: U.S. Government Accountability Office.

Sustainability can and should be prioritized with school infrastructure modernization

Given the growing threat of climate change and schools' environmental footprint, sustainability must be prioritized with

any infrastructure improvements. This can also help limit the environmental footprint of the nation's nearly 100,000 public K-12 schools, which represent 5% of commercial building energy consumption in the United States.⁶⁸⁵ Additionally, shifting to clean energy and increasing energy efficiency within schools can also be cost saving, as these schools currently spend over \$8 billion on utility bills.

To further reduce their environmental footprint, schools and districts can transition to electric school buses. With over 480,000 vehicles, school buses are the largest mass transit fleet in the country.⁶⁸⁶ During the 2019-20 school year, public K-12 schools in the United States spent nearly \$26.3 million on student transportation.⁶⁸⁷

Compared to diesel-powered ones, electric school buses have reduced tailpipe pollution, reduced greenhouse gas emissions, and potential for reduced fuel costs.⁶⁸⁸ Though electric school buses may have higher up-front costs because of the necessary infrastructure like charging stations, each bus saves an average of \$170,000 in maintenance and operation costs over its lifetime.⁶⁸⁹ Electric school buses also pose benefits for students, with the reduced pollution helping to improve their school attendance and academic achievement and protecting them from the harmful health effects caused by poor air quality.^{690,691}

The Biden administration is taking important steps to improve school infrastructure and increase its resilience

The 2022 Biden Action Plan for Building Better School Infrastructure detailed the federal government's actions to address this challenge, including leveraging money from the Bipartisan Infrastructure Law (BIL) and ARP to improve school infrastructure through the creation of a new \$500 million U.S.

Department of Energy (EPA) grant program called Renew America's Schools.^{692,693}

The BIL also provided funding for the EPAs' new Clean School Bus Program, which provides \$5 billion over five years to replace existing diesel school buses with zero-emission and low-emission models.⁶⁹⁴

In January 2024, the administration announced \$47 million in new funding through the U.S. Department of Education to further support school infrastructure improvements.⁶⁹⁵ The U.S. Department of Education also partners with other federal agencies to provide additional resources and financial relief for school modernization efforts.

States and districts also used their ARP Elementary and Secondary School Emergency Relief funds to improve facilities, including upgrading heating, ventilation, and air conditioning systems and doing repairs that prevent illness like lead abatement, removing mold and mildew, or replacing leaky roofs.⁶⁹⁶ \$350 billion in U.S. Department of the Treasury State and Local Fiscal Recovery Funds were also available for school improvements.⁶⁹⁷

Federal investments in school infrastructure improvements will have long-term benefits

When schools and districts take advantage of these funding opportunities, they're supporting their students and the environment. They are also ensuring school infrastructure will be in a better position to face the growing threat of climate change, and that students are able to attend school.

Youth employment programs can grow the economy, expand opportunity, and improve public safety

Young adults engaged in either work or school strengthen our communities and provide significant economic benefits. When policymakers invest in supporting *opportunity youth*—those between ages 16 and 24 who are neither in school nor working—the benefits are widespread and long term.

Expanding employment opportunities for opportunity youth—including through proven year-round and summer job training programs—can help improve work readiness, expand professional networks, boost earnings, improve public safety, and reduce interaction with the criminal justice system. Congress can invest in these programs through the reauthorization of the Workforce Innovation and Opportunity Act (WIOA) and other federal initiatives.

Supporting young people who are neither in school nor working can benefit the U.S. economy and society

In 2022, over 4.3 million young people ages 16 to 24 were opportunity youth, representing about 11% of people in that age group.^{698,699} Black, non-Hispanic; Native American; Native Hawaiian, Pacific Islander, and Hispanic youth were overrepresented among opportunity youth compared to those who are White, non-Hispanic or Asian American.⁷⁰⁰ Many opportunity youth have disabilities, are uninsured, are currently homeless, living in poverty, or are involved with the juvenile justice or child welfare systems.^{701,702,703}

Limited education or work experience results in downstream consequences. Research finds young people's unemployment can contribute to reduced earnings, social mobility, and

homeownership, spur future bouts of unemployment, and result in poor physical health.^{704,705,706,707,708}

People who are not working for pay do not contribute any income taxes, spend less in their local economies, and may need the support of government programs to afford necessities like health care. One study from 2012 found that after accounting for each of these costs and losses, each opportunity youth could cost society \$13,900 in that year—a likely underestimate given the age of the report.⁷⁰⁹

Failing to invest in opportunity youth can also be connected to higher crime rates, as one study found that 63% of crimes committed by young people were committed by those who were not in school or working.⁷¹⁰ Aside from the various negative impacts on young people, especially among Black and Hispanic youth, confinement costs alone were \$214,620 annually per youth in 2020.^{711,712,713}

Connecting young people with employment can boost earnings and augment professional development

Youth employment programs provide young people with job training and education that can streamline the skill development necessary for different career fields. For example, Year Up—a one-year training program focusing on professional development—saw participants’ average quarterly earnings increase compared to non-participants’ earnings.⁷¹⁴ This added income can relieve tight family budgets: another study found that half of program participants used a portion of their earnings to pay for one or more household bills.⁷¹⁵

Research also suggests that economic connectedness—the degree of interaction between people from different socio-economic

classes—is an important predictor of upward economic mobility.⁷¹⁶ Another study observed positive behavioral shifts in the youth accompanied by a greater likelihood to complete a resume and cover letter than a comparison group of non-participants.⁷¹⁷

Youth employment programs can reduce interaction with the criminal justice system

Alongside these direct economic benefits, youth employment programs can also play an important role in reducing criminal justice involvement among young adults. The Rapid Employment and Development Initiative (READI) program in Chicago provides both job training and therapy to the most at-risk young men in the community to address the root causes of gun violence.⁷¹⁸ Participants referred to the program by outreach workers were 43% less likely to be the victim of a violent crime and 79% less likely to be arrested for a shooting or a homicide compared to a control group.⁷¹⁹ Researchers estimate that the benefits of reduced criminal activity are four to 18 times the cost of the READI program, equating to between \$182,000 and \$916,000 saved per participant over the long run.

In a separate study analyzing the NYC Summer Youth Employment Program—the largest summer youth employment program in the country—researchers found that participation reduced the chances of both arrests and convictions.⁷²⁰ During the program summer, there was a 31% reduction in criminal conviction probability and a 38% reduction in felony conviction probability. Another study in Chicago observed a 43% reduction in violent crime arrests through the duration of the city’s program and 14 months afterward.⁷²¹

Reauthorizing and improving WIOA can support youth employment programs

WIOA is a major federal vehicle for state and local employment programs and can serve as an important funding source. State and local workforce boards should use these funds to implement evidence-based programs that increase economic mobility and improve outcomes for opportunity youth.⁷²²

In April 2024, House lawmakers overwhelmingly passed H.R. 6655, A Stronger Workforce for America Act.⁷²³ The bill would reauthorize WIOA, provide job training, and connect Americans with good paying jobs. Meanwhile, legislators in the Senate Committee on Health, Education, Labor and Pensions (HELP) are writing their own legislation and are expected to release bill text near the end of spring 2024.⁷²⁴

WIOA includes a myriad of programs that provide young people with paid and unpaid employment programs, pre-apprenticeship programs, career training, and other supports.^{725,726,727} WIOA Youth devotes 75% of its funds to opportunity youth and has helped participants enter school or training programs and connected them with good paying jobs after program completion.^{728,729}

While WIOA's authorization expired in 2020, Congress can further support the employment of young people by including subsidized wages for youth employment programs and the key investments in the Opening Doors for Youth Act of 2023 in a future reauthorization.^{730,731}

Outside of WIOA, a number of other federal programs can support young people

Investing in other federal grants and programs can also expand opportunities for young people. Among existing sources of funds and types of programming, support for youth can come from the Temporary Assistance for Needy Families (TANF) program, the Community Services Block Grant, AmeriCorps, and the newly created American Climate Corps among other government programs and school retention measures.^{732,733,734,735,736} These avenues uplift young people and foster equity to ensure the success of future generations.

CHAPTER 6: SUPPORTING WORKERS AND TAKING ON CORPORATE POWER

Democrats in Congress and the Biden administration are working to protect consumers and workers, increase competition and fight against corporate consolidation, and expand pathways to middle-class careers. A lack of competition across the U.S. economy hurts both consumers and workers. Beginning in 2021, large companies leveraged their market power during pandemic-driven supply chain issues to hike prices and rake in abnormally high profits, driving inflation over the last couple years and imposing higher costs on American households. At the same time, declining competition over many years has led to lower wages, poorer working conditions, and reduced mobility for workers. Democrats in Congress and the Biden administration have taken action to reign in anti-competitive practices, ban noncompete agreements, apply greater scrutiny to mergers, and increase options for consumers and workers alike. Additionally, registered apprenticeships provide pathways to stable, well-paying careers while addressing workforce shortages, and immigrants can keep the U.S. labor force growing and help boost economic output.

Democrats are taking on corporate greed and fighting for American families

Large companies have used their market power to accumulate profits by raising prices. These price hikes have played a detrimental role in driving inflation over the last couple years and resulted in persistently higher prices for American families.⁷³⁷ Data show price hikes came from big companies making abnormally high profits during the recent period of rapid inflation, driving up prices. Typically, company profits account for only 13% of price increases.⁷³⁸ However, between April 2020 and December 2021, company profits accounted for 54% of overall

price increases and remained above normal levels through 2022.⁷³⁹ The rise in profits was greatest for the largest companies, whose margins surged and remained high following April 2020.⁷⁴⁰

Beginning in 2021, corporations raised prices well beyond what was needed to cover their increased costs, ratcheting up their profits

While American families struggled with rapidly rising prices in 2021, corporate CEOs and shareholders realized surging profits.^{741,742} In many cases, companies raised prices well beyond what was necessary to cover their costs—taking hard-earned money away from American families.⁷⁴³ Several CEOs even touted this to their investors, showcasing how unnecessary price increases directly benefited their companies, often using inflation as an excuse.⁷⁴⁴ In 2023, large corporations were still increasing prices on families, even while they recorded months of heightened profits.^{745,746}

Market power and corporate concentration enabled companies to hike prices as high as they did during the pandemic

Economists and policymakers have called out how corporations with historic market power seized on the pandemic and post-pandemic economy to rake in profits at the expense of families.^{747,748} In recent years, large companies have increasingly carried out mergers—when two or more companies combine into one larger company—and acquisitions—when one company buys another. If these companies sell similar goods, families are left with fewer options to choose from when they are shopping around for the best price. By reducing competition, CEOs have greater ability to force increased prices on families with few to no alternatives.

Studies have shown that since the 1970s, fewer companies have been participating in U.S. industries overall due to mergers and acquisitions.⁷⁴⁹ The number of small companies has declined, and just a few big companies now dominate many markets. This overall trend is known as corporate concentration. Companies in industries with greater concentration can utilize increased market power to more brazenly pass higher production costs onto consumers, using inflation as an excuse to gain higher profits.⁷⁵⁰ One study from the Federal Reserve Bank of Boston found that companies are more likely to pass increased production costs onto consumers in concentrated industries.⁷⁵¹ A recent Federal Reserve study also showed that profit margins remained highest among the largest companies following the pandemic.⁷⁵²

Companies with significant market power kept prices high for families while supply shocks have receded

Consolidation is especially harmful when it drives up the costs of essential goods like food and diapers.⁷⁵³ In these cases, families have no choice but to buy these everyday necessities, even as higher prices are forced on them. As of 2018, just four firms controlled 55-85% of the U.S. market for poultry, pork, and beef—giving them significant power over both consumer prices and the prices that ranchers and farmers are paid for their products. Meat price increases alone accounted for half of the increase in food prices at places like grocery stores between December 2020 and September 2021.⁷⁵⁴

Elevated prices for groceries and other essential items particularly hurt low- and middle-income households who spend more of their family budgets on essential goods.⁷⁵⁵ While overall inflation has come down, grocery stores' profit margins have continued to rise.⁷⁵⁶ CEOs and large shareholders appear to be doing everything in their power to keep prices high. For example, companies have

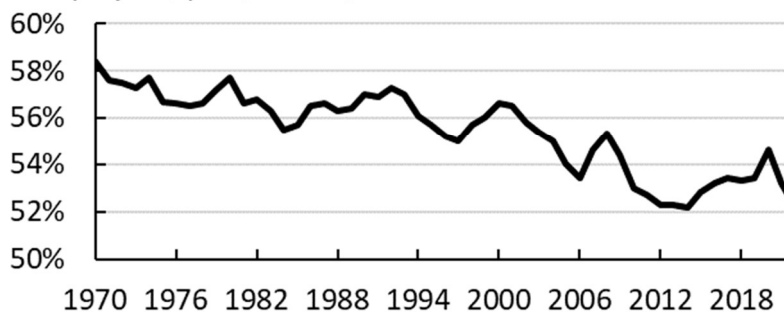
been more frequently experimenting with how much people are willing to pay for goods, pushing up prices as much as they can while monitoring sales data to maintain higher profits.⁷⁵⁷ This is particularly punishing on families buying products in sectors where consumers have only a small number of large brands from which to choose.

Increased corporate concentration has also harmed workers

As corporate concentration has increased over the last several decades, workers have received a shrinking share of overall income. Between 1978 and 2021, the average worker's compensation grew by just 18.1%, while CEO compensation grew by 1,460%. In 1965, the ratio of CEO-to-typical worker compensation was 20-to-1.⁷⁵⁸ By 2021, it stood at a shocking 399-to-1. Workers' output per hour has grown more than four times as much as pay since the late 1970s, but workers' share of national income has steadily declined.⁷⁵⁹

The Labor Share of Income Has Declined

Shares of gross domestic income: Compensation of employees, paid, annual, 1970-2022



Source: Bureau of Economic Analysis, Federal Reserve Economic Data.
Note: Shares are calculated annually.

Increasing corporate concentration has been shown to suppress workers' earnings. Research has shown that when a worker's company is bought by another company, they are more likely to

lose their job and will have lower income prospects in the future.⁷⁶⁰ Additionally, the use of noncompete agreements and the reduction in the number of companies available to offer jobs have depressed workers' ability to negotiate for higher wages or move to a higher-paying company.^{761,762} While the strong post-pandemic labor market has helped many lower-paid workers change jobs and earn higher wages, they are still at a disadvantage in many industries due to increased corporate concentration.

Large companies have also increased their power by continuing to dismantle and block worker unionization.^{763,764,765} In 1950, more than 30% of the workforce was unionized and powerful labor unions helped ensure that workers shared in the benefits of growth.^{766,767} However, union participation began to decline in the 1970s as employers across sectors ramped up their efforts to combat unions and organizing efforts. These efforts were emboldened by legal changes that restricted workers' rights and tipped the playing field against them.⁷⁶⁸

Democrats are fighting back against the harmful effects of increasing corporate concentration on both American workers and American families

From early on, President Biden and his administration recognized the need to address corporate concentration and curb large companies' power. The administration has challenged companies that suppress competition, especially those in industries selling essential products to American families.⁷⁶⁹ As food prices rose, the Biden administration worked with state attorneys general to take on anti-competitive practices in U.S. food supply chains, and invested in smaller producers to counter price-raising corporate concentration in the meatpacking industry.^{770,771,772} In addition to fighting corporate consolidation in the food and grocery industry,

they have taken on big companies in health care, banking, home mortgage services, energy, and big tech.^{773,774,775}

Democrats recognize that workers' rights must be protected in the face of growing corporate power. That's why Congressional Democrats, including JEC Chairman Heinrich, are working to pass the Protecting the Right to Organize (PRO) Act, which would bar companies from a range of union-busting activities and empower workers.⁷⁷⁶ President Biden and Congressional Democrats also passed the Bipartisan Infrastructure Law, the CHIPS and Science Act, and the Inflation Reduction Act, which protect workers' wages and include pro-union provisions.

A more competitive labor market will empower workers and help build a stronger economy

Where labor market competition is low, employers have less incentive to offer more attractive wages, working conditions, and benefits—to the detriment of both workers and the U.S. economy. Over the past three years, the Biden administration has taken historic actions to empower workers and increase competition in U.S. labor markets. By supporting and building on these efforts, Congress can help ensure continued progress towards a more just and efficient economy.

Labor market competition has a significant impact on workers' wages, benefits, and working conditions, as well as the broader economy

A lack of competition in labor markets grants employers market (or *wage-setting*) power, allowing them to offer lower wages and less attractive working conditions in the same way that a lack of competition in product markets allows firms to raise prices.⁷⁷⁷ High labor market concentration, in which only a small number of employers exist in a given area or specialty, is one factor that can

affect competition. However, labor market competition is also limited by other factors that prevent workers from seeking and finding other employment. These include collusion among employers, noncompete agreements, licensing requirements, reliance on employer-sponsored health care, search costs, housing prices, and information asymmetries.^{778,779,780}

Studies have shown that workers in less competitive labor markets earn lower wages, experience worse working conditions, and receive fewer benefits.^{781,782} Women and workers of color are most greatly impacted, as they generally face higher constraints with respect to job switching, negotiating, and enforcing their rights in the workplace.^{783,784}

Labor market competition is also important to productivity and growth, as insufficient competition for workers can disincentivize firms from making productivity-enhancing investments. Scholars have also theorized that more competitive labor markets can increase productivity by driving a reallocation of workers from less productive to more productive firms.⁷⁸⁵ Finally, limitations on workers' mobility, such as noncompete agreements, can stymie growth by inhibiting business formation and innovation.⁷⁸⁶

Recent years have seen growing concerns about competition in U.S. labor markets

In recent years, a growing number of researchers and policymakers have drawn attention to the state of competition in U.S. labor markets and its negative impacts.⁷⁸⁷ Recent research suggests that competition is limited in many U.S. labor markets, suppressing workers' wages and the economy's potential.⁷⁸⁸ Since the late 1990s, concentration has increased in more than 75% of U.S. industries.⁷⁸⁹ Recent studies of U.S. labor markets have found them to be highly concentrated, particularly in rural areas, with

20% of today's U.S. workforce in a labor market characterized by minimal outside options.^{790,791} An estimated one-in-five American workers is also bound by a noncompete agreement, restricting their ability to seek outside employment and start a business.⁷⁹² These and other job market frictions, such as housing costs, may explain the decline in labor market dynamism over time.⁷⁹³ Between 1997 and 2013, the rate at which people moved from one job to another declined by over 25%.⁷⁹⁴ Workers have also become less geographically mobile over time, with the percentage of people moving for a new job declining significantly since the 1980s.⁷⁹⁵

The effects of consolidation and anti-competitive actions by employers in specific sectors, such as health care, have also received greater scrutiny in recent years. The health care industry is highly concentrated and workers in the industry typically have specialized skills, giving employers a high degree of wage-setting power.⁷⁹⁶ Research has shown that mergers in the industry that further increased concentration reduced wage growth for workers.⁷⁹⁷ Both the health care and technology sectors have also seen significant litigation in recent years concerning collusion among employers to suppress wages, which is easier for firms to achieve where there are fewer employers in a market.^{798,799} These and other developments have led policymakers and scholars to call for more expansive antitrust enforcement that takes into consideration the effects of mergers on both workers and consumers.^{800,801}

The Biden administration has taken historic measures to level the playing field between workers and employers

Early in his term, President Biden signed an executive order to address declining competition throughout the U.S. economy, including in labor markets.⁸⁰² Over the last three years, the

administration has taken a number of historic measures to empower workers and increase labor market competition in the United States, such as banning noncompete agreements and raising the minimum wage for federal workers and contractors.^{803,804} The administration has also presided over a notable revival in antitrust enforcement.⁸⁰⁵ In 2022, federal regulators filed the most merger enforcement actions since 1976, when the United States first started requiring pre-merger antitrust reviews.⁸⁰⁶

Going forward, antitrust enforcement will play an important role in increasing labor market competition. In December 2023, the Federal Trade Commission (FTC) and U.S. Department of Justice (DOJ) finalized new Merger Guidelines, the result of a two-year effort.⁸⁰⁷ This represented a major shift in antitrust policy, reversing the relaxation of antitrust standards enacted by the Reagan administration in 1982.^{808,809} In addition, for the first time ever, the guidelines explicitly direct enforcers to consider the harms that proposed mergers pose to workers and labor markets. Since then, the FTC has already invoked likely reductions in labor market competition as part of its challenges to two proposed mergers, involving grocery chains Kroger and Albertsons and fashion brands Tapestry and Capri.^{810,811}

Congress has an important role to play in supporting and complementing these efforts to empower workers and increase labor market competition. The Biden administration has previously called on Congress to pass the Protecting the Right to Organize (PRO) Act, as well as legislation increasing the minimum wage.⁸¹² These policies are vital to further increasing the bargaining power of workers and counteracting the negative impacts of concentration. Additional funding for antitrust enforcement is also critical, as regulators face stiff legal opposition

from corporations.⁸¹³ Finally, the administration's decisions to ban noncompete agreements and raise the minimum wage for federal workers both currently face legal challenges by businesses and Republican states—if overturned, Congress should work to pass legislation to restore them and protect the interests of American workers.^{814,815}

As pathways to the middle class, registered apprenticeships can scale up America's workforce

Registered apprenticeship programs (RAs) are partnerships between employers, unions, educational institutions, and the federal government that provide paid employment, on-the-job training, and classroom learning for many skilled careers. These programs offer clear pathways to careers that do not require a traditional four-year college degree and enable people to support a family. Democrats in Congress and the Biden administration have boosted demand for these roles through investments in infrastructure, semiconductor manufacturing, and the clean-energy transition.

Registered apprenticeships have benefits for workers and employers

In response to the National Apprenticeships Act of 1937, the U.S. Department of Labor (DOL) created the Registered Apprenticeship Program to help set labor standards for workers in apprenticeship programs.^{816,817} Apprenticeship programs can register through the national program or a DOL-recognized state apprenticeship agency.⁸¹⁸ Pre-apprenticeships (PAs) help set young people up for success in RA programs.⁸¹⁹

One of the DOL's standards is a schedule of progressively increasing wages for RAs where the entry wage must be above the federal minimum wage, or even higher in some cases if required

by another federal or state law or collective bargaining agreement (46% of currently active RAs are unionized).^{820,821} These positions can also help connect workers with unionized positions in the future, which can help them access higher wages, more workplace benefits, and more reliable work schedules, while helping to close gender and race wage gaps.^{822,823} RAs earn wages while training when they otherwise may not, and studies show their wage growth typically outpaces that of comparable workers while also often leading to a full-time position in a high-demand industry.^{824,825}

Employers see both direct (output and reduced hiring costs) and indirect (employee retention, enhanced worker pipeline, and company culture) benefits from RA programs, especially after the apprentice has completed their training.⁸²⁶ One study found these benefits amount to between \$25,000 and \$30,000 per RA, representing a 44.3% return on investment.⁸²⁷

Expanding and employing registered apprentices can help address persistent workforce shortages in industries like health care and child care

Among other requirements, RAs can only be used in industries where skills are learned in a practical way and are clearly identified and commonly recognized throughout the industry.⁸²⁸ RAs can help address persistent workforce shortages in these qualified industries, like health care and child care, by training both new and existing workers.

The United States is facing a nationwide health care worker shortage, especially in rural communities.⁸²⁹ Yet, less than 4% of active RAs with specific industries are in the health care and social assistance industry, and many are in low-wage occupations within the industry.^{830,831} Expanding these programs can help address

worker shortages and ensure RAs are working in high-wage occupations.

Because of persistently low wages and limited wage growth, and because the industry was particularly hard-hit by the pandemic and faced a slow recovery, there are expected to be over 150,000 child care job openings annually over the next decade.^{832,833} Over 13% of active RAs with specified industries are in educational services more broadly, and several states are using federal funding to expand early childhood education apprenticeship programs in order to expand the industry's workforce pipeline.^{834,835,836}

To fulfill the historic projected increase in demand for skilled workers, policymakers can expand investment in well-established registered apprenticeships

Investments in the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) have increased the demand for workers who can fill roles in a range of clean-energy occupations, from manufacturing workers building wind turbines or solar panels to HVAC installers setting up heat pumps.⁸³⁷ The BIL, IRA, and CHIPS and Science Act are also driving investment in domestic manufacturing.⁸³⁸

RAs are already common in the construction industry but have a smaller presence in the manufacturing industry.⁸³⁹ The growing demand for clean energy workers means that RA programs should create more training slots for roles crucial to the energy transition, like electricians, pipefitters, and water treatment specialists.⁸⁴⁰ Importantly, the IRA requires some grant recipients to employ RAs for a certain number of hours and pay them at least a prevailing wage.^{841,842} This can help train new workers and retrain other workers who were previously working in fossil fuel industries.⁸⁴³

Wraparound services and pay equity can help women and workers of color enter registered apprenticeship programs and their related industries

Most registered apprentices are male (over 84%) and white (nearly 61%).⁸⁴⁴ However, some industries face even greater disparities. For example, over 93% of RAs in construction and manufacturing—industries that are currently booming—are male, and nearly 69% are white.⁸⁴⁵ Diversifying and strengthening RAs can also help do so in the industries they lead to. This includes the clean-energy industry, where women make up only 26% of the workforce (compared to 47% of the overall U.S. workforce) and Black workers make up only 9% of the workforce (compared to 13% of the overall U.S. workforce).^{846,847}

There are also pay disparities within RA programs. The median hourly wage for women who completed RAs was only 65% of the wage of their male counterparts (\$22.00/hour compared to \$34.07/hour).⁸⁴⁸ Addressing pay inequities and providing wraparound services like child care to remove barriers can help strengthen worker pipelines. Federal funding from DOL's Women in Apprenticeship and Nontraditional Occupations grant program can help support these efforts.⁸⁴⁹

Expanding registered apprenticeships and pre-apprenticeships are critical for meeting unmet labor demand

Bipartisan bills introduced by JEC Chairman Heinrich, like the Apprenticeships Pathways Act and the Pre-Apprenticeships to Hardhats Act, would expand access to apprenticeship and pre-apprenticeship programs, strengthen career pipelines for workers across the country, and address workforce shortages in important industries. The Apprenticeships Pathways Act would support workforce intermediaries who connect employers and secondary schools to establish RAs, creating more career pathways for high

school students.⁸⁵⁰ Pre-apprenticeship programs would provide students with early exposure to industries and on-the-job training, while also working to fill occupations that need workers, including the building trades, health care, manufacturing, and early childhood education. The Pre-Apprenticeships to Hardhats Act would help expand access to pre-apprenticeship programs by awarding grants to organizations including employers, unions, and schools that equip workers with the skills and competencies necessary for registered apprenticeship programs in the building trades.⁸⁵¹ These pre-apprenticeship programs include everything from basic literacy and math to work-readiness skills.

Restricting legal immigration hurts the U.S. economy

Immigration policy is both a reflection of America's values and a key factor that shapes our long-term economic outlook. As population growth slows in the United States due to an aging population and fewer births, continued immigration is crucial to growing the labor force and boosting economic output.

Continued immigration is crucial to keeping the U.S. economy and labor force growing

Immigrants can help keep the U.S. population growing, which will expand the labor force, boost productivity, and power economic growth. The total fertility rate in the United States fell to 1.62 births per woman in 2023, a rate not seen since the federal government began tracking the metric in the 1930s.⁸⁵² If the United States does not reach and maintain a 2.1 fertility rate, the total population will be at risk of shrinking.⁸⁵³ Immigration is an important remedy to counteract this trend. Immigration is projected to be the primary driver of population growth for the United States by 2030, overtaking natural increases in the U.S.

population—the excess of births over deaths—because of population aging.⁸⁵⁴

The immigrant share of the labor force reached a record high of 18.6% in 2023, according to an Economic Policy Institute analysis.⁸⁵⁵ Immigration rates fell under the Trump administration and because of the COVID-19 pandemic, but data show that immigrants helped fill job openings earlier in the pandemic and helped sustain continued job growth in 2022 and 2023. Between January 2020 and May 2024, the number of foreign-born workers grew by 14%, while the number of native-born workers grew by less than 1%.^{856,857} Immigrants have played an outsized role in the expansion of the labor force since 2019.⁸⁵⁸ Without immigration, the U.S. labor supply would have decreased by 1.2 million people since 2019.⁸⁵⁹ Instead, immigration helped expand the labor supply by two million people.⁸⁶⁰

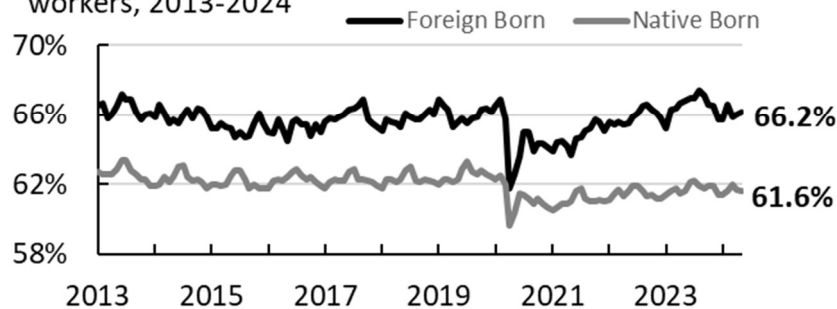
Recent estimates from the Congressional Budget Office approximate that net migration in calendar year 2023 was 3.3 million people—much higher than previously projected and well above the average of 900,000 people per year from 2010 to 2019.⁸⁶¹ In an analysis of these updated estimates, the Hamilton Project projects that the recent uptick contributed \$48 billion to personal income and \$46 billion to consumer spending in 2023. These estimates are expected to surge in 2024 when immigration will be directly responsible for \$76 billion in personal income and \$73 billion in consumer spending.⁸⁶² Other research suggests that immigration is responsible for at least a fifth of the 8.2% real GDP growth since the end of 2019.⁸⁶³ As slower population growth and an aging population reduce overall labor force participation, Congress and the Biden administration should implement thoughtful, effective, and humane immigration policy to grow the labor force.^{864,865}

Immigrants participate in the labor force at higher levels than the native-born population

Foreign-born residents are more likely to participate in the labor force and be of prime working age (between ages 25 and 54) than native-born Americans.⁸⁶⁶ In May 2024, the labor force participation rate of foreign-born workers (66.2%) was more than four and a half percentage points higher than that of native-born workers (61.6%).⁸⁶⁷

Immigrants Are More Likely to Participate in the Labor Force Than Native-Born Americans

Labor force participation rate for foreign- and native-born workers, 2013-2024



Source: Bureau of Labor Statistics

Note: Data are not seasonally adjusted and refer to the population age

Foreign-born men have a particularly higher labor force participation rate (77.2%) than native-born men (65.6%), whose labor force participation has been consistently trending downward in recent years as that population grows older.^{868,869} Additionally, the unemployment rate for foreign-born workers matched that of native-born workers in 2023 at 3.6%.⁸⁷⁰

Immigrants are more likely to start businesses and boost job growth

Immigrants have a high propensity for entrepreneurship as they are more likely to start both small and large businesses than their

native-born peers.⁸⁷¹ While immigrants make up about 14% of the U.S. population, they represent about a fifth of the self-employed workforce and account for a quarter of start-up founders.⁸⁷² Many immigrants find success in their entrepreneurial pursuits: 55% of the companies valued at or above \$1 billion in the United States were founded by immigrants and more than 40% of the Fortune 500 companies in 2021 were founded by an immigrant or the child of an immigrant.^{873,874}

Immigrants are also more likely to work jobs that have a job-multiplier effect, meaning that their employment facilitates the entry of other workers into the labor force.⁸⁷⁵ Workers in sectors like education and health services, where immigrants make up about 1 in 5 workers, help caregivers of all backgrounds enter the labor force and grow the economy.⁸⁷⁶ This is particularly true for women, who perform a disproportionate share of unpaid care work.

Immigrants pay their fair share in taxes and can help secure the future of key government programs

Increased immigration would help preserve Social Security, and immigration reform could help extend Medicare solvency.^{877,878} Immigrants tend to be younger, and with their high labor force participation, they pay taxes into Social Security and Medicare with most not receiving benefits until many years in the future, if they are eligible. Between 2012 and 2018, immigrants contributed \$166 more per capita, on average, to the Medicare Trust Fund each year than what was spent on their behalf.⁸⁷⁹ On the other hand, Medicare spent more on native-born Americans than they contributed with an average cost of \$51 per capita.⁸⁸⁰

Restricting legal immigration would exacerbate the impact of the country's projected population declines on publicly funded

programs, as immigrants contribute to the fiscal soundness of the country and its most important social programs.⁸⁸¹ One study found that Trump administration policies reduced the number of refugees by 86% from 2017 to 2020, which cost the U.S. economy an estimated \$9.1 billion per year.^{882,883} This is because each refugee adds significantly more to the U.S. economy through tax revenue and expanded economic activity than the costs of their initial resettlement. In 2021, immigrants had a spending power of \$1.4 trillion, and they collectively paid \$525 billion in local, state, and federal taxes.⁸⁸⁴ Immigrants contribute to many social programs with their taxes, despite being ineligible to receive many government benefits.

CHAPTER 7: REBUILDING THE AMERICAN DREAM AND ENHANCING HOUSING AFFORDABILITY IN THE UNITED STATES

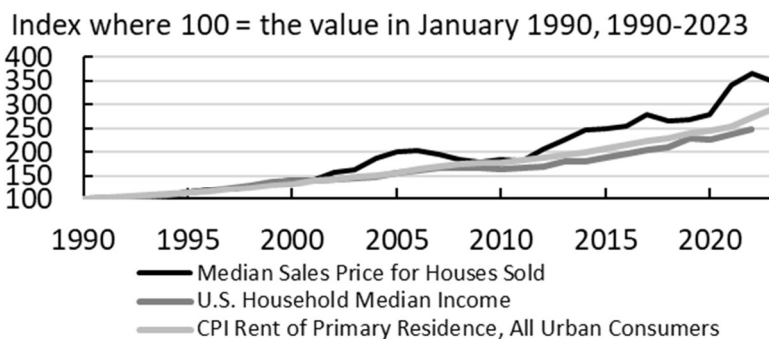
A strong U.S. middle class depends on families having the opportunity to buy a home, build wealth, and pass it on to the next generation. Moreover, research has shown that when low-income families move to stable homes in neighborhoods with a range of family incomes, their young children's future earnings and life outcomes improve significantly.^{885,886} Broad access to affordable and stable housing helps ensure Americans' economic well-being and mobility. However, the current housing shortage limits Americans' ability to access this next step.

Currently, low- and middle-income households are struggling to secure affordable housing. Homeownership is out of reach for many middle-class Americans, rents have been climbing over the past decade, and many lower-income families are being priced out of their current neighborhoods.^{887,888,889} Meanwhile, these families are blocked from renting in higher income neighborhoods due to absence of smaller, more affordable housing options and housing discrimination.

The United States has arrived at this moment after decades of exclusionary zoning and land use regulations that have limited housing choice and supply. Fortunately, states and localities across the country have been actively working to reverse this history, taking action to modernize their land use and zoning rules and enact new policies that create more housing that is accessible to a wider array of income levels. In addition to increasing the number of good paying jobs and establishing full funding for housing vouchers, both of which are vital to ensuring stable housing, efforts to increase supply can help to relieve economic and

housing capacity pressures from the housing shortage. Policy changes occurring across the country can serve as test cases for enhancing housing affordability and provide guidance for federal efforts to increase housing stock, while enhancing economic freedom.

U.S. Growth in Housing Prices Has Outpaced Growth in Median Income



Source: Census Bureau, U.S. Department of Housing and Urban Development, and Bureau of Labor Statistics

Note: January 2023 data for median household income are not yet available.

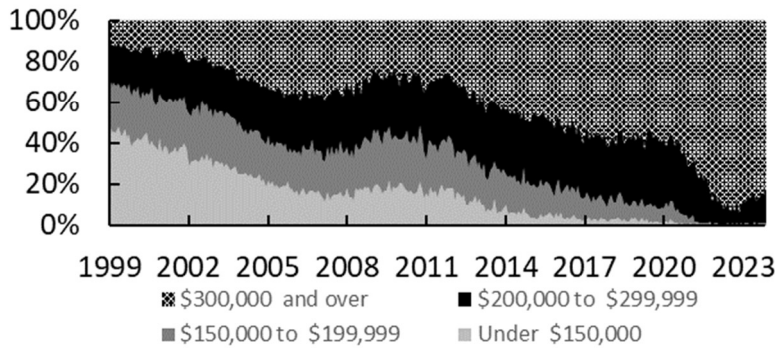
Removing barriers to housing supply can enhance affordability

Increasing housing supply to meet demand can help reduce growth in prices

The United States is facing a housing affordability crisis driven in large part by inadequate housing supply. After the housing market collapse in 2008, new housing supply for single- and multi-unit buildings declined.⁸⁹⁰ Yet, as demand recovered, supply did not.⁸⁹¹ Building on this crisis, in the wake of the pandemic the number of housing units available for purchase or for rent fell to near record lows.⁸⁹² In 2021, Freddie Mac estimated that the shortage of newly-built homes was about 3.8 million, noting that entry-level starter home construction has fallen since the 1970s.⁸⁹³

Few Homes Are Constructed at Affordable Prices for Middle-Class Families

Percentage of new homes sold in the United States by sales price, 1999-2023



Source: Census Bureau and U.S. Department of Housing and Urban Development.

More housing supply will make first-time homes more affordable and will relieve some upward pressures on rents

The housing shortage is impacting affordability for renters and prospective homeowners alike. For example, in 2022 those earning at or below U.S. median income could only afford to own 20% of all homes on the market, down from about 50% in 2016.⁸⁹⁴ Additionally, as the Council of Economic Advisers wrote in 2021, “across the country, more than 10 million renters (one in four) pay more than half of their income on rent, and nearly half (47%) spend over the recommended 30% of their income on rent and utilities.”⁸⁹⁵ Research has shown that an increase in supply of housing stock can alleviate this upward pressure on home prices and help ensure that more affordable options are available to average Americans.⁸⁹⁶

Increasing housing supply alone will not be enough to drive down rents, absent of renter-focused policies

Just increasing housing supply will not be enough to increase housing affordability for renters. For example, construction of new buildings in lower-income areas could lead to unaffordable prices for current residents, who are likely living in older housing stock that is cheaper than newly-constructed housing.⁸⁹⁷ Absent any other policy changes, this could mean that new, wealthier residents would move into the new units, while lower-income renters would still face a housing shortage and the potential for displacement. Rising home values would also increase wealth for current homeowners, but renters could be harmed under these circumstances. Increasing affordable housing for renters is key to resolving the housing crisis, given that about half of all renters are housing-cost burdened as of 2022, paying over 30% of their income on rent.⁸⁹⁸

Government subsidies can be helpful to ensure families are able to afford housing costs. For example, there is a growing recognition that governments need to directly address the shortage of affordable housing instead of exclusively subsidizing demand for privately-built and operated housing units. The Low-Income Housing Tax Credit (LIHTC) is a primary way that federal and state governments help finance new buildings with affordable rental units, but the program is oversubscribed and in need of reform to ensure it reaches those most in need.^{899,900,901} The bipartisan Affordable Housing Tax Credit Improvement Act would increase the number of available credits to better meet demand while changing the program rules to make sure that more units are built to serve Tribal communities, rural areas, and other at-risk and underserved groups.⁹⁰² State-level requirements for a minimum threshold of affordable housing per municipality, as is required in Massachusetts, could also be useful among other tools

used to increase the number of affordable units. Without these mechanisms, prices for housing available to low-income families will likely remain elevated.⁹⁰³

Zoning and land use regulations are maintaining regressive barriers to housing choice and stability

Exclusionary zoning limited housing supply and left a legacy of unequal opportunity

Historically, the federal government has given local governments the authority to set land use rules, while also acting as a guiding hand for what land use policy should look like throughout the country. While land use laws existed in years prior, a notable wave of state legislation gave municipalities zoning authority and established local planning boards in the 1910s.^{904,905} Then in the 1920s, the U.S. Department of Commerce (DOC) under Secretary Herbert Hoover issued guidance for legislative language for states to establish zoning authorities for general municipalities and cities.^{906,907,908} Researchers note that the DOC drafted this legislative language in order to provide a framework that minimized legal challenges to municipal zoning.⁹⁰⁹ Over time, all 50 states and the District of Columbia adopted a form of these guidelines, and the American Planning Association found that many states continue to use laws based on these restrictive models today.^{910,911}

Following these actions, restrictions on where people could live and the types of housing they could live in, laid the groundwork for the housing challenges the country faces today. For example, the boom in single-family detached housing developments in the 1940s, 50s, and 60s coincided with a massive increase in homeownership.^{912,913} Yet the neighborhoods developed in this era were initially closed to families of color due to the public and the

private sectors' discriminatory practices.^{914,915,916,917} While the Fair Housing Act outlawed many of these practices in 1968, land use and zoning restrictions perpetuated inequality in housing access while maintaining the status quo of neighborhood segregation.⁹¹⁸ For example, municipal governments enacted laws to rezone multiple residential neighborhoods for commercial use or construction of new highways, projects which were also funded by the federal government.^{919,920,921,922} These neighborhoods were primarily home to lower- and middle-income families and communities of color. Meanwhile, wealthier localities blocked new housing construction in neighborhoods with single-detached homes—the primary form of housing at the time—with new zoning and land use regulations.^{923,924} Taken together, such practices, through their legacy or continued use have played a large role in preventing economic and racial integration in many American neighborhoods, and in creating additional barriers to housing stability for more Americans.^{925,926,927}

Land use restrictions limit housing choice and economic freedom

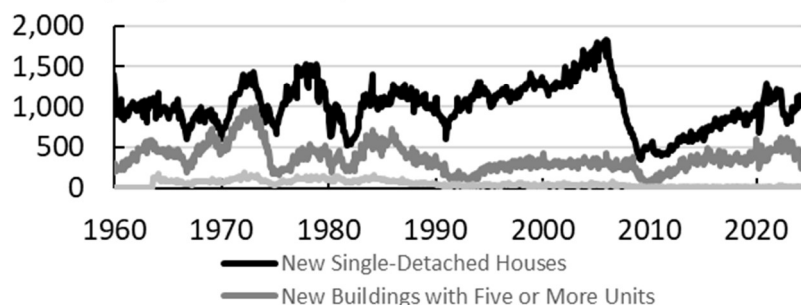
While increasing housing stock can help relieve the affordability crisis, zoning and land use regulations that mandate how land can be developed often actively prevent much-needed new housing construction.⁹²⁸ Many of these laws, which are implemented at the local or state level, directly restrict the number of units that a structure can have or limit the size of structures through restrictions on square-footage, lot size, or height. These rules often mean that a single-detached home is the only type of housing that is legal to build in these areas. Meanwhile, other zoning and land use laws block construction of new housing altogether.

Many of these laws limit choice in housing type and location by barring construction of more affordable options like townhouses, duplexes, and smaller apartment buildings in favor of standalone

single-family houses on larger lots. These mid-sized buildings, which can house between two to four families on a single lot, are still rarely built, with developers mainly favoring single-detached houses or to a lesser extent, larger apartment buildings. Such restrictions on housing choice continue to place limits on who can afford to rent or purchase a home based on their income level.

The United States Is Under-Producing Mid-Sized and Multi-Unit Housing

New privately-owned housing units starting construction each year, in thousands, 1959-2024



Source: Census Bureau and U.S. Department of Housing and Urban Development.

Restrictions that limit where people can live have been found to harm the wider economy. Often, lower-income workers live further from job centers, in large part because housing in job-rich areas is too expensive for them to afford.^{929,930} In addition to impacting one's job and income prospects, a person's neighborhood often impacts their academic achievement and health, as well as that of their families and future generations. Studies have also linked restrictions on housing choice to lower levels of U.S. GDP.^{931,932,933}

Racial segregation by neighborhood also remains a reality in the United States, which can be linked to and reinforced by zoning. For example, research has shown that due to continued exclusionary zoning—which influences who can easily attend

certain local public schools—school segregation today mirrors levels seen in 1968, the year that Congress passed the Fair Housing Act.⁹³⁴

States and localities have started to enact laws that can help undo the harms of zoning and land use regulations and build the foundation for more inclusive and affordable neighborhoods. These initial efforts can serve as models for future work across the United States.

State and local efforts towards zoning reform can help reshape the U.S. housing market

Despite the challenges presented by restrictive zoning policies, many states and localities are passing laws meant to modernize housing regulations and increase the number of housing options available to residents. Below are three examples of policy changes that take aim at the negative effects of past zoning rules.

Oregon: Reforming state law to increase local government uptake of zoning reform

In 2019, Oregon became the first state to require that nearly all cities and towns change their zoning codes to allow for a wide range of housing options for families. The new law—House Bill (H.B.) 2001—requires every city with 10,000 people or more, as well as every city in the Portland metropolitan area with 1,000 or more people, to amend their zoning codes to allow for townhouses, duplexes, or other types of adjoined housing. About 70% of all residents of the state reside in an area that this law impacts.⁹³⁵

Governor Tina Kotek—who championed the bill during her time as Oregon Speaker of the House—explained that the law was meant to re-establish economically diverse neighborhoods that were ubiquitous in Oregon in the past. In contrast, at the time of

H.B. 2001's passage, 77% of land in Oregon zoned for residential housing was restricted to single-detached houses.⁹³⁶ The state legislature will also be providing funding to assist localities in implementing the new zoning regulations to align with H.B. 2001.⁹³⁷ Governor Kotek has previously emphasized the impact of the law will be gradual, taking place over up to 20 years.⁹³⁸

California: Using new and existing law to expand variety in housing structures and grow supply

In 2021, Governor Gavin Newsom signed Senate Bill (S.B.) 9 into law, which legalized more housing choice throughout California.⁹³⁹ Homeowners now have more freedom and flexibility when it comes to how they use their property. The new law requires a simpler local government approval process for conversion of single-detached homes into duplexes, splitting a lot in two in order to build two smaller homes or duplexes, or adding a small accessory dwelling unit (ADU) to their land.⁹⁴⁰ This law led to tens of thousands of ADUs being permitted across the state.⁹⁴¹ ADUs are often smaller attached or detached residential units that are secondary structures on a tract of land, and contain sufficient facilities for a resident to live independently.⁹⁴²

On the other hand, Californians have been much less likely to use S.B. 9's authority to convert their homes or divide their lots. This authority had only been used 282 times about a year after the bill's passage, despite estimates that as many as 700,000 homes could be built under this new law.⁹⁴³

In the past year, the Newsom administration and developers have started using existing legislative language to increase multi-unit dwelling construction more broadly, as well as counteract select localities' efforts to circumvent S.B. 9's requirements.^{944,945} A statute known as the "builder's remedy" lets developers go around

local zoning codes in areas where local governments failed to lay out a plan for housing production to meet local needs.⁹⁴⁶ In these localities, developers can move forward with projects where either all of the units are priced at levels that are affordable for middle-income households, or at least 20% of the units are affordable for lower-income households.⁹⁴⁷ This has led developers in wealthy areas like Santa Monica and Beverly Hills to use the law’s protection to apply for or initiate affordable housing projects that could have otherwise been blocked by local zoning rules.⁹⁴⁸

Albuquerque, New Mexico: Increasing supply through building conversions and accessory dwelling unit construction

In July 2023, the city of Albuquerque adopted ADU and building conversion reforms.⁹⁴⁹ The changes will allow certain properties zoned for single-family home construction to build ADUs—also referred to as “casitas”—on their properties, which impacts up to 68% of all zoned properties in the city.⁹⁵⁰ Additionally, they provide for conversions of certain non-residential developments to multi-family unit dwellings, which can facilitate conversion of former hotels to residential units.⁹⁵¹ The city has also considered other proposals to meet housing demand, which included eliminating maximum building heights, allowing single-detached homes to be converted to duplexes, and reducing parking requirements for multi-unit dwellings.⁹⁵²

New models for financing can help increase affordable housing construction

In recognition of the need for additional affordable housing supply, state and local governments are exploring financing incentives to increase the stock of housing that is affordable to low- and middle-income families without demand-side subsidies. Below are a few promising case studies for these efforts.

*Montgomery County, Maryland's Housing Production Fund:
Creating a public alternative to private housing investment*

In 2021, officials in Montgomery County, Maryland created a Housing Production Fund (HPF) to finance construction of mixed-income housing.⁹⁵³ The county's Housing Opportunities Commission (HOC) seeded the fund with \$100 million in bond financing that the fund lends out to developers to help cover the costs of new construction.⁹⁵⁴ The HOC can compete with private investors because it can afford to receive lower returns from ownership shares in the property, as well as offer lower interest rates on loans, than what private equity firms or other investors would demand.^{955,956,957}

In exchange, the HOC requires developers entering into this agreement to set aside at least 20% of the new units for families earning at or below 50% Area Median Income (AMI), and at least 10% of the units for those earning up to 70% of AMI.⁹⁵⁸ This model allows private developers to make a profit, while the HOC retains an ownership stake that supports its goal of keeping people housed at affordable rates. Importantly, it can also maintain the pace of new construction when interest rates are high as they are now, by ensuring that developers can keep their financing costs down in exchange for creating affordable housing for more middle-class families.⁹⁵⁹ Developers recently completed one of the first projects that utilized the HPF: a 268-unit building, in which 25% of the units will be affordable to tenants with income levels at 50% AMI.⁹⁶⁰

Montgomery County Maryland's Affordable Housing Opportunity Fund: Supporting affordable rent levels for tenants

In addition to the HPF, in 2022 the County created a \$14 million Affordable Housing Opportunity Fund (AHOF) to make short-term loans to prospective building owners.^{961,962} The fund aims to

support affordable housing developers in building purchases, to maintain affordable rents for existing affordable units.^{963,964,965} The short-term loans are meant to support rapid purchases of existing buildings that may otherwise be sold to landlords who could hike rents and make the units unaffordable.

New Mexico: Investing in local affordable housing trust funds

Local governments across New Mexico have also been leading efforts to finance affordable housing stock. For example, in November 2023, voters in Santa Fe approved a ballot measure instituting a tax on the sale of homes over \$1 million, with proceeds directed to the city's Affordable Housing Trust Fund (AHTF), tasked with meeting the city's affordable housing needs.^{966,967} The tax, also referred to as the "Mansion Tax," would apply only to the value of a property above the \$1 million threshold, at a rate of 3%.⁹⁶⁸ The city has estimated that the measure will generate approximately \$6 million each year, providing the fund with a substantive dedicated revenue source.^{969,970} In 2022, voters in the City of Las Cruces also approved the issuance of a \$6 million general obligation bond to fund its AHTF, which was established in 2010 and previously relied on limited capital infusions from the city's general funds.^{971,972,973,974} The city previously estimated that the initial \$6 million investment could help leverage more than \$36 million in funding from state, federal, and private sources, to create an additional 175 affordable housing units.⁹⁷⁵

Maine: Enhancing affordability in rural areas

Maine's Rural Affordable Housing Rental Program, launched in 2022 using \$20 million in funds from the American Rescue Plan (ARP) and MaineHousing bond issues, uses forgivable loans to incentivize affordable housing development in rural areas that might not otherwise draw new construction.^{976,977} Eligible

applicants include public housing authorities, as well as nonprofit and for-profit developers, and the loans they receive can be forgiven for up to \$185,000 per unit.⁹⁷⁸ The program targets rural areas for projects and is intended to help build 115 new units in rural Maine with existing funds.⁹⁷⁹ All units that benefit from the program must be leased to those making at or under 80% AMI, and any loan recipients must limit rent increases on supported units for the next 45 years.^{980,981} The program has already closed applications due to significant uptake, though Governor Janet Mills' recently passed FY 2024-2025 budget dedicated up to \$35 million to the program to support continued operations.^{982,983}

Institutional investors are exacerbating the housing crisis in vulnerable communities across the United States

Institutional investors, such as private equity-backed firms, hedge funds, and real estate investment trusts (REITs) have a growing presence in the single-family housing market. Mounting evidence shows that investors' purchases of single-family homes contributed to decreased housing supply in local markets across the country. Investor activity is particularly notable in Sun Belt markets with robust population growth and robust growth in rent levels.⁹⁸⁴ Data from 2017 to 2023 also show stark increases in the shares of homes purchased in all cash—a buying approach that first-time or median-income homebuyers are less likely to use, and which institutional investors use frequently.⁹⁸⁵ While the increase in institutional investors is not the cause of the U.S. housing shortage, their growing presence and the local concentration of their purchases can threaten many Americans' access to affordable housing.

Institutional investors' expanding presence in the housing market is especially pronounced in distinct regions across the country

As interest rates fell and rents rose during the pandemic, investors who already owned three or more homes began to purchase an increasing share of all homes being sold. In early 2022, monthly single-family home purchases by investors reached 28% of single-family home sales, well above pre-pandemic rates of around 16%.⁹⁸⁶ In mid-2023 the share of investor purchases remained high, at between 26.8% and 28% from July to September 2023.⁹⁸⁷ Meanwhile the share of purchases made by owner occupants dipped below the pre-pandemic norm.⁹⁸⁸

Among all investors, those that own 3 to 99 properties purchased the largest fraction of single-family homes on the market in 2023.⁹⁸⁹ For example, in the third quarter of that year, these investors were responsible for about 80 percent of all investor purchases described above. However, “institutional” or “mega” investors, who own 1,000 properties or more, have also increased their share since the pandemic. Institutional investor purchases of single-family homes remained at 1% of total annual purchases between 2017 and 2019 but tripled to 3% in 2021.⁹⁹⁰

The Office of Policy Development and Research at the U.S. Department of Housing and Urban Development (HUD) examined the purchasing trends of institutional investors in the single-family rental market and noted that institutional investor activity is heavily concentrated in specific areas of the country, namely throughout the Sun Belt, in low-income communities, and in neighborhoods that have historically been home to communities of color.⁹⁹¹ For example, according to HUD’s analysis, in 2021 institutional investor purchases made up over two-thirds of single-family home purchases in Lincoln County, Mississippi—a county

with a poverty rate above 20%—and more than 60% of purchases in Van Buren County, Iowa, which is one of the lowest-income counties in the state and has a per capita income of \$32,188.^{992,993,994,995}

It follows that, while the percentage of investor purchases nationwide may be low relative to the wider market, their impact on lower-income neighborhoods and communities of color can be significant, especially in neighborhoods where their purchases are highly concentrated. Looking only at national trends therefore risks overlooking the threat these investors could pose in specific regions and local communities. Further federal studies of investor presence in these and similar housing markets would help determine the impact that investor purchases are having on economic inequality and housing access at the local level.

Cash home purchases have increased in recent years and continue to make up a significant share of total home purchases

The growing use of all-cash purchases, which investors or wealthier homebuyers can use when buying a home, can also make it increasingly difficult for median-income and first-time homebuyers to compete in the housing market. A 2023 report from Redfin, which focused on the 40 most populous metropolitan areas in the United States, found that cash purchases accounted for 33.4% of all home acquisitions made in April 2023, part of an increasing trend in such purchases since mid-2020.⁹⁹⁶ This marked the highest monthly share of cash purchases in the market since 2014.⁹⁹⁷

This trend appears to be an offshoot of the pandemic-era, when the housing market was immensely competitive and first-time homebuyers often struggled to find an affordable home. For example, in 2021, the National Association of Realtors (NAR)

reported that non-first-time buyers were using cash to give them a competitive edge, ultimately winning out over first-time buyers.⁹⁹⁸ Still, the trend is not letting up. According to Redfin's study of the 40 most populous U.S. metro areas, as the rate of overall home purchases have declined, cash buyers' purchases have not declined as greatly. While overall home purchases declined by 41% between April 2022 and April 2023, the decline in all cash sales was only 35%.⁹⁹⁹ As a result, the share of cash purchases among total home purchases remains high.¹⁰⁰⁰

First-time homebuyers, and those purchasing their primary residence, are unlikely to be all-cash buyers. In April 2021, only 6% of first-time buyers bought their home using only cash, according to an NAR survey.¹⁰⁰¹ In that same month, only about 15% of primary residence buyers had bought their home using all cash.¹⁰⁰² Cash buyers also tend to be wealthier and older than the typical buyers depending on mortgages for their home purchase.¹⁰⁰³ In 2022, the share of all-cash, primary residence "repeat buyers"—or those who are not buying a home for the first time—rose to 27%, up from 17% in 2021.¹⁰⁰⁴ Additionally, whether or not a homebuyer is using cash, prior homeownership can facilitate more competitive offers on homes. An NAR report also found that the share of "repeat buyers" was 68% of all buyers in November 2023, above the long-run average since 1981 of 62%.¹⁰⁰⁵

Taken together, median-income or first-time homebuyers cannot effectively compete against all-cash buyers. The increasing share of all-cash buyers in the market can therefore lead to an even less affordable housing market in the long run.

Provisions in the tax code encourage institutional investment that crowds out average homebuyers

Harmful tax advantages that incentivize investor purchase of single-family homes can further limit housing supply and block first-time and middle-class homebuyers from owning a home. For example, component depreciation—also known as cost segregation—allows investors to separate a large asset into certain component parts when determining the extent to which the asset has depreciated.¹⁰⁰⁶ While the practice of separately depreciating structural components like walls and roofs for tax purposes ended in the 1980s, investors can still apply this approach to non-structural components and record a depreciation that is more rapid than the recorded depreciation of the overall home.^{1007,1008,1009} In contrast, homeowners cannot take these deductions on owner-occupied homes.¹⁰¹⁰ The Biden administration has proposed reforms to this investor loophole, which are anticipated to generate \$7.3 billion in cumulative federal revenues from fiscal years 2025 to 2034.¹⁰¹¹

Moreover, 1031 exchanges—also called “like-kind” exchanges—allow real estate investors to defer their tax payments on their investment gains indefinitely after selling their real estate asset if they invest those gains in real estate.^{1012,1013} This applies only to real estate assets used in a trade or business, so they cannot apply to residential homes. In December 2023, the Joint Committee on Taxation released tax expenditure estimates which indicated revenue losses in fiscal year 2024 of \$9.7 billion because of deferral through 1031 exchanges.¹⁰¹⁴ In addition to weakening an additional tax incentive for institutional investor home purchases, limiting 1031 exchange deferrals to \$500,000 in gains annually for each single taxpayer—as proposed in President Biden’s fiscal year 2025 budget—would yield approximately \$19.7 billion in cumulative revenue between fiscal years 2025 through

2034.^{1015,1016} Though separate parts of the tax code benefit individual homebuyers, specifically the mortgage interest deduction, the investor tax advantages described above currently give large investors an unnecessary leg up in the competitive U.S. housing market.

The Biden administration and Congressional Democrats are taking important steps to end the housing crisis

The U.S. Department of Housing and Urban Development is an essential tool for supporting U.S. housing needs

Through the early and mid-1970s, HUD's budget made up around 7% of the federal government's budget authority. However, that experienced a sharp drop from 1979 through the early 1980s, hitting a low of 1.9% of the federal budget by 1983. After a brief recovery in 1985 (reaching about 3% of the budget), HUD's fraction of the budget once again fell, and hovered between 1% and 2% of the total federal budget from the late 1980s up until 2023.¹⁰¹⁷

Increased federal funding for HUD could be one step towards resolving the housing crisis. Additional funding would provide HUD with more resources to meet housing needs that the private market will not meet on its own, as well as more resources to support research, tracking, and data analysis of housing market trends for policy decisions and public consumption.

These increased resources are especially important in response to rising housing costs and the associated increase in homelessness. Unfortunately, the existing federal programs meant to fill the housing gap for those most in need, prevent homelessness, and address poor housing conditions remain underfunded. For example, the estimated maintenance backlog for public housing is

\$90 billion.¹⁰¹⁸ Public housing served 835,000 households in 2022, which is more than the number of households residing in many major cities that year, including Washington, D.C.^{1019,1020} In addition to these challenges, the National Low Income Housing Coalition estimates that the United States still faces a shortage of 7.3 million rental homes that households with extremely low incomes can access and afford.¹⁰²¹ To meet these needs, Democrats are advocating for greater HUD funding through the appropriations process, and pushing for substantial investments in affordable housing production and rehabilitation through legislation like the bipartisan Affordable Housing Credit Improvement Act and the Green New Deal for Public Housing Act.^{1022,1023,1024}

Additionally, research suggests that an increase in funding toward HUD's Housing Choice Voucher (HCV) program, to allow the program to cover all eligible households, would lift 2.5 million children out of poverty and lead to a 13% reduction in nationwide poverty.¹⁰²⁵ Preventing income-based discrimination in the housing market by enhancing protections will also allow this program to fully meet its potential.¹⁰²⁶ In addition, bills like the Delivering Essential Protection, Opportunity, and Security for Tenants (DEPOSIT) Act sponsored by JEC Chairman Heinrich would make sure that families with vouchers can afford upfront move-in costs like security deposits and move-in fees.^{1027,1028} Ongoing pilot programs at HUD like the Community Choice Demonstration program are exploring other ways to improve housing and economic outcomes for families with vouchers.¹⁰²⁹ These additional policy changes and supportive services will mean that larger investments in the voucher program go further in terms of helping families access stable and affordable housing.

Currently, policymakers depend on disparate private sources of data for trends in housing rental and sales markets. Researchers have recommended that HUD play a role in assembling housing market metrics across these sources in order to better inform policy interventions.¹⁰³⁰ Providing more federal funding to HUD in support of establishing centralized, comprehensive federal reporting on housing market indicators would also create a free, public one-stop-shop for this information.

The Biden administration has taken significant steps to reduce housing costs and increase affordability

Alongside the state and local efforts highlighted above, the Biden administration has advanced efforts to alter current land use laws and zoning regulations to ensure more Americans can afford a home that promotes their economic and social well-being.¹⁰³¹ Specifically, the administration's Housing Supply Action Plan includes multiple programs that support housing construction. For example, the Pathways to Removing Obstacles to Housing (PRO Housing) program provides a total of \$85 million in grants to localities that are taking steps to remove regulatory barriers for affordable housing construction.¹⁰³² The Federal Housing Administration (FHA) has also published a proposal to facilitate ADU financing and HUD has announced policy changes that will allow more, larger loans to qualify for the LIHTC program.¹⁰³³

In addition, the ARP's State and Local Fiscal Recovery Funds (SLFRF) program has helped to stimulate affordable housing construction and support housing stability.¹⁰³⁴ Between July 2022 and April 2023, state and local allocations towards housing construction, preservation, and stability grew by 29%.¹⁰³⁵ The HOME program, which received \$5 billion from the ARP to support affordable housing construction, rental assistance, and supportive housing services, is anticipated to increase affordable

housing stock across the country by at least 20,000 units.^{1036,1037,1038}

Building on prior work, President Biden's budget further advances efforts to increase affordable housing supply

President Biden's budget seeks to address the needs of the moment through both mandatory and discretionary spending on housing that maintains fiscal responsibility.¹⁰³⁹ In terms of discretionary spending, the budget provides an increase of \$2.5 billion in funding for the HCV program. Among other initiatives, the budget also provides additional funding for new Project-Based Rental Assistance (PBRA) contracts, as well as a \$37 billion investment in LIHTC.¹⁰⁴⁰

President Biden's proposal for mandatory spending on housing through 2034 addresses challenges met by those who face the greatest housing insecurity and ensures support for lasting solutions. For example, it proposes \$7.5 billion in mandatory funding for a new PBRA program for extremely low-income households.¹⁰⁴¹ This program would bring together public and private capital to develop low-rent multifamily housing and mixed-income housing. The budget also proposes a one-time \$7.5 billion capital injection to help rehabilitate distressed public housing.¹⁰⁴²

In addition to these programs, the President has proposed mandatory funding for housing voucher programs for extremely low-income veterans and for young people emerging from foster care, assistance with downpayment for first-generation homeowners, grants to assist localities in eviction prevention efforts, emergency assistance specifically for older adults who risk homelessness, and grants that would directly help rehouse people currently experiencing homelessness.¹⁰⁴³ Moreover, the President

is proposing \$20 billion in mandatory funding towards the Innovation Fund for Housing Expansion, incentivizing increased uptake of land use and zoning reforms, as well as other state and local efforts to expand the housing supply.¹⁰⁴⁴ Through these comprehensive efforts, the Biden administration's proposals would address the cost of housing for diverse populations, ages, and income groups across the country.

States and localities across the country are working to reverse the consequences of existing zoning restrictions and provide more funding for affordable housing construction and maintenance. Congress can support these efforts by funding land use reform implementation, financing state and local efforts to build more affordable housing, investing more federal funds in new construction, and allocating funding towards housing needs as laid out in the President's budget.

The federal government is also well-positioned to help municipalities share information and ideas on the best ways to propose, pass, and implement zoning and land use reform as laid out above. Finally, the administration could consider issuing a new example of legislative language that states and localities could use to undo the exclusionary land use models created in the 1920s, that stand in the way of housing progress. Through such guidance, the administration can facilitate initial steps towards a new era of housing across the country.

No one program or policy will resolve the nation's housing crisis on its own. Coordination between state and local governments and the federal government can help ensure the array of policies aimed at increasing the supply of affordable housing for all Americans will be successful.

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