118th CONGRESS

1st Session

**SENATE** 

REPORT 118-XXX

#### **RESPONSE**

OF

# JOINT ECONOMIC COMMITTEE CHAIRMAN MARTIN HEINRICH

TO THE

### 2023 ECONOMIC REPORT OF THE PRESIDENT



JULY 27, 2023

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#### THE 2023 JOINT ECONOMIC REPORT

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MR. HEINRICH, from the Joint Economic Committee, submitted the following

#### REPORT

Report of the Joint Economic Committee on the 2023 Economic Report of the President

#### CHAIRMAN'S VIEWS

I am pleased to share the Joint Economic Committee (JEC) Democratic response to the 2023 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 2023.

This report focuses primarily on forward-looking policies that will continue our economic growth and bolster our economic resilience while helping to build a sustainable and equitable economy that works for all Americans. Despite the economic headwinds we have faced in recent years, there are clear signs that we are headed in the right direction. The right set of policies will help us build upon these successes.

We are making progress in our ongoing efforts to bring down inflation. Compared to this time last year, when prices were spiking in the wake of Russia's invasion of Ukraine, the United States is seeing lower prices at the pump and at the grocery store. This is helping to relieve some financial pressure for American families, workers, and small businesses. While we still have work to do to bring down prices across the economy, these are promising signals of our continued economic recovery.

As our economy recovers, more Americans are returning to work and our labor market continues to grow. Under President Biden, our economy has added more than 13.2 million jobs and seen 29 consecutive months of job growth. Unemployment for Black and Hispanic workers has fallen significantly. Lower-income workers have seen significant wage gains and better career possibilities. We strive for an economy that creates opportunity and goodpaying jobs for every American, and we are continuing our work towards that goal.

Investments from the Inflation Reduction Act, the Bipartisan Infrastructure Law, and the bipartisan CHIPS and Science Act are creating new jobs in infrastructure, clean energy, and manufacturing—and will continue to do so into the future. We should build on this by strengthening job training and apprenticeship programs and investing in children's education and

health care. Investing in children and young adults helps raise incomes, improve workforce skills and job retention, and reduce poverty—opening new doors to economic opportunity.

We are building an equitable economy for future generations. That requires adjusting to rapid changes in our economy, technology, and climate. We must conserve our threatened water resources and transition to cleaner energy sources, being careful to do so in a way that benefits rather than harms the communities that currently rely on fossil-fuel energy for jobs and revenues. And as we work to mitigate the effects of climate change, we must also preserve our public lands, which help fuel local economies and create much needed jobs in many rural communities.

Continued public investment is necessary in order to maintain our strong economic recovery, and those investments will create returns that will help maintain the United States' leadership in innovation, productivity, and national security. It will also position us to build a more sustainable, equitable future.

We can and should make investments in a fiscally responsible way. In the midst of debates on government spending, we should acknowledge that where and how we spend money speaks to the values we hold. Under the previous administration, a Republican-led Congress passed a nearly \$2 trillion tax law that primarily benefitted the wealthiest Americans and big corporations. Under President Biden and the Democratic majorities in the 117<sup>th</sup> Congress, the federal budget deficit came down \$1.4 trillion in FY 2022. The Inflation Reduction Act passed in August 2022 is expected to reduce the deficit even further—by nearly \$240 billion over the next decade—while codifying policies that will help bring down costs and invest in the future of American families and businesses.

A successful economy is one in which parents can afford to provide opportunities for their children to thrive, entrepreneurs can start new businesses, and workers can pursue jobs that will support their families and allow them to retire with peace of mind. We have the opportunity—and the responsibility—to pass smart economic policy that invests in American families, workers, and businesses. We must seize that opportunity.

MARTIN HEINRICH CHAIRMAN

#### **CHAPTER 1: ECONOMIC OUTLOOK**

## Principal economic indicators show continued economic strength

Today, our economy has recovered more than 13.2 million jobs since President Biden took office, and states like New Mexico are seeing their unemployment rates at the lowest levels in decades. But we continue to face challenges from the global disruptions caused by Russia's invasion of Ukraine, instability in financial markets, higher interest rates, and the rising threat of climate change.

Even as the United States faced global economic headwinds in 2022, businesses added jobs, the economy grew, and inflationary pressures decreased in the second half of the year. In 2022, real Gross Domestic Product (GDP) grew 2.1% and the country gained 4.8 million jobs. <sup>12</sup> In June 2023 alone, the United States added 209,000 jobs and the unemployment rate stood at 3.6%, near its 50-year low. Inflation, which is still affecting family budgets, has dropped significantly since last summer. May's Consumer Price Index (CPI) figures showed annual inflation dropping to 4.0%, well below the recent peak of 9.1% in June 2022. <sup>3</sup>

The budget deficit has come down significantly under President Biden, and the Inflation Reduction Act will continue progress on decreasing the deficit. Under President Biden and Democratic majorities in the 117th Congress, the federal budget deficit came down \$1.4 trillion in FY 2022. This stands in stark contrast to Republican majorities under the previous administration, which passed an almost \$2 trillion tax law that handed out massive tax cuts to the wealthy and big corporations.<sup>4,5</sup> The Inflation

Reduction Act passed in August last year is expected to reduce the deficit by \$240 billion over the next 10 years.<sup>6</sup>

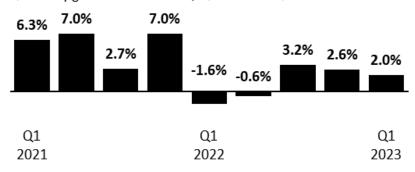
Continued public investment is needed to maintain the strong economic recovery and ensure that workers in every community have access to high-paying, high-quality jobs. Investments from the Inflation Reduction Act, the Bipartisan Infrastructure Law, and the bipartisan CHIPS and Science Act will add jobs in infrastructure, clean energy, and manufacturing. These crucial bills will help continue and build on the existing manufacturing jobs boom, with nearly 800,000 manufacturing jobs added since President Biden was sworn into office.<sup>7</sup>

GDP growth has remained positive throughout the Biden administration.

Despite repeated warnings to the contrary, the United States is not in recession. Although real GDP growth dipped below zero in the first two quarters of 2022, the business cycle dating committee of the National Bureau of Economic Research did not declare that the United States was in a recession given the lack of a widespread economic downturn across multiple indicators.<sup>8,9</sup> Major contributors to the measured negative growth rates included declines in highly volatile GDP components such as inventories and net exports, which are influenced by factors other than the current health of the domestic economy.<sup>10,11,12</sup>

# Despite Fears, a Recession was Averted and the Economy Continues to Grow

Quarterly growth in real GDP, Q1 2021 to Q1 2023



Source: Bureau of Economic Analysis Note: Data are seasonally adjusted

Multiple measures of inflation continue to trend downward.

Since the headline inflation rate peaked around 9% last summer, it has come down steadily to around 4% today. Rapid declines in food and energy prices have contributed a great deal to the easing of cost pressures facing American families. Prices of goods and services apart from food and energy have also come down dramatically from their peak, in a slowing of what is known as "core inflation". However, the core inflation rate has proved to be more stubborn in recent months, hovering around 5.5%.

Within core inflation, growth in the price of goods has come down steadily. This reflects a slow but steady normalization of cost pressures in the goods market, as supply chains return to normal and the last echoes of pandemic-era disruptions in industries such as microprocessors and new and used cars fade into the past. Growth in the price of services, however, has remained elevated, due largely to a spike in residential rents last year. Because of the length of rental contracts, the subsequent normalization in rent prices will take some time to be fully reflected in the CPI, and

would be expected to drive measured core services inflation lower for the next few months.

The non-housing portion of core services inflation, sometimes referred to as "super-core" services inflation, remained around 0.23% in May, and 4.53% year-on-year, buoyed by the continuing strength of the American consumer and the post-pandemic rotation from goods to services consumption. <sup>13</sup> The Federal Reserve's decision to hold interest rates steady in June reflected a recognition that the lagged effects of the last year's rate hikes are working their way through the economy, and will continue to push core inflation back towards the Fed's 2% goal.

Bipartisan infrastructure and CHIPS deals, as well as IRA, are dramatically boosting factory construction.

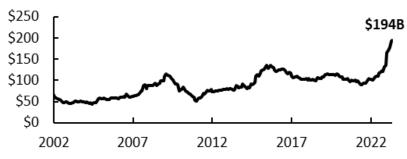
Public investments have been essential to ensuring a strong and equitable economy over the past three years. From historic relief packages like the American Rescue Plan to the landmark climate provisions of the Inflation Reduction Act, we have seen how bold federal investments can respond to some of our biggest challenges. During this same period, Americans have also seen the benefits and harms of technology, grappled with the stark realities of finding adequate care for their families, and seen the job market shift with unease. Throughout it, we have shown resilience in a time of immense change.

The historic commitments that are being made to reshoring and building a prosperous, sustainable, and resilient future are beginning to bear fruit in a renaissance of American manufacturing. In the latest statistics, investment in domestic construction by American manufacturers has shown an unprecedented increase. Across the country, businesses are

breaking ground to construct factories that will provide jobs and grow our manufacturing base.

#### Total Manufacturing Construction Has Boomed Since Last Summer

Total construction spending in manufacturing, billions of 2023 dollars, January 2002 to May 2023



Source: US Census Bureau and Bureau of Labor Statistics

Recent evidence shows that investments in the IRS will more than pay for themselves through higher tax compliance by the very wealthy.

Despite calls from Republicans to defund the Internal Revenue Service that would have made it easier for the wealthy to cheat on their taxes, Congressional Democrats maintained the bulk of the funding directed towards modernizing the Internal Revenue Services' (IRS) systems and enforcement. Aside from the dramatic contribution that better IRS enforcement can bring to deficit reduction, the capacity-building and reforms enabled by this investment will allow more equitable enforcement of the provisions of the tax code. Recent estimates suggest that every dollar invested in auditing the highest-income taxpayers yields \$12 in recovered revenue—a "win-win" proposition for the vast majority of Americans who pay their taxes on time and in full. 14

The costs of GOP debt limit brinksmanship have yet to be fully counted.

Although the compromise bill averted a catastrophic default, the long-term damage caused by the GOP's threats to the full faith and credit of the United States will not be apparent for some time. The Government Accountability Office estimated that the previous round of debt-ceiling threats in 2011 had raised borrowing costs by 70 basis points, which translates to an additional nearly \$160 on homeowner's monthly mortgage payments, adding up to an extra \$58,000 over the life of their loan. It also translates to approximately an additional \$2,500 and \$800 for small business and car loans, respectively. 15,16

In addition to any effect on interest rates, the extended battle over the debt ceiling has interfered with the smooth execution of debt issuance by the Treasury. Forcing the Treasury to concentrate debt issuance in the next few months fits poorly with the needs of capital markets and will provide unwelcome pressure on the world's most important financial market, at a time when irresponsible balance sheet management at several regional banks has highlighted the importance of financial system stability and the complexity of maintaining it.<sup>17</sup>

## Continued strength of the labor market promotes equity and resiliency, but we need more

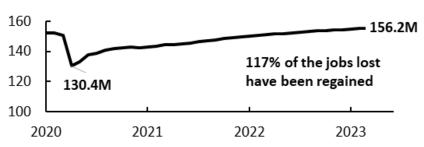
Job gains keep beating expectations, and overall unemployment remains near historic lows.

This far along in a recovery, the labor market would ordinarily be expected to show some signs of sluggishness, but multiple indicators are pointing to its continued strength. The economy continues to add jobs at an elevated rate, and overall unemployment remains near historic lows. <sup>18</sup> Despite widely

publicized layoffs at high-profile technology firms and Wall Street banks, new unemployment claims have moved up slightly but remained relatively stable. Continuing claims have recently fallen.<sup>19</sup>

### The United States Has Added Over 13 Million Jobs Since President Biden Took Office

U.S. total nonfarm payrolls, in millions, January 2020 to June 2023



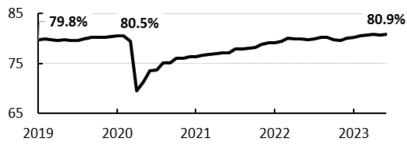
Source: Bureau of Labor Statistics Note: Data are seasonally adjusted.

However, low overall unemployment rates mask less-encouraging trends for certain groups of Americans. For example, while the June 2023 unemployment rate for all women ages 16 and older was 3.4%, the equivalent rate for Black women was 6.1%. Furthermore, Black women's unemployment rate was still above its pre-pandemic February 2020 level (5.3%). Other groups, such as Black men and young Americans, similarly face higher rates of unemployment. We need to continue prioritizing equity in the recovery of our economy.

While the pandemic may have had a lasting effect on the labor force participation of Americans over 55, participation rates among younger Americans have recovered rapidly to prepandemic levels. Although they have begun to subside, vacancies remain elevated, particularly relative to unemployed workers. Continued strength of labor demand indicates the potential gains from ensuring continued labor force growth, such as by addressing pandemic-era shortfalls in immigration and barriers to child care.

### U.S. Employment Rate Exceeds Pre-Pandemic Level

Monthly prime-age U.S. employment-population ratio, January 2019 to June 2023



Source: Bureau of Labor Statistics

Note: Data are seasonally adjusted and for people ages 25-54.

Labor force participation rates have reached new milestones for many groups that are often left behind by the economy

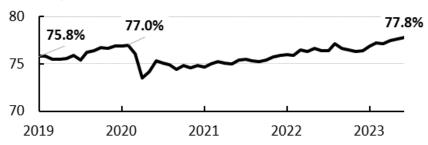
Although discrimination and persistent unequal norms continue to create headwinds for the employment of many American workers, tight labor markets during a strong recovery have begun to pull many Americans into the labor market. Women and Black Americans have overcome some of the barriers which were made brutally clear during the pandemic to achieve new milestones in the American labor force.

The labor force participation rate of American women has recently reached, and remains near, an all-time high. Coming so soon after the pandemic-era disruptions resulted in additional caregiving responsibilities and overwhelming job losses for women, this

milestone suggests that changing norms and increased equality remain a powerful force in sustaining women's historic contributions to the growth of the American labor force and economy.

# Women's Labor Force Participation Rate Has Fully Recovered From the Pandemic

U.S. prime-age women's labor force participation rate, January 2019 to June 2023



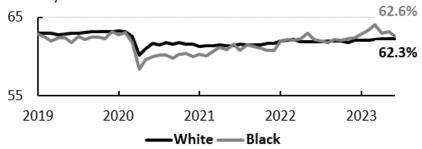
Source: Bureau of Labor Statistics

Note: Data are seasonally adjusted and for women ages 25-54.

Black Americans have made important contributions to the recovery as well, with Black labor force participation reaching parity with the equivalent rate for white Americans in August 2021 and January 2022, and the gap in employment rates reaching its narrowest point ever. <sup>20</sup> This milestone coincides with the lowest-ever Black unemployment rates. <sup>21</sup> The wage gap between Black and Hispanic workers and their white non-Hispanic counterparts has begun to fall steadily for the first time in decades. <sup>22</sup>

# Labor Force Participation Rates for Black and White Americans See Strong Recoveries

U.S. labor force participation rate for Black and white people, January 2019 to June 2023



Source: Bureau of Labor Statistics

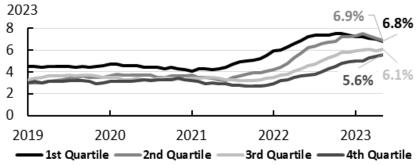
Note: Data are seasonally adjusted and for people ages 16 and older.

Wage gains during the recovery have been concentrated among lower-wage workers, starting to chip away at the accumulated inequality and wage stagnation since 1980

In fact, the progress towards shrinking racial wage gaps is part of a more general trend towards undoing the wage inequality which has surged over the last four decades. In the current recovery, wages have grown much faster for lower wage workers than for higher wage workers, and for high school graduates than for college graduates. Wages have grown faster in Manufacturing and in Leisure and Hospitality than in other industries, and for lower and middle-skilled occupations more than for high-skilled occupations.<sup>23</sup>

### Recent Wage Growth Has Been Concentrated Among Lower-Wage Workers

Monthly wage growth by wage quartile, January 2019 to May



Source: Federal Reserve Bank of Atlanta

Note: Series plots 12 month moving average of median hourly wages.

Wages have grown fastest for job-switchers, and dramatically faster for younger workers than for others. Wages of non-white workers grew faster than those of white workers until recently, and are now growing at roughly the same rate.<sup>24</sup> All of these patterns have been helping to narrow pre-existing gaps and reverse longrun trends of rising inequality.

Relief programs and a strong labor market enable resilient middle-class households to drive the recovery

Bold and timely interventions during the pandemic recession shielded household balance sheets, enabling a rapid and sustained consumer-led recovery.<sup>25</sup> Mortgage delinquencies on single-family homes have rapidly regained their pre-pandemic levels, in distinct contrast to the slow recovery from the Great Recession.<sup>26</sup> The share of American families who could meet an unplanned \$400 expense using cash or equivalent went up during the pandemic, before returning to its 2019 level of 63% in 2022.<sup>27</sup>

# Unlike the Global Financial Crisis, Foreclosure Starts Stayed Low Despite the Pandemic

Forclosure starts, in thousands, January 2008 to March 2023



Source: Federal Housing Finance Agency

The health of American consumers' balance sheets stands in stark contrast to the generational damage done by the wave of foreclosures during the Global Financial Crisis in 2008, in which 3.8 million Americans faced foreclosure.<sup>28</sup> Consumer sentiment and employment failed to fully recover for years.

Unfortunately, auto loan delinquency rates among younger and lower income borrowers have risen in recent months, indicating a high level of financial strain on some households.<sup>29</sup> This is particularly concerning because of the crossover between this population and the holders of student loan debt, who have been subject to financial uncertainty over the legal challenges to the President Biden's debt forgiveness program. The end of pandemic-era loan forbearance will present a challenge for these house-holds finances, particularly those who carry student loan debt without also having completed a degree. Only 3 out of 10 such households report considering the financial benefits of their education to outweigh the costs.<sup>30</sup>

#### CHAPTER 2: IMPROVING CHILDHOOD WELL-BEING

Investments in kids are good for families and for the economy as a whole. Recent expansions of nutrition assistance programs and the Child Tax Credit, among other programs, improved child wellbeing, but more investments are needed to build upon this progress. Expanding access to these programs and removing barriers will enable more eligible kids to benefit, improving their health and financial well-being and producing returns for the economy.

## Child poverty fell to a record low recently, but more investments are needed to keep it low

Pandemic-era policies successfully reduced child poverty to a record low in 2021, bringing the United States temporarily in line with peer countries for the first time. In 2022, however, child poverty increased with the expiration of these policies—meaning that the United States will once again lag peer countries in measures of child poverty. Expansions of and additional funding for programs like Medicaid; the Child Tax Credit (CTC); the Supplemental Nutrition Assistance Program (SNAP); the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); Head Start; the Housing Choice Voucher program; paid parental leave; and affordable child care would help support families and children.

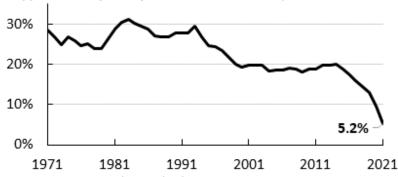
Child poverty fell to a record low in 2021, largely due to the expansion of the Child Tax Credit

Child poverty in 2021 fell to 5.2%, the lowest rate on record according to U.S. Census Bureau measures.<sup>31,32,33</sup> The child poverty rate was cut almost in half from the previous year's rate

of 9.7%. This drop was the largest single-year decline in child poverty on record and was driven primarily by the expanded Child Tax Credit (CTC) included in the American Rescue Plan.

### Public Investments Have Successfully Lowered Child Poverty

Supplemental poverty measure for children, 1971 to 2021



Source: Center on Budget and Policy Priorities
Note: Data are anchored to 2021 poverty thresholds.

Overall, the CTC lifted 5.3 million people—including 2.9 million children—out of poverty in 2021.<sup>34</sup> Just the expansion of the CTC alone lifted 2.1 million children out of poverty, and were the tax credit not expanded, the child poverty rate would have only fallen to 8.1% and these 2.1 million children would have remained in poverty.<sup>35</sup> The CTC also helped reduce the percentage of children living in near-poverty by one-third.<sup>36</sup>

Congress expanded the Child Tax Credit as part of the American Rescue Plan

The expansion of the CTC as part of the American Rescue Plan made the credit fully refundable, which enabled previously ineligible low-income families to receive the full credit.<sup>37</sup> Full refundability was the main driver of the expanded CTC's child poverty reduction and helped 19 million more children become

eligible for the full credit.<sup>38</sup> These children previously could not receive the full credit or received no credit at all because their families' incomes were too low.

The American Rescue Plan also dramatically increased the value of the CTC from \$2,000 per child to up to \$3,600 per child under age 6 and to \$3,000 per child between age 6 and 17 in 2021. This increase put significantly more money in the pockets of low- and middle-income families to pay for household expenses.<sup>39</sup>

Pre-pandemic, the United States lagged far behind peer countries in measures of child poverty

Despite being the richest country in the world, the United States has consistently had a higher share of children living in poverty than that of peer countries. In 2019, the Organisation for Economic Co-operation and Development (OECD) reported that 21% of U.S. children lived in poverty. 40,41

Using the OECD measure, the share of U.S. children living in poverty in 2019 was 21%, which was well above the pre-pandemic average of 13% in other OECD countries and higher than the child poverty rate in all but four OECD countries. This is in part because countries like Finland, Norway, Sweden, Germany, and France have implemented a range of family-friendly policies that the United States lacks, such as universal child care, child savings accounts, and child allowances. 42,43,44,45,46,47 Meanwhile, policy choices left more than one in five children in the United States living in poverty.

Children who grow up in poverty are more likely than their more affluent peers to continue to face barriers in education, employment, health, and productivity throughout their adulthood.<sup>48</sup> As income inequality continues to rise in the United

States, marginalized communities are disproportionately left behind.<sup>49</sup> In particular, children of color, those in Tribal communities, and children in rural areas are even more likely to live in poverty.

Cash transfers like the expanded Child Tax Credit brought the United States more in line with peer countries for the first time

Despite the economic chaos caused by the COVID-19 pandemic, the United States was able to cut the share of children living in poverty from 21% in 2019 to 14% in 2021, according to the OECD.<sup>50</sup> This feat was made possible by pandemic-era cash transfers that provided immediate relief to families when they needed it most.<sup>51</sup> This expanded social safety net brought the United States' child poverty rate in line with the peer country average of 13% for the first time in history.<sup>52</sup>

The success of the expanded CTC and stimulus payments can also be seen in the Supplemental Poverty Measure (SPM) published by the U.S. Census Bureau.<sup>53</sup> While the OECD compares families' income to the country's median income, the SPM calculates whether their income is above or below a set threshold based on the local cost of living for a family in their area. Under this measure, only 5.2% of children in the United States lived in poverty in 2021, a record low and a drastic decrease from the 13.1% living in poverty in 2019.

More investments are needed to sustain the gains of 2021

Although progress has been made, the United States needs to protect and expand effective policies that address child poverty. Many of the policies that reduced poverty in 2021 have expired, once again bringing the United States out of line with peer countries.<sup>54</sup> Data released in September 2023 by the U.S. Census Bureau will show a steep rise in child poverty for 2022, mainly

due to the expiration of the expanded Child Tax Credit.<sup>55,56</sup> Analysis from the Center on Poverty and Social Policy at Columbia University showed that 3.7 million children fell back into poverty after the monthly CTC payments ended.<sup>57</sup>

Instead of adding more barriers for benefit recipients, as House Republicans have insisted on doing, the United States should continue to invest in programs like the Supplemental Nutrition Assistance Program (SNAP), which has a proven track record of increasing food security for low-income families. <sup>58</sup> In total, 14.4 million children received SNAP benefits in 2019. <sup>59</sup> Republican lawmakers' radical budget plans would also drastically cut funding for other essential programs that support families, including Head Start, the Housing Choice Voucher program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), child care support, and the Low-Income Home Energy Assistance Program.

Democrats in Congress, by contrast, have reintroduced legislation in the 118th Congress to make the 2021 expansion of the Child Tax Credit permanent, which would benefit more than 60 million children with three-quarters of the benefit going to families in the bottom three quintiles. 60,61 A total of 209 House Democrats have signed onto a bill that would expand the CTC with an emphasis on refundability while also providing a \$2,000 payment for newborn babies. 62,63 In addition, family-friendly policies such as paid parental leave, universal child care, and broader investments through the Two-Generation Economic Empowerment Act would increase economic opportunities for families living in poverty. 64 These investments would help every American reach their full potential by reducing the number of children growing up in poverty.

Public investments in children yield economy-wide benefits

Policies like the expanded CTC are an investment in children's well-being over the long term. Research has found that an extra \$3,000 in a family's annual income when a child is younger than age 5 leads to 19% higher earnings when they grow up. 65 Other research on investments in early childhood finds that increasing family incomes has tangible outcomes for children, including higher test scores, higher high school and college graduation rates, improved health outcomes, lower rates of incarceration, and reduced need for future income support. 66,67,68,69

One study found that recipiency of the Earned Income Tax Credit when children are in their teens increases the likelihood of completing high school and college, being employed as a young adult, and having higher earnings. Another study by Hilary Hoynes and others found that SNAP recipiency before age 5 leads to greater economic self-sufficiency, reduced need for future income support, and reduced likelihood of incarceration. And yet another study showed that the recent monthly CTC payments improved the ability of households—particularly low-income households and Black and Hispanic families—to invest in their children's education and long-term development. By increasing families' ability to pay for items like tutoring and extracurricular activities, the expanded CTC helped improve future mobility and lifetime success, which creates economy-wide benefits that last for generations.

Overall, a growing body of academic research finds that public investments in children yield significant long-term returns with economy-wide benefits, as healthier, more educated kids grow up to be more productive workers with higher earnings. 74 This, in turn, also generates greater productivity and higher future revenues.

## Investments in child care and early childhood education are important for childhood development and the economy

High-quality, accessible child care fosters a number of economic and socioeconomic benefits for both individuals and the country. Underinvestment in child care and the resulting high prices have prevented the United States from fully realizing those benefits, constraining future economic growth. Proposals to address these issues include universal pre-kindergarten and capping out-of-pocket child care costs for parents. These investments will drive economic growth in both the near- and long-term by making it easier for parents to participate in the labor market and increasing the human capital of future workers.

#### Child care in America is not affordable for most working families

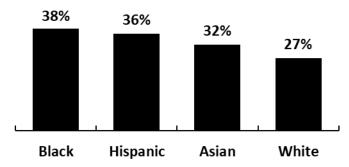
The current child care system suffers from inadequate public investment, leaving parents and caregivers to foot the bill for the rising cost of child care. Recent national estimates find that child care costs for a single child average just over \$10,000 per year. These costs can be significantly elevated depending on the state and are usually higher for younger children. For a family with two young children—an infant and a four-year-old—average child care costs exceed the median cost of rent in every reporting state and the District of Columbia.

The high cost of child care takes up a significant portion of family income. The Department of Health and Human Services (HHS) has determined that child care is unaffordable if it exceeds 7% of family income. The However, in 36 states and the District of Columbia, a typical married couple with an infant and a four-year-old spends on average more than 20% of their income on child care. These affordability issues are found nationwide, with all reporting states and the District of Columbia exceeding the 7% cap.

This high cost of child care disproportionately burdens lower-income households and those with mothers who are Black, American Indian or Alaska Native, Hispanic, Native Hawaiian or other Pacific Islander, or Asian. Ability to access suitable care also differs based on the mother's race and ethnicity. While 6% of families with a white mother reported ultimately being unable to access a care program that meets their needs, this number was double for families with an American Indian or Alaska Native (12%) or Hispanic (13%) mother. Families with Black, Asian, and Native Hawaiian or other Pacific Islander mothers also report elevated rates at 8%, 7%, and 7%, respectively. For these families, prohibitive costs remain the largest factor preventing them from accessing child care programs that fit their needs.

# The High Cost of Child Care Disproportionately Burdens Mothers of Color

Percent of mothers that say cost is a barrier to finding child care, by race/ethnicity, 2016



Source: Center for American Progress

Public investments in children by America lag that of other OECD countries

Data from the OECD show that the United States invests less in early childhood education and care as a percentage of Gross Domestic Product (GDP) than all but three other OECD countries. This chronic underfunding of the child care system has shifted the burden of rising costs onto families, leaving many unable to afford the care that they need and depriving them of the benefits of high-quality child care.

Limiting out-of-pocket child care costs will increase families' incomes and support the early development of children

The high and rising cost of child care comes with significant economic consequences. For many families, child care is either entirely unaffordable or so expensive that parents—especially mothers—drop out of the labor force to provide child care themselves, which negatively affects parents' and caregivers' ability to fully participate in the economy. Over two million parents, particularly women, are estimated to have made career sacrifices such as quitting a job or not taking a job due to child care issues in 2016 alone. It

Mothers' labor force participation is consistently lower than labor force participation among fathers. 82 While child age does not greatly affect fathers' labor force participation, mothers of younger children experience a much larger participation gap. 83 Of all mothers, Hispanic mothers experience the lowest levels of labor force participation. Across race and ethnicity, participation gaps have been linked directly to a lack of structural support for women's full economic participation, and a lack of affordable, accessible child care is a major factor. 84

Even for women who remain employed, issues with child care can cause them to miss work. Recent data show that in May 2023, 40,000 employed women reported not being at work due to child care problems, five times the number of men who reported child care-related absences. These disparate absences show how child care issues are disproportionately harming women's labor force participation—a key input into economic growth. 85 This time away from the labor market can also create long-term scarring effects, decreasing lifetime earnings and negatively impacting families' economic security as well as overall economic growth and resilience. 86

In order to boost labor force participation, it is essential that high-quality child care is made affordable and accessible. Limiting the amount that families have to pay for child care as a percentage of their household income allows families to keep more money in their pockets. Each year, labor force exits due to child care needs are estimated to cost parents and caregivers \$30-35 billion in lost income.<sup>87</sup> When lost productivity and revenue due to decreased labor force participation are included, the economic cost may be as high as \$57 billion per year.<sup>88</sup>

Studies have found that capping the cost of early childhood education at 10% could generate significant positive economic effects, increasing GDP by 1.2% annually—\$210.2 billion each year—by facilitating parents' reentry into the workforce.<sup>89</sup> For mothers and female caregivers in particular, every 1% reduction in out-of-pocket child care costs is associated with a 0.25% increase in labor force participation.<sup>90</sup> The recommendation for affordability calculated by HHS would put the cap on child care cost even lower, at 7% of household income. By setting the cap under 10%, the benefits to families and the economy would be even greater.

Each \$1 invested in high-quality child care today could yield nearly \$9 in future returns

Research has found that investment in early childhood education has long-lasting positive effects for the children who receive it and the broader economy. Research conducted by Nobel Prizewinning economist James Heckman into past early childhood education programs found that these programs generated \$7 to \$12 dollars in returns for every dollar invested. 91 People who participate in high-quality early childhood education grow up to be better educated and have higher earnings, and they are less likely to access income support programs or be involved in criminal activities. Benefits that accrue to individuals directly, as well as to the economy as a whole, include: better educated workers are more productive, higher earnings translate into higher tax revenues, reduced use of income support programs lowers government expenditures, and reduced crime translates to lower government spending on the criminal justice system. Altogether, every dollar invested in early childhood education today generates up to \$8.60 in economic benefits. In other words, investments in early childhood education pay for themselves almost nine times over the long-term.

Not only are there long-term economy-wide benefits from the children who attend early childhood education, but there are spillover benefits from improved outcomes of the children of the children who attended preschool including decreased suspension rates, improvements in adult health, increased likelihood of employment, and lower rates of divorce.<sup>92</sup>

Given the extensive body of research finding positive returns for the entire economy from investment in early childhood education, focusing on the upfront costs of investments in early childhood education is misguided.<sup>93,94,95</sup> There are immediate short-term benefits that balance out the cost of the investment, such as improved parental labor force participation. And in addition to the short-term benefits, the evidence is overwhelming that the long-term, broader economic returns greatly outweigh the initial cost of investing in early childhood education.

## Nutrition assistance programs support working families with children and improve overall health and economic mobility

Nutrition assistance programs like the Supplemental Nutrition Assistance Program (SNAP); Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); permanent summer grocery benefits; and universal school lunches are important tools for helping low-income families afford an adequate diet. Additionally, they protect families from hunger and financial hardship, reduce poverty, improve health, and support the overall economy.

Nutrition assistance programs prevented food insecurity from spiking during the COVID-19 pandemic

Overall, 10.2% of households were food insecure in 2021 and 10.5% were food insecure in 2020—essentially unchanged from the 10.5% in 2019. 96,97,98 These households were uncertain of having or unable to acquire enough food. Policy interventions ensured that food insecurity did not surge the way it did during the Great Recession. 99 During that period, the share of households that were food insecure rose from 11.1% in 2007 to 14.7% in 2009. 100 In the wake of the pandemic recession, the value of SNAP and WIC benefits were increased to help families afford food.

Congress increased SNAP benefits beginning in 2020 by providing authority for the U.S. Department of Agriculture (USDA) to approve state waiver requests for SNAP emergency allotments (EAs) while federal and state emergency declarations

were in effect during the pandemic. <sup>101</sup> This raised each household's benefits to the level of the SNAP maximum allotment. USDA subsequently revised the EA calculations in 2021 to include the lowest-income households so that they would also receive additional SNAP benefits each month. These households originally did not benefit from the emergency allotments as much, as they already received the maximum allotment or close to the maximum allotment. There was also a 15% increase to SNAP maximum allotments for much of 2021 until the USDA's update of the Thrifty Food Plan went into effect in October 2021, leading to a permanent 21% increase in maximum SNAP benefit levels. <sup>102</sup> Additionally, the American Rescue Plan increased the value of WIC's cash value benefits for the purchase of fruits and vegetables. <sup>103</sup>

Nutrition assistance programs support adequate diets for families and protect them from increased financial hardship

Programs like SNAP and WIC provide important nutritional support for working families with children. SNAP—the country's most important anti-hunger program—helped more than 41 million low-income people in the United States afford a nutritionally adequate diet on average each month in 2021. <sup>104</sup> Children are one of the groups who benefit most from this support with about two-thirds of SNAP participants consisting of families with children. <sup>105</sup> SNAP participation reduces foodinsecurity by as much as 30%, with an even more pronounced decline among children and those facing severe food insecurity. <sup>106,107</sup>

Recent changes to SNAP benefits allow families to better afford a healthy diet. In August 2021, the USDA updated the Thrifty Food Plan, which is a diet plan that is designed to be nutritionally adequate at a very low cost and is used as the basis for calculating SNAP's maximum benefit allotment. <sup>108</sup> This review, mandated by

the bipartisan 2018 Farm Bill, led to a permanent 21% increase in maximum SNAP benefit levels that began in October 2021. The review, the first since 2006, evaluated current food prices and dietary habits in a rigorous, data-driven process and marks the first time in its history that the Thrifty Food Plan has been adjusted to accurately reflect the realities of healthy eating today. The Thrifty Food Plan had become increasingly inadequate over the last 50 years as it only increased with inflation but did not factor in changes in dietary guidelines, consumption patterns, or constraints on working families. 109

Similarly, WIC provides nutrition support to six million low-income pregnant, postpartum, and breastfeeding individuals, infants, and children who are deemed to be at nutritional risk. <sup>110</sup> It accomplishes this by providing specific types of foods that tend to be lacking in the diets of low-income women and young children, support for breastfeeding individuals or infant formula, and cash value benefits for the purchase of fruits and vegetables. These cash value benefits were increased in 2021 as part of the American Rescue Plan to provide participants with more fruits and vegetables. <sup>111</sup>

Additionally, Congress included permanent summer grocery benefits, an Electronic Benefit Transfer (EBT) program, in the government spending bill passed at the end of 2022, marking the creation of "the first new permanent federal food assistance program of this magnitude in nearly 50 years." This means that low-income families including more than 30 million schoolage children can receive grocery benefits during the summer. Lith Child hunger tends to rise during the summer as children who are eligible for free or reduced-price school meals struggle to access nutritional food. Lith

Nutrition assistance programs keep millions of people, particularly children, out of poverty

Food assistance programs are incredibly effective at targeting support to those who need it the most and are powerful anti-poverty tools. SNAP, for example, focuses on households with the fewest resources: about 92% of SNAP benefits go to households with incomes at or below the poverty line. 116 Additionally, the SNAP benefit formula provides larger benefits to households with the lowest incomes than those closer to the poverty line. An Analysis from the Center on Budget and Policy Priorities found that SNAP kept nearly eight million people—including 3.6 million children—above the poverty line each year before the pandemic. 117 A separate analysis from the Center on Budget and Policy Priorities found that SNAP produces one of the strongest anti-poverty effects of any federal program. 118

SNAP is also an effective form of economic stimulus because it gets money into the economy quickly during a downturn as enrollment expands when the economy weakens. Low-income families are more likely to spend every last dollar on needs like food and shelter, meaning each dollar that goes to a SNAP recipient translates into an additional dollar spent. Data from 2017 show that nearly 78% of SNAP benefits are redeemed within two weeks of receipt and 96% are spent within a month. 119

Nutrition assistance programs improve health outcomes, support childhood development, and ensure children fare better years later

Food insecurity and inadequate nutrition leads to health problems throughout one's life. Food insecurity is linked to a poorer diet, chronic health conditions such as high blood pressure and diabetes, and overall poorer health. <sup>120</sup> Food assistance enables low-income families to afford healthier food, which can lead to

more positive health outcomes and reduce health care costs in childhood and adulthood.

Receiving food assistance such as SNAP early in life can lead to improved health outcomes years later. Research found that pregnant mothers who received food assistance in the 1960s and 1970s saw positive effects on infant birth weight. <sup>121</sup> Another study showed that adults who received SNAP as young children had lower risks of obesity and other conditions related to heart disease and diabetes as adults. <sup>122</sup> Children who receive SNAP benefits tend to report better health status than those who are not SNAP participants, and their families are less likely to forgo health care to meet other household needs. <sup>123</sup> Similarly, research has shown that WIC participation is associated with more nutritious diets, healthier births, lower infant mortality rates, and increased access to preventative health care. <sup>124,125</sup>

Receiving food assistance also leads to reduced health care spending. One study found that adults who participate in SNAP have annual health care costs that are nearly 25%, or about \$1,400, less on average than those who don't participate in SNAP. <sup>126</sup> Two other studies also found an association between SNAP participation and a reduction in health care costs by as much as \$5,000 per person per year. <sup>127</sup> SNAP is also linked to greater medication adherence as those who are experiencing food insecurity are more likely to skip doses, take less medication than prescribed, or forgo medication altogether due to cost. <sup>128</sup> SNAP can reduce household spending on food and free up resources for things like medication.

Some nutrition assistance programs also include educational components. For example, all 50 states operate SNAP nutrition education programs to better equip SNAP participants to make

healthy food choices. 129 WIC also provides participants with counseling on healthy eating as well as breastfeeding support and health care referrals. 130

Congress should expand SNAP as part of the Farm Bill reauthorization and increase WIC funding as part of the appropriations process

Congress should expand SNAP—the most important nutrition assistance program America has—when it reauthorizes the Farm Bill this fall. There are multiple ways to expand the program, including: raising benefit levels, reinstating emergency allotments that ended in early 2023, using the Low-Cost Food Plan instead of the Thrifty Food Plan to determine maximum benefit allotments, eliminating time limits on benefits for people struggling to find work, and extending benefits to all college students who meet SNAP income and eligibility requirements.

SNAP's emergency allotments ensured that food insecurity did not rise during the pandemic and provided economic stimulus, but they ended after February 2023. 131 Reinstating these allotments would ensure less food hardship and more nutritious diets, and would also enable households to spend resources on other needs. The USDA uses four different food plans to estimate the cost of a healthy diet across various price points. 132 The Thrifty Food Plan—which is what USDA currently uses to calculate SNAP's maximum benefit allotment—has the lowest cost of the four food plans. The Low-Cost Food Plan is the next one above that and would provide households with even more adequate nutrition.

Congress should also ensure that it provides sufficient funding through the appropriations process for WIC to maintain benefit levels for all eligible families and prevent the need for waiting lists. It should also maintain increased benefits for fruits and vegetables in line with the recommendations of the National Academies of Sciences, Engineering, and Medicine (NAS), as it did beginning with the American Rescue Plan and in subsequent appropriations bills.<sup>133</sup>

The House Appropriations Subcommittee on Agriculture, Rural Development, Food and Drug Administration has advanced a bill that funds WIC at \$800 million below what President Biden requested for fiscal year 2024—which would not be enough to ensure that benefit levels are maintained and waiting lists are avoided, especially as WIC participation is expected to continue growing. It would also make cuts to the fruits and vegetables benefits for an estimated 1.5 million pregnant, postpartum, and breastfeeding individuals and 3.5 million children, which would go against the NAS recommendations. The goal of WIC should be to serve all eligible families and provide support at a key point in development for pregnant, postpartum, and breastfeeding individuals, infants, and children.

Congress should remove barriers to accessing the safety net and modernize the application for these benefits

Congress should streamline applications for and the administration of proven safety-net programs and apply lessons learned from pandemic-era policies. People who are eligible for more than one type of benefit should be able to apply for them at one time, services should be provided online or by phone when possible, and benefits should be transferred electronically. The administration of WIC during the pandemic serves as a useful case study.

Pregnant individuals and parents of young children are often referred to WIC when they apply for Medicaid or SNAP, as it is assumed they are likely eligible for it as well. Eligible individuals can also apply for WIC benefits at one of WIC's 10,000 local clinics, and state are increasingly making applications for WIC benefits available online. 136 This enables eligible individuals to apply for benefits in a way that works best for them. WIC applicants are generally required to attend certification appointments that determine eligibility and nutrition assessments to identify nutritional risks in person, with some exceptions. 137 However, during the pandemic, WIC agencies conducted these appointments by phone or videoconference under federal waivers to prevent the spread of COVID-19.138 This also had a byproduct of removing barriers around work, child care, and transportation that may have otherwise prevented an applicant from attending an in-person appointment. WIC agencies also set up more methods for applicants and participants to submit documents electronically, which still allows for identity and income verification and a high level of program integrity. 139 Other modernization efforts like switching from paper vouchers to electronic benefit cards allow for a better user experience. Additionally, cards that can have benefits loaded onto them remotely offer participants a better user experience than ones that have information loaded onto a chip. The latter presented a challenge during the pandemic as WIC participants had to bring their cards to a WIC clinic to have their benefits added. 140 Expanding practices that make it easier for eligible individuals to access benefits like WIC will enable these programs to have a greater impact and reach a broader population.

Pandemic-era policies or expansions of existing policies that have proven successful can serve as a model for permanent extensions of these policies. For example, permanent summer grocery benefits (or Summer EBT) builds on the earlier success of Pandemic-EBT, which provided grocery benefits to low-income families with children during the summers of 2021 and 2022 and has proven to reduce food hardship. 141,142 As a permanent

program, Summer EBT will provide important food assistance to 30 million low-income children every summer. 143 Additionally, SNAP benefits were temporarily increased early in the pandemic through emergency allotments and other means. The USDA's update to the Thrifty Food Plan led to a permanent 21% increase in maximum SNAP benefit levels that began in October 2021. 144

# CHAPTER 3: BUILDING ON THE JOBS RECOVERY TO STRENGTHEN THE U.S. LABOR MARKET

As described in Chapter 1, the labor market in the United States has made incredible strides in the last two and a half years. The economy has routinely outperformed the labor force predictions of both private-sector forecasters and the non-partisan Congressional Budget Office. This strong recovery has pulled millions of people into the labor force, but policymakers must do more to make sure that more Americans benefit from stable and safe career opportunities.

Achieving this goal will involve both avoiding the policy mistakes of the past while also taking important proactive steps to grow the American workforce. That will mean investing in both the social safety net and in proven job training models while turning away from the ineffective work reporting requirements that fail to grow the labor force. It will also involve proactive regulations and government policies aimed at adapting to technological change driven by advances in artificial intelligence. Throughout this process, it is imperative that more workers can join a union and gain the significant economic benefits that come with collective action and worker representation.

This holistic approach to growing the labor market can build off the recent jobs boom that has already delivered measurable progress for American workers.

#### Strategies to further increase labor force participation

Since its peak in the early 2000s, the overall labor force participation rate in the United States has generally fallen.<sup>145</sup> The

Great Recession reduced labor supply considerably, and it took years to recover the jobs that were lost. Some groups, such as women and Hispanic people, were more severely affected than others. The U.S. labor force participation rate also dropped precipitously at the beginning of the COVID-19 pandemic from 63.3% in February 2020 to 60.1% in April 2020. The Holden administration, prime-age workers (or those aged 25-54) are participating in the labor force at higher rates than before the pandemic. The Habor force are higher rates than before the would not come back have been largely allayed, as most "missing workers" have returned.

The national labor force participation rate decreased by 2.9 percentage points from January 2008 (66.2%) to January 2020 (63.3%). One key to understanding this decline since the 2008 financial crisis is the United States' aging population. In 2008, the first baby boomers were eligible to take their Social Security retirement. As older workers exit the workforce, lower birth rates mean the labor pool is likely to stay low, absent a significant in-migration of prime-age adults. Aging alone does not explain the lower labor supply, however, as rates of participation in the labor force by prime-age males have been nearly continuously decreasing since the 1950s. 154,155 The labor force participation rate was brought up by prime-age women entering the workforce in large numbers, but this rate too began to decline slightly after the late 1990s. 156

Empirical evidence suggest a suite of policies that can buoy or raise the labor supply, especially if employed in concert. Labor demand continues to outpace labor supply in the post-pandemic economy, and ensuring that labor force participants are healthy; have proper training, education, and connectivity; and can access affordable child care will give a boost to Americans working or looking for work.

Access to affordable health care raises labor supply and supports workers' performance

Providing for the health care of low-income or unemployed individuals and families leads to higher labor force participation. States that opted to expand Medicaid in 2014 generally saw an increase in labor supply. 157,158 Health coverage through Medicaid has helped workers across the country to look for employment and do a better job at work. 159,160 Poor physical and mental health, including chronic disease, are significant factors associated with workers exiting paid employment through disability insurance, unemployment, or early retirement. 161 Research indicates that employee well-being is associated with better job performance, lower absenteeism, and longevity of employment. 162 Providing affordable health care is thus important to maintaining a productive and effective workforce.

Improving educational access and attainment, including in fundamental skills like literacy, creates a larger and more skilled workforce

The evidence is clear that those with higher educational attainment typically have greater participation in the labor market and higher wages. <sup>163,164</sup> Higher educational attainment also helps reduce the time in which a worker is unemployed, while vocational education and training allow jobseekers to find employment faster and obtain higher-paying jobs. <sup>165,166</sup> Literacy is a crucial step toward reaching higher levels of education. Increased literacy in adults is associated with a higher chance of being employed and earning higher wages. <sup>167</sup>

Well-designed job and career training programs can match those currently out of the labor force with promising career opportunities

Effective active labor market policies and programs (ALMPs) give workers the skills and networks to enter the labor force and find gainful employment. State and local governments should design ALMPs to reflect the needs of their populations and ensure their programs promote equity. To do so, ALMPs should provide opportunities for vulnerable populations, such as those with limited work experience, dependent care obligations, low skills, or health limitations. Successful programs help individuals strengthen life skills, social integration, and motivation; develop work-related skills; assist potential workers in finding and applying to jobs; potentially subsidize employment, training, and mentoring; and provide follow-up support. 168 While ALMPs are an important way to improve labor force participation, the needs of vulnerable groups are complex and require a holistic approach. Consistent monitoring and evaluation of ALMPs means that policies can be more likely to respond to changes in the labor market, such as during a shock like a pandemic or in a transition to clean energy, and can better integrate with other policies intended to raise the labor supply.

Increased broadband access can connect more people with employment opportunities

Access to affordable and reliable internet helps job seekers find and apply for work. For low-income individuals, access to affordable internet could help increase labor force participation and decrease the chances of being unemployed. <sup>169</sup> The internet is now an essential tool for education, access to goods and services, and communication—all of which can support an individual when seeking or training for employment. Increasing access to broadband has greater effects on certain populations. Greater

usage of high-speed internet has been found to increase labor force participation and hours worked by married women with children.<sup>170</sup> Recent federal investment in expanding broadband and related infrastructure is likely to create, at its peak over 10 years, 23,000 new jobs nationwide.<sup>171</sup>

Benefits for families can help parents enter the labor force, but they take time to make a difference and require sustained funding and good implementation

Access to affordable and reliable child care is a large factor in determining the availability to work in certain populations. A lack of access to child care disproportionately affects women, single parents, families of color, those with immigrant status, and low-income families. Nationwide, the families of one in six Latino children aged five and younger experienced job changes related to a lack of child care. For Latina and Black mothers, center-based child care for two children consumed 42% and 56%, respectively, of household income in 2017, compared to 26% for white mothers. Support for affordable child care, teleworking, and parental leave can create the necessary conditions for women with young children to join the labor force. 173

Increased immigration can also grow the labor force while strengthening the broader economy

While increasing participation among the current population is important, one clear way to grow the labor force is by increasing immigration. As the baby boomer generation enters retirement age, and population growth continues to slow, there is a growing need for immigrants to both help fill vacant roles left by older Americans leaving the workforce and meet the employment needs of a growing economy. <sup>174</sup> Immigrants already play a vital role in the current economy, working across many economically

significant sectors like education and health services, finance and real estate, and construction. 175

However, the United States should increase its number of immigrants and streamline the process to help meet the continued workforce needs throughout the occupational landscape. <sup>176</sup> Increasing employment-based immigration while ensuring that the country continues to be a welcome home for refugees and those seeking asylum is both in line with our nation's values and good for the economy. Countries like Canada have drastically increased their immigrant populations in recent years through commonsense immigration policies aimed in part at increasing economic dynamism. <sup>177</sup> Other more technical approaches include updating the list of Schedule A occupations, which would help bring in more immigrants who could fill employment shortages in identified fields where the United States faces a shortage. <sup>178</sup>

Economic evidence also shows that many of the concerns about the effect of immigrants on current workers are unfounded. Research shows that immigration does not bring down wages for similarly-skilled workers. Other research shows that immigrants also support additional jobs because they bring complementary skills to those more common in the U.S.-bom labor force, which can then support a "multiplier" effect that grows the broader labor force. Iso, 180, 181 Immigrants also help to keep our economy more dynamic by moving between different labor markets in response to changing levels of demand.

## Work reporting requirements fail to expand the workforce while punishing those in need with unnecessary bureaucracy

There is a long-running assumption that those who receive social assistance choose to not work and must be compelled to do so. 183 But the reality is that most adults who receive assistance from

programs like Medicaid and the Supplemental Nutrition Assistance Program (SNAP) are already employed, while others are between jobs, attending school, caring for family members at home, or have an illness or disability that may prevent them from working. Data from the Kaiser Family Foundation shows that more than six in 10 adults who receive Medicaid are working full-or part-time, and a further 30% are students and caregivers or have a disability or illness. <sup>184</sup> Assuming that benefit recipients are choosing to not work also ignores structural labor market issues that may hinder some from working, such as discrimination in hiring, the lack of affordable and reliable childcare and paid leave, and failure to provide accommodations to those who are sick or disabled.

Programs like Medicaid and SNAP—two of the most successful anti-poverty programs in America—provide nutrition health and health care assistance for millions of Americans, which can lay a foundation for them to join the labor force. It is difficult for those who are hungry and in poor health to look for and sustain work. Before the pandemic, Medicaid covered over 64 million people as the largest insurer in the country, while SNAP lifted over 7 million people, including more than 3 million children, above the poverty line. Instituting work reporting requirements that block people from receiving this assistance would be counterproductive, especially without providing any additional supports to help people find jobs. The anti-poverty effects of these programs would also diminish under stricter work reporting requirements, as it would cut assistance without connecting people to jobs.

Evidence shows that work reporting requirements are ineffective at increasing employment or labor force participation

Economic studies show that work reporting requirements for social assistance programs achieve little to no progress towards their supposed goal of increasing labor force participation. Instead, they are only effective at taking supports away from people. Numerous studies have shown that SNAP work requirements for adults who don't have kids or a disability have "no measurable impact on employment or earnings." <sup>187</sup> On the other hand, work reporting requirements are extremely effective at reducing program participation. Data from the Department of Health and Human Services show that work requirements could jeopardize Medicaid coverage and access for 21 million people, while the Center on Budget and Policy Priorities estimated that the Republicans' Default On America Act would have put Medicaid coverage at risk for more than 10 million Medicaid expansion enrollees in 32 states. 188,189 Another study found Virginia's work requirements helped reduce SNAP participation by 53% among adults who were subject to the requirements in the 18 months following their introduction. 190 And households without children aren't the only ones who lose benefits—another study found that increased administrative burdens reduced Medicaid and Children's Health Insurance Program coverage for families by 5.4% within the year after they were enacted. 191

Evidence from states also show the harmful effects of short-lived Medicaid work reporting requirements, with thousands losing coverage and no increase in employment. <sup>192,193</sup> In Arkansas, more than 18,000 people lost Medicaid coverage in just the seven months after work requirements were instituted. Similarly, 80,000 people in Michigan and almost 17,000 people in New Hampshire would have lost coverage had the policies not been halted. In all three states, people who were working or who should have been eligible for exemptions lost coverage or would have been at risk of losing coverage. At the national level, these work requirements could mean millions of Americans, including those who are

working or who are exempt, losing their Medicaid coverage or SNAP benefits.

Work reporting requirements often mean that people who are already employed or exempt from the requirements must jump through additional hoops to get their benefits

People who are actively working could still lose their benefits because they would have to meet more complex administrative requirements to prove their eligibility. Confusing eligibility rules, ineffective outreach about program changes, and complex or inaccessible reporting systems prove to be serious hurdles for eligible beneficiaries. <sup>194</sup> They do nothing to encourage work; they just put more burdens on families who are already under financial strain and make it less likely they will receive their benefits.

Even though some people, such as those with children or those with serious health needs, disabilities, or substance use disorders, may be exempt from additional work reporting requirements, they could still get captured by the requirements and lose their assistance. 195,196,197,198 They too would have to meet complex administrative requirements and would not receive additional assistance in completing the steps to claim their exemptions. Evidence from Arkansas shows that people with disabilities who were exempt from Medicaid work requirements were still subject to the requirements due to narrow definitions around "ablebodied" and the difficulty in collecting the necessary documentation such as medical records, especially for the uninsured. 199 Instead of expanding work reporting requirements, Congress should expand eligibility for programs like Medicaid and SNAP that are incredibly effective at reducing poverty and supporting families and children.

#### Artificial intelligence and maintaining American leadership

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. 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 may disrupt several industries from the music industry and questions of 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 if the large tech companies that own these AI tools consolidate their wealth and dominance. To maintain American leadership in AI and ensure a just integration of technology, the federal government, including the national labs, should work with technologists and other stakeholders to establish a safe and ethical structure for AI development. 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 ensuring that all U.S. citizens are uplifted by these changes and safeguarded against risks.

#### AI could fundamentally alter the U.S. labor market

AI may lead to fundamental changes in the U.S. labor market, and with its recent advancements, it is increasingly likely that the future of AI is the future of work. With AI tools, the economy may see potentially large savings in labor costs and productivity gains, leading to a possible 7% annual increase in global GDP.<sup>200</sup> AI

technologies could influence nearly every sector in the economy, which could decrease employment in certain sectors while expanding opportunity in others.

The tasks that AI targets may lead to job polarization, but recent work also suggests that tools like ChatGPT can narrow the productivity gap between lower skilled workers and those with more skills—potentially growing the middle class. Because routine tasks that are most susceptible to AI are predominantly in middle-paid occupations while non-routine tasks are in low and high-paid occupations, middle-income jobs may be most likely to change with an increase in AI tools.<sup>201</sup> However, a recent study showed that ChatGPT helped narrow the productivity gap between lower skilled workers and workers with more skills in a customer service context and could point to AI providing skills to grow the middle class.<sup>202</sup> High skill occupations are also exposed to AI tasks that involve detecting patterns, making judgment, and optimizing, such as clinical lab technicians, chemical engineers, optometrists, and power plant operators. 203 Thus, technological advances will impact the labor market in complicated and uncertain ways.

History (e.g. the advent of the dishwasher or the internet) shows that technological developments do not destroy overall employment but can render some roles obsolete and provide others with opportunities. Women are more at risk than men from losing their jobs to AI or other digital technologies for many reasons, including many that parallel those of gender inequities more broadly in STEM and in leadership positions (e.g. gender stereotypes). <sup>204</sup> The International Monetary Fund also calculated that a higher percentage of jobs (11%) held by women than by men are at risk for elimination due to AI and other technological advances. There have been reports of AI algorithms in hiring

processes being biased against women because of the data used to train the algorithms.<sup>205</sup> We must also account for complexity because AI will impact the working lives of women in different cultures and labor markets differently. AI has the potential to mitigate the corporate gender gap that broadly mirrors the STEM gap by removing bias in recruiting, reviews, and promotion decisions and by improving retention of female employees.<sup>206</sup>

Educating, training, and reskilling to meet the new challenges of an AI-informed and augmented labor market will become increasingly important to avoid job loss, especially for women and other historically disadvantaged groups. <sup>207</sup> Educating the future workforce to prepare people early on will be important, in particular increased gender and racial equity efforts in STEM fields to ensure groups are not 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. 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. 208,209 Further, Congress could adopt tax policies that encourage "human labor augmentation" within firms rather than ones that incentivize the substitution of technology for human labor and skill.<sup>210</sup>

To maintain American leadership in AI, the federal government should work with technologists to establish a safe and ethical structure for AI development

With these rapid developments in AI, both the Biden administration and Congress have begun working through what role the federal government can and should play in this space. In this exploding field, technologists are looking for structure and guidance from the government on safe and ethical AI development

while maintaining their own competitiveness. Sam Altman, the CEO of OpenAI, which created ChatGPT, went so far as to ask for government regulation of AI in a Senate hearing in May. <sup>211</sup> A multi-stakeholder approach is thus necessary with engagement from the government, private sector, technologists, and academia. <sup>212</sup> For example around AI and its impact on vulnerable groups (e.g. through its use in health care or due to privacy concerns), governments should create and encourage policies that consider this impact. Institutions have an essential role in fostering skill-equalizing work environments for women and other historically marginalized groups. The U.S. federal government can and should be at the forefront of coordinating a safe and ethical deployment of AI within the labor force and economy given our substantial density of AI technologists in Silicon Valley and its possible use cases across government and society.

Socially optimal applications of AI also provide an opportunity for governments to use the large datasets that they have access to combined with their need to make decisions under uncertainty to make better policy.<sup>213</sup> For example, Kleinberg and others found that for the decision on allowing a criminal defendant to post bail or requiring them to remain in prison, a machine learning algorithm suggests welfare gains for either crime reduction (up to 25%) or reduced incarceration (up to 42%) when compared to decisions made by a judge only.<sup>214</sup> Work has also shown that AI improved the targeting of COVID-19 relief in Togo using machine learning, satellite records, and mobile phone data. 215 The U.S. federal government has already begun to implement AI. For example, the Internal Revenue Service (IRS) uses it to improve taxpayer wait times, and the Centers for Medicare and Medicaid Services (CMS) has created AI competitions to predict health outcomes using Medicare data.<sup>216</sup>

Other work is also underway in the Biden administration and Congress to root out bias and promote equity and mitigate threats posed by AI—and should be built upon to further solidify American leadership in safe AI deployment. The Biden administration put out a blueprint for an AI bill of rights focused on five principles: safe and effective systems; algorithmic discrimination protections; data privacy; notice and explanation; and human alternatives, consideration, and fallback.<sup>217</sup> In February 2023, President Biden issued an executive order directing federal agencies to root out bias and promote equity in the design and use of new technologies including AI.<sup>218</sup>

Simultaneously, Congress has been ramping up efforts to understand AI and lay the groundwork for regulation. Bipartisan Senate and House caucuses complement work done in the administration and have taken leadership on organizing Member and staff-level briefings to increase AI literacy on Capitol Hill. Initial legislative proposals are currently underway.<sup>219,220</sup>

The research and development infrastructure in the U.S. has a strong role to play in AI safety and development

Further, the Biden administration is making large investments in AI research and development (R&D), and 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. <sup>221</sup> The new AI Institutes will advance foundational AI research on ethical and trustworthy technologies and on solutions and innovations on cybersecurity, climate change, the brain, and education and public health—all while supporting the development of a diverse AI workforce.

Responsible AI R&D is essential to execute science, energy, and security missions, and these efforts will require large public investments with associated substantial public benefits. The Department of Energy (DOE) has the capabilities and experience to provide leadership in this effort. DOE has proposed a new initiative to lead the nation and the world on trustworthy AI development: FASST or the Frontiers in Artificial intelligence for Science, Security, and Technology for the Nation. To initially fund this effort, a new research line item for DOE is necessary with at least \$1 billion per year. 222 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. 223 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.

The potential for other countries to get ahead of the U.S. and for malicious actors to use AI for malicious purposes highlights the need for the U.S. R&D infrastructure to understand how AI will impact all aspects of society from the societal impacts of wideranging AI use—particularly in the labor market—to impacts on democracy like data and election manipulation and privacy concerns. 224 Recent bipartisan legislation aims to protect Americans' data from unfriendly foreign nations. 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. 225

### Union representation supports the middle class while expanding worker power that can balance out corporate consolidation

Workers get significant economic benefits from labor unions, even if they are not members of a union themselves. While union membership rates among workers remain at historic lows, recent years have also seen increased union activity and a favorable tum in public opinion towards labor organizing. New union organizing reflects a growing awareness of the economic benefits that unions have to offer all workers, including those who are not union members. Together, these efforts offer another way to counterbalance the growing trend of corporate consolidation that has for many decades tilted power in the economy in favor of wealthy companies and their shareholders.

Unionization brings higher wages, better benefits, and improved working conditions

Union workers earn an average of 10.2% more than their non-unionized peers even when comparing workers with similar education, occupation, and experience levels.<sup>227</sup> Unionized workers are also 18.3% more likely to have employer-provided health insurance compared with their non-union peers.<sup>228</sup> Moreover, employers for unionized workers pay 77.4% more per hour worked towards the cost of health insurance.

Workers in unions have more control over their schedule. Unionized workers are over 10 percentage points more likely than their non-unionized counterparts to know their work schedules more than a week in advance.<sup>229</sup> Getting work schedules earlier allows workers to make arrangements, such as for child care, sufficiently enough in advance to balance both work and care responsibilities.

There are broader spillover economic benefits for all workers in industries with high rates of unionization—even if individual workers are not themselves in a union. Unions set a standard for working conditions in industries in which they are prevalent. <sup>230</sup> If employers have to compete for workers who have a good chance of getting a union job, non-union employers have to pay higher wages and offer better benefits to attract and retain workers. As a result, average wages are higher in highly unionized industries even if a worker is not themselves in a union.

Unions play a critical role in narrowing racial and gender economic disparities

Today, unions play a critical role in narrowing racial economic disparities. For example, Black, Chinese and Latino workers have a long history of organizing for better wages and working conditions, even when they were excluded from established unions and lacked labor protections. 231,232,233 Many unions excluded Black workers and other workers of color—either explicitly or by creating unreasonably high barriers. 234,235,236,237 With the formation of the explicitly multiracial Congress of Industrial Organizations in 1935 and the passage of the Civil Rights Act in 1964, unions have increasingly become more inclusive. Today, 11.5% of Black workers are members of a union, the highest rate of any major racial group. 238

Union representation narrows racial pay gaps. Collective bargaining increases the power of marginalized workers by standardizing pay grades based on skill level and strengthening protections against workplace discrimination. Unionization increases pay for Black and Hispanic workers by 13.1% and 18.8% respectively, which is a greater wage premium than the 10.2% average wage boost for all unionized workers. Increased income thanks to unionization also narrows racial wealth gaps.

For example, Black households with unionized members have median wealth that is three times that of non-union Black households. By comparison, white households with unionized members have median wealth that is less than two times that of non-union white households.

In addition, union representation is important for women's economic security. In select industries such as teaching, unions have been shown to narrow gender pay gaps. Overall, hourly wages for female union workers are 4.7% higher than for their non-union counterparts.<sup>242</sup> In the female-dominated service industries, union workers make 52.1% more than their non-union counterparts.<sup>243</sup>

Supporting workers' right to organize is a key way to help boost wages and grow the middle class

Protecting and supporting workers' right to organize is critical to boost wages and improve job quality because unionization has such a positive impact on workers' wages. To bolster workers' ability to organize themselves, Congress and the Biden administration are taking a number of actions, including through the bipartisan Infrastructure Investment and Jobs Act and through the Inflation Reduction Act.

The Inflation Reduction Act incentivizes projects that pay prevailing wages and use registered apprentices, which together will strengthen demand for union workers.<sup>244</sup> Also, many of the jobs created by the bipartisan Infrastructure Investment and Jobs Act will be subject to the Davis-Bacon Act that sets wage and benefit rates for construction workers supported through federal contracts at existing market levels and ensures that they are not paid poverty wages.<sup>245</sup> In addition, President Biden issued an executive order requiring that all large federal construction

projects include a project labor agreement, a collective bargaining agreement for contractors and labor groups on certain projects worth more than \$35 million.<sup>246</sup> Together, these efforts can help more workers get secure union jobs that create a pathway to the middle-class.

Historically, higher union representation is correlated with a larger and stronger middle-class, with declining unionization in recent decades often highlighted as one driver of greater income inequality.<sup>247</sup> Using policy to increase unionization can help reinvigorate both the American middle class while also investing in the clean energy transition, domestic manufacturing, and improving critical infrastructure. The Protecting the Right to Organize (PRO) Act, which passed the House during the 117<sup>th</sup> Congress, would further strengthen workers' ability to organize.<sup>248</sup>

# CHAPTER 4: ENSURING FINANCIAL STABILITY AND ECONOMIC FREEDOM

As the United States strives to maintain the promise of opportunity and prosperity for all Americans, consumer protection, fair market competition among businesses, and financial stability are central to that goal. However current trends in bank behavior, monopolistic business practices, and private equity's increasing footprint throughout the economy—ranging from retail business, to nursing homes and hospitals—threaten this promise. The Biden administration and past congresses have taken steps to address each of these issues. Now, Congress must work with the administration to help guarantee a sound banking system, growth of stable, well-paid jobs, allow more Americans a fair chance at entrepreneurship, and ensure a free and competitive market that protects Americans from exploitative overcharges on goods and services.

### Financial reforms are needed in light of the Silicon Valley Bank crisis

The recent failures of Silicon Valley Bank (SVB), Signature Bank, and First Republic Bank serve as a reminder of how contagion can threaten the U.S. banking sector, and in turn, the wider economy. The combined size of these three banks totaled \$532 billion, which is larger in terms of total asset size than the 25 banks that failed during the 2008 financial crisis. Silicon Valley Bank alone was the second largest bank failure in U.S. history. Poor management and internal structure have been cited as the key reasons for the banks' failure. But these institutions, despite their size, were not subject to strict scrutiny due to recent changes in

U.S. law made under former President Trump. Fortunately, U.S. policymakers and regulators acted decisively to ensure that any risks to the broader economy were contained. This section outlines why these failures happened and how more appropriate regulation can help identify and address potential issues in the banking sector, to protect against future financial instability.

Recognition of interest rate risk is key to ensuring banking sector stability in a time of high inflation

As interest rates increase, the value of assets such as Treasury bonds or loans that banks hold on their balance sheets decline. As this occurs, the bank's net worth can decline and the risk that it will become insolvent and fail to pay back its depositors will rise. A bank's solvency is of the greatest concern to account holders with balances above the FDIC's \$250,000 limit on insurable deposits, who may panic at signs of decline in asset value and pull their funds, further increasing stress on the bank. 251 This was a central issue for SVB which had 88% of deposits uninsured, as well as Signature Bank which had 90% of all deposits uninsured in the last quarter of 2022.252 First Republic had 68% of all deposits uninsured, an amount that was significantly lower than the other two failed banks. <sup>253</sup> However, First Republic was known for issuing large, and long-term loans with low interest, which fell steeply in value as the Federal Reserve increased interest rates, further reducing bank value and sparking fear of insolvency among its uninsured depositors. 254, 255, 256

Although there have not been any more bank failures in 2023 since First Republic Bank, some analysts believe that other banks may harbor a series of issues which have yet to be discovered. <sup>257</sup> If the Federal Reserve continues to raise its benchmark interest rate as expected, it is possible that other banks and financial institutions with similar asset compositions will come under added stress, if

they have failed to appropriately guard against their interest rate risk.<sup>258</sup> If these banks start to buckle, this could depress spending levels across the economy, suppress both employment and wages, and affect people's retirement savings.<sup>259</sup>

Previous rollbacks of financial regulations left significant regulatory gaps and insufficient supervision of SVB

Following the 2008 financial crisis, Congress passed the Dodd-Frank Act (Dodd-Frank), which aimed to prevent the sort of risky practices at financial institutions that had contributed to the crisis. These reforms introduced enhanced prudential standards (EPS) for financial institutions termed "systemically important financial institutions" (SIFI). Essentially all commercial banks holding at least \$50 billion in assets, including SVB, were required to maintain higher levels of assets relative to their liabilities, had higher levels of federal oversight, and had to pass stress tests that gauged their ability to weather financial shocks. 260,261 The requirements allowed for greater protection of the financial system from widespread bank failure and guarded against the need for banks with poor practices to be bailed out by American taxpayers. They have also been cited as having created the conditions for continued health of the banking sector despite macroeconomic instability during the pandemic.<sup>262</sup>

However, in 2018 the Trump administration and a Republican Congress passed the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) which among other provisions, increased the threshold for banks that qualified as SIFIs from \$50 billion in assets to \$250 billion, claiming that Dodd-Frank regulations were too burdensome. As a result of this, less than 10 banks remained under greater levels of oversight that Dodd-Frank had initially extended to thousands of large banks. <sup>263</sup>

This rollback weakened regulations that could have helped protect the wider financial system against poor management practices at SVB. Following the EGRRCPA's passage, SVB was allowed to set lower requirements for both minimum asset and liquidity levels. In addition, the new law reduced supervisory requirements for banks of SVB's size at the time, as well as made it harder for regulators to step in when concerned about mismanagement. <sup>264</sup> In addition, due to the regulatory changes made following EGRRCPA, the Federal Reserve could not quickly implement certain risk management requirements and supervisory tools to keep up with the bank's rapid growth. As a result of these regulatory rollbacks, SVB had not undertaken a Federal Reserve stress test, despite having more than \$200 billion in assets at the end of 2022.265,266,267 In a review of SVB's failure, the Federal Reserve Board of Governors highlighted issues within the bank's risk management program alongside its lack of a Chief Risk Officer for a period of months in 2022. <sup>268</sup> In addition, the review cited the bank's overreliance on a "highly concentrated business model" based in depositors from venture capital-backed firms and start-ups whose access to credit and ability to grow was reliant on the low-interest rate environment, and "a reliance on uninsured deposits" with more than 80% of deposits exceeding the Federal Deposit Insurance Corporation's (FDIC) threshold. <sup>269</sup>

Passage of the Secure Viable Banking Act and a consideration to change Accumulated Other Concentrated Income reporting is an important first step to ensuring avoidance of future bank failures

In 2018, the JEC Democratic staff under Senator Martin Heinrich highlighted how SVB would be exempt from regulatory scrutiny following the proposed regulatory rollback.<sup>270</sup> During the 118<sup>th</sup> Congress, Senator Heinrich has joined other Congressional Democrats in co-sponsoring the Secure Viable Banking Act,

which would reinstate the \$50 billion threshold for EPS.<sup>271,272</sup> In line with the Federal Reserve's findings on SVB's failure, this legislation would enable regulators to more effectively execute their supervisory duties. Given the role played by the ratio of insured to uninsured deposits, it is also imperative that federal regulators require banks to create risk models and undergo stress testing to determine their levels of exposure in the event of a deposit run.

Furthermore, policymakers may consider changing "Accumulated Other Concentrated Income" (AOCI) reporting requirements for larger banks, to enhance assessment of interest rate risk. This accounting measure allows regulators to assess the change in the value of a bank's "assets for sale" (AFS) portfolios, which include Treasuries and other fixed-income securities whose value tend to fluctuate more readily with shifts in interest rates. 273,274 However, the value of these assets will not be recorded in the bank's net income measure until those assets are sold. Thus, lack of AOCI reporting may obfuscate interest rate risk exposure and regulators' view into potential volatility in a bank's capital. 275,276

By 2019 SVB, Signature Bank, First Republic Bank, and other banks with total assets below \$700 billion had the ability to "opt out" of reporting AOCI to regulators. <sup>277,278</sup> Each of the three failed banks did opt out when given the choice. Thus, prior to the banks' failures, regulators could not as readily assess or respond to potential losses to bank equity value, linked to increasing interest rates as they may have given AOCI reporting. <sup>279,280</sup> Requiring AOCI reporting for a wider range of large banks could therefore provide regulators with tools to help prevent future bank failures or crises in the banking system.

### Curbing junk fees protects consumers from exploitation and enhances business competition

In recent years the proliferation of deceptive, additive fees has cost U.S. consumers billions of dollars. The Federal Trade Commission (FTC) terms such fees as "junk fees," and defines them as unfair or deceptive fees charged above the good or service's base cost. These fees are for additional goods or services that have too little to no added value to the consumer, or that the consumers would reasonably assume to be covered within the overall advertised price. For example, it is estimated that consumers have lost at least \$28 billion per year in payment of additional fees for cable service in 2018.<sup>281</sup> In 2021, the Consumer Financial Protection Bureau (CFPB) reported that fees for overdrafts and nonsufficient funds in consumers' bank accounts had hit approximately \$15.4 billion in bank revenues the prior year.<sup>282</sup> The CFPB also issued a report showing that late fees on credit cards had cost consumers \$12 billion in 2020.<sup>283</sup>

Junk fees have wider implications for the overall market, increasing inequality and harming competition. While junk fees can eat away at the income and savings of all Americans, low-income communities and communities of color are disproportionately burdened by such fees. In addition, hidden fees can cause consumers to choose a good on the basis of a lower perceived price, and which they may not otherwise have chosen if they had been given the full price up front.

#### Junk fees are harming vulnerable communities

Empirical analysis in recent years has shown that low-income communities and communities of color are hit the hardest by junk fees. For example, a 2022 analysis from the Consumer Financial Protection Bureau (CFPB) found that on average, consumers residing in the lowest-income neighborhoods paid two times more

in late credit card fees than those living in the highest-income neighborhoods. Additionally, in majority-Black neighborhoods per 2010 census data, the average credit card late fees paid in 2019 were higher when compared to neighborhoods where Black individuals were in the minority. <sup>284</sup>

Other evidence shows how consumers of color, as well as low-income and young consumers, are adversely impacted by bank overdraft fees. A 2021 report from the Financial Health Network (FinHealth) shows that Black and Hispanic or Latino households spent \$1.4 billion and \$3.1 billion in overdraft fees, respectively, in 2020. In addition, FinHealth found that the probability a low- to moderate-income household had an overdraft on their checking account was almost twice as high as that of a high-income household in 2020. They also found that young people, who on average have less wealth and income than older Americans, were more likely than people aged 65 and older to have an overdraft on their account.<sup>285</sup>

Drip pricing hides the true cost that consumers pay, which harms consumers and hurts businesses that provide transparent pricing

By diminishing pricing transparency, businesses can deceive consumers from selecting the lowest overall price. This practice has been termed "drip pricing," where businesses will show an initial base price, and subsequently add on fees as the consumer moves through the online purchasing process. At the end of this process, the price that the consumer ultimately pays for the good or service is higher than the initial base price. The consumer also may not be able to compare this final, true price with other providers' final prices without taking additional time to move through the other providers' purchasing process. Research has found that consumers may be unwilling to look into other

providers' offers after spending substantial time on the drip pricing purchasing process. 286,287,288

It follows that businesses engaging in transparent pricing could also be harmed by this practice, as transparent prices may appear higher than prices with hidden fees. This creates a perverse incentive where businesses feel the need to adopt drip pricing to protect their market share and avoid the opportunity cost of forgoing the higher profits that the practice offers. <sup>289</sup>

Enhancing regulation around junk fees will improve market conditions for businesses and consumers alike.

Recent studies have shown that regulation of junk fees have led to improved outcomes for consumers. For example, one study examining impacts of the CARD Act regulation of credit card fees found that it saved consumers \$12.6 billion per year in borrowing costs.<sup>290</sup> The largest impacts of these savings were on the lowest credit score borrowers.<sup>291</sup> Research has also found that regulation that limits the magnitude of drip pricing increases consumer surplus.<sup>292</sup>

In the face of an increasing presence of junk fees, the Biden administration has introduced multiple measures to protect consumer well-being and increase competition among firms. In October 2022, the CFPB effectively banned the use of surprise overdraft fees and depositor fees by banks. <sup>293</sup> Then in February 2023, the CFPB proposed a rule to reduce the burden of excessive credit card late fees on Americans. <sup>294</sup> Most recently, in July 2023 the CFPB and Office of the Comptroller of the Currency (OCC) found that Bank of America (BoA) had illegally charged customers multiple overdraft fees on single transactions, opened unauthorized credit card accounts using their customers' sensitive information without their consent and charged fees on these

accounts, and withheld promised bonuses from credit card customers.<sup>295</sup> As a result, the CFPB ordered BoA to pay over \$80 million to consumers, as well as \$90 million in penalties to the CFPB.<sup>296</sup> The Biden administration's OCC also charged BoA \$60 million in penalties for the illegal overdraft fees. <sup>297</sup> Moreover, in administration's January 2023, the Biden Federal Communications Commission began requiring internet companies to display an easy-to-understand label that includes all monthly fees.<sup>298</sup> This will enhance business competition by helping customers see which companies offer the cheapest prices. The FTC has also issued notices of proposed rulemaking regarding companies' "deceptive or unfair acts or practices relating to fees" and has opened investigations and filed lawsuits against companies that have charged illegal junk fees or charged Black and Latino consumers higher financing costs and fees. <sup>299,300</sup>

### Expanding right to repair will increase market competition and support small business while enhancing economic freedom

In the past, Americans have been able to repair their own personal items, equipment, and vehicles themselves, or to choose to have these products repaired through an independent repair shop without restrictions. However, various modern manufacturers now limit this freedom, forcing consumers instead to pay a small number of major dealers to provide necessary parts or to repair their equipment. This comes at a large cost to consumers, including those who use the product for their business. According to the U.S. Public Interest Research Group, restrictions on repairs could cost an annual amount of \$40 billion in the United States, or \$330 per family on average. <sup>301</sup> In response to this wave of restrictive repair rules, 28 states across the political divide have introduced legislation that would codify the "right to repair" for a range of different products. <sup>302,303</sup> Expansion of the right to repair protects consumer choice, creates market conditions for greater

competition and lower prices, and allows for a better economic environment for small business—whether they be the product user or repair service provider.

Repair restrictions limit competition in the repair services market

Restrictions on repairs are imposed on what the Federal Trade Commission (FTC) calls "aftermarkets." These are markets for parts and services offered after the product's initial purchase. Some product manufacturers restrict the aftermarket to their company's supply of parts and services or will only allow an affiliate company to supply such parts and services.<sup>304</sup>

Current law prohibits companies from engaging in practices that restrict competition in aftermarkets. However, if these practices are deemed "procompetitive" a company may carry them out under current law even if they restrict competition. Procompetitive practices are those that a company needs to employ in order to ensure consumer and servicer safety, protect user privacy and data, allow for enhanced production and distribution, or maintain producer patented rights to their intellectual property. <sup>305</sup>

Frequently, producers cite a procompetitive reason for their need to engage in practices that restrict aftermarket competition. 306 However, the FTC found in their May 2021 report that these claims are not well-supported, which the FTC Chief Counsel for Development and Innovation reaffirmed in recent testimony. 307,308 Thus, manufacturers' reasoning for limiting competition does not appear to be as necessary for product success and safety as they claim. Meanwhile, companies imposing repair restrictions gain more market power and an unfair advantage over competing firms in the aftermarket. These practices can harm the U.S. economy through multiple sectors, and limit access to prosperity for a greater number of Americans.

Farmers, small businesses, and consumers have been harmed by restrictions on repairs

As repair restrictions have become more common, they can lead to a less diversified economy and market conditions where business stems from only a few large companies. The result is an economic system that yields profits primarily to high-earning suppliers, increases the cost burden of repairs on more Americans' incomes, and inhibits access to wealth-building opportunities in the United States by reducing small business formation.

Independent repair shops currently maintain a significant share of vehicles in the United States and support local economies. <sup>309</sup> They are also especially important to rural areas that do not have franchised dealerships. <sup>310</sup> Additionally, many Black-owned small businesses are in the repair and maintenance industries. <sup>311</sup> However, independent car repair businesses face limited access to the repair market due to the proliferation of certain repair restrictions. For example, as cars become increasingly reliant on proprietary software, these businesses face barriers to operation that can threaten their important role in the U.S. economy.

Farm equipment is another area where repair restrictions are negatively impacting vulnerable consumers and small businesses. As equipment like tractors and combines have become increasingly technologically advanced, farmers have called out manufacturer business practices that have stopped them from repairing their own equipment. Being unable to make these repairs themselves can force farmers to wait multiple days for the company's required servicer to come and complete repairs. This loss in workdays can lead to a significant loss in revenues.<sup>312</sup>

Finally, there is increasing concern regarding the right to repair for wheelchairs and medical equipment. Currently, some electric wheelchair suppliers are limiting access to wheelchair components, as well as service manuals.<sup>313</sup> More broadly, since the COVID-19 pandemic, advocates have been calling on medical equipment manufacturers to allow for more accessible repair options, including allowing consumers to repair medical products at home.<sup>314,315</sup> Restricted access to such repairs leave disabled as well as ailing Americans with little options for maintenance, posing dangers to their health.

The Biden administration has acted through executive order and agency efforts to protect consumers, farmers, and small businesses from harmful repair restrictions

Right to repair policies build off of the Biden administration's work to increase economic liberty for all Americans by strengthening competition. As part of a broader whole-of-government effort to end anticompetitive behavior in the economy, the Federal Trade Commission has increased its enforcement of companies that violate the right to repair. Tor example, in summer 2022 the FTC issued orders for three companies, including motorcycle manufacturer Harley-Davidson, to remove clauses voiding their warranties if consumers used independent repair shops. This increased enforcement comes as other federal entities crack down on anticompetitive behaviors that harm consumers and small businesses. Increasing competition, including through the right to repair, helps grow the economy by giving consumers the freedom to choose where to take their business.

### The increasing presence of private equity is harming jobs and services in the real economy

Private equity investing—when investors purchase partial or full ownership of companies whose shares are not listed on a public stock exchange—was once seen as a "niche" investment practice taken up by financial institutions, corporations, or individuals with high levels of wealth. <sup>321,322</sup> However, shifts in private equity investing began to occur in the early 1980s, as firms specializing in private equity fund management began to emerge. <sup>323</sup> Today private equity firms are described as a "critical component" of the greater financial system. <sup>324</sup> S&P reports that private equity firms' assets under management (AUM) grew by over 400% between 2010 and 2022, reaching \$7.6 trillion in June of 2022. <sup>325</sup>

In addition to their increased influence in the financial sector, growth in private equity firm acquisitions is impacting key components of average Americans' lives. For example, private equity firms currently own at least 30% of all for-profit hospitals nationwide. Moreover, private equity investment and ownership has become highly prevalent in low-wage industries including the retail and food service industry, affecting jobs, earnings, as well as prices and quality of goods and services.

#### Fund structure rewards managers for high-risk deals

There is concern among regulators that the common private equity fund structure incentivizes managers to seek out investments that have a higher risk of failure, as they aim to maximize profits. 327 In order to raise equity capital to make investments or acquisitions, private equity firms commonly set up a fund under a limited partnership with investors. The structure of these limited partnerships exposes general partners to low levels of risk, while allowing them to reap high rewards for a profitable deal. Individuals managing the firm act as the general partners of the fund, while outside investors act as the limited partners. The limited partnership yields the general partners greater control over the fund's management. Although the majority of the fund consists of investments from these outside investors, general partners

receive a larger share of the profits relative to their investment share. Typically, they earn carried interest on the returns equal to 20% of profits from fund investments as well as fund management fees. Therefore, private equity fund managers will have a small loss relative to the fund if the investment does not yield returns. However, fund managers will gain substantial profits relative to their investment, and those profits increase with higher returns, thus incentivizing managers to make riskier investments. 328,329,330

Private equity purchases are often highly leveraged, and place the burden of debt repayment on the acquired company

Concerns over high-risk behavior also stem from the level of debt that private equity firms use when making acquisitions. Private equity acquisitions tend to be carried out through "leveraged buyouts," or buyouts where fund equity makes up a small fraction of the acquisition, with the larger fraction coming from debt. Often, 70% of the buyout will be carried out with debt, and 30% with equity.<sup>331</sup> The debt then frequently becomes part of the acquired company's liabilities, which it must pay off.<sup>332</sup> When revenues from the acquired entity are insufficient to pay off this debt, the result can be bankruptcy for the acquired entity, which in turn leads to job loss and loss of the services that the acquired entity had provided to the economy.<sup>333</sup> Policymakers, economists and advocates have noted the impact that such deals have had in major sectors including retail, food service and health, as discussed in greater detail below.

Private equity acquisitions are concentrated in low-wage industries, threatening job stability and pay for workers

Private equity firms have tended to focus their acquisitions on lowwage industries. In 2021, 1.5 million food service workers were employed by companies owned by private equity firms. The industry with the second greatest number of workers under a private-equity-owned company was the retail industry, at 1.1 million workers, followed by the security and health care industries, which collectively held 1 million workers.<sup>334</sup>

While the number of workers in private equity-owned firms need not be a concern on its own, recent empirical evidence has shown that private equity firm ownership can harm worker wages and employment. For example, on average, workers' wages have been found to decline by 1.7% after a private equity acquisition.<sup>335</sup> Moreover, according to one study, within the first two years of private equity ownership, a company's employment declines by 4.4%.<sup>336</sup> Other studies have found high concentrations of job loss in the retail industry, and a net decline in employment among restaurants, as a result of private equity buyouts.<sup>337,338</sup>

Private equity acquisitions' impacts on services are especially concerning in the health care sector

Private equity's presence in the health care sector has been building since the 1990s, and has expanded its reach to different areas of the health care system. Previously, the health care sector was predominantly made up of nonprofits and public entities. However, private equity is increasingly becoming a major player. Beginning with nursing homes and hospitals, which provided firms with consistent, large revenue streams, private equity has since expanded into other areas of the health care system including investment in or ownership of private physician practices, urgent care clinics, and independent emergency departments. Hotably, private equity investment in health care increased from \$5 billion to \$100 billion between the years 2000 and 2018.

While research on the impact of private equity ownership of medical institutions is limited, some evidence has pointed to concerning trends. For example, private equity acquisitions of hospitals appear to lead to lower-quality care when there is a high concentration of private equity ownership in the market. 342 Research has also shown that private equity ownership of health care establishments, ranging from private physician practices to nursing homes, has been associated with higher profits paired with potential over prescription of procedures, and shortages in medical devices. 343,344 A study specifically focused on the impact that private equity acquisitions have on nursing homes also found that private equity ownership was associated with higher rates of mortality, reduced compliance with Medicare standards of care, greater incidence of negative outcomes for patient health, and lower ratios of nurses to patients in their care. 345

Given these results, an area of particular concern is private equity firms' increasing ownership of hospitals in underserved areas. A recent study found that hospitals under private equity ownership in 2018 tended to be in lower-income and rural areas. In line with the research referenced above, they also tended to have lower patient satisfaction scores and had a lower ratio of employees-per-occupied beds. 346 Recent studies have found private equity-owned rural hospitals also tended to be more concentrated in the south, with Texas having the greatest number of private equity owned hospitals and New Mexico having the greatest number of private equity-owned hospitals relative to total hospitals in the state. 347

### CHAPTER 5: ECONOMIC AND HEALTH RISKS POSED BY CLIMATE CHANGE

Climate change represents an existential threat to our way of life, including massive economic damages and health consequences from extreme events and transition risks as we move to clean energy. While fires in the western United States have been increasing in magnitude and frequency over the last several decades, the large fires in Canada in June 2023 showed that the smoke from these climate-exacerbated extreme events can and will increasingly affect the eastern United States. As more smoke impacts large population centers in the east, there will be potentially large impacts on our health care systems and in particular, on vulnerable populations' health, such as increased incidence of childhood asthma and increased heart and lung problems in historically disadvantaged groups.

To address the underlying driver of climate-exacerbated extreme events, the Biden administration has been at the forefront of regulating carbon emissions. The standards that the Environmental Protection Agency (EPA) proposed on May 11, 2023 for fossil fuel power plants will improve public health and provide substantial economic benefits while tackling the climate crisis.

Physical and transition risks from climate change jeopardize everyone's finances, from businesses to households and pension funds to local and Tribal governments. However, these different groups have significantly different capacities to respond to climate related challenges. To inform decision making across scales, data on climate risks and a workforce capable of interpreting that data accurately are sorely needed.

Climate change also threatens our public lands and the economic benefits that they provide through tourism, the recreation economy, and health advantages of being outside. Furthermore, catastrophic fires and other climate change impacts can harm these public lands, and they can shift forests from acting like sponges and soaking up carbon to being sources of atmospheric carbon, accelerating climate change and increasing wildfire risk.

#### Climate-exacerbated fires lead to massive economic damages

Climate change is making air quality worse around the country and across the globe, which is directly making people sicker. Within the United States, one clear and visible cause of poor air quality are the more frequent, destructive, and longer-lasting wildfires that fill the air with harmful smoke, including particulate matter.<sup>348</sup>

Since the 1980s, but especially in recent decades, western states have felt the increasing negative impacts of wildfires as they bum for longer and with more frequency.<sup>349,350</sup> The smoke that blanketed the eastern United States in early June 2023 underscores that the impacts of climate change and the fires it exacerbates will be felt nationwide.<sup>351</sup>

Altogether, research shows that wildfires in the United States cause tens to hundreds of billions of dollars in damages each year, which is a low-end estimate as there are many related market and non-market costs that we do not yet have reliable estimates for. 352 Direct expenditures include suppression and evacuation costs, and direct losses include natural resources; structures and property; utilities and infrastructure; loss of life, injuries, and health impacts from smoke; and economic impacts during incidents. Indirect economic costs are even more numerous. Indirect expenditures and loss of value are felt in our ecosystems and landscapes,

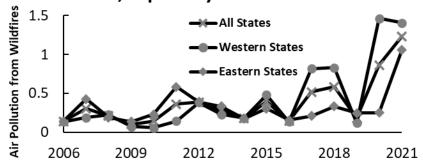
including necessary ecological restoration and loss of carbon capture abilities by the environment. Economic costs and losses include increased insurance premiums or loss of coverage and economic consequences across a range of labor and property concerns. Mitigation investments to try and address rising health and wellbeing costs are large and growing.

#### People face substantial health consequences from fires

Climate change worsens air quality through increased smoke from more frequent fires, hotter temperatures that increase smog, and many other effects. 353,354 Higher levels of air pollution, especially from fires, lead to premature deaths, more frequent pre-term births, and more asthma attacks, lung infections, and heart disease. 355,356,357,358,359,360 For wildfires in particular, the effects of heavy smoke on public health are harmful and most obvious, but fires also contribute to less visible but still damaging air pollutants that are more widespread, affecting air quality across the United States. 361

The following graph shows that air pollution from wildfires has increased since at least 2006, with pollution from fires in western states driving the overall increase. Now eastern states are also seeing how damaging wildfire smoke can be to daily lives. <sup>362</sup>

## Air Pollution from Fires Has Gotten Worse in Recent Years, Especially in Western States



Source: O'Dell et al, 2019

Note: "Air Pollution from Wildfires" refers to annual mean smoke concentration in the contiguous U.S. in micrograms per meter cubed.

#### Fires also lead to large labor and learning losses

Fires can lead to increasingly costly labor impacts and learning losses. For example, workers who primarily do their jobs outside, such as agricultural or construction workers, are at risk for missed or diminished work days due to smoke. In California, one of the states hardest hit by large U.S. wildfires, Latinos make up 71% of agricultural workers, so this population subgroup is particularly hard hit.<sup>363</sup> All workers are at risk if they cannot reach their place of employment due to fires shutting down roads or if they need to take time off work to tend to their family or neighbors in the aftermath of a wildfire. Some may even leave the area altogether to mitigate their own future risks or to get a fresh start. A recent study showed that wildfire smoke reduced earnings in the United States by an average of \$125 billion a year between 2007 and 2019, with a welfare cost of \$92 billion.<sup>364</sup> Counties who have an above-median proportion of Black residents experience earnings losses that are about 60% larger. Students also suffer learning

losses if smoke or fires cause school closures or disruptions or if a family must temporarily evacuate.

#### Fires interrupt business and diminish property values

Fires directly and indirectly impact businesses and physical assets. Businesses' property and equipment are at risk from fires, but even if physical assets are not directly harmed, companies may face disruptions and supply chain issues due to evacuations, modified work hours due to wildfires and smoke, or road and transportation closures. Furthermore, even if a fire does not directly threaten a business, the utilities a business relies upon or their infrastructure may be impacted. Until utilities are repaired, many companies cannot operate or generate revenue to pay bills. Certain industries, like agriculture, ranching, forestry, and real estate may have their key assets threatened by fires and smoke. This can lead to diminished property values and increased insurance premiums for businesses and residences. This increased risk has recently led to two major insurance companies declining to insure new properties in California, putting additional burden on the FAIR Plan, a statemandated insurance pool or a provider of last resort. 365

#### Fires can deteriorate water quality and lead to erosion

Fires can also affect the quantity and quality of water during a fire and for years following. When a fire is actively burning, ash and pollutants can be deposited on streams, lakes, and reservoirs, and vegetation that holds soil in place and retains water is destroyed. Following a wildfire, rainwater can flush contaminants into water supplies. The destruction of vegetation makes landscapes more susceptible to erosion, landslides, and even flooding. Both natural and human-made substances can then be washed into water bodies and impact drinking water quality, discolor recreational waters, and potentially increase the risk of harmful algal blooms. <sup>366</sup> Due to the unpredictability of wildfires, planning for managing floods

and treating polluted water is challenging, and drinking-water utilities need information and tools to better prepare.

Addressing wildfire risks requires a holistic approach

Addressing wildfire risks requires a comprehensive strategy focused on better funding and staffing, proactive interventions, and better preparation in affected areas. Financial and policy bottlenecks, which are hindering more prescribed burning, must be addressed. More prescribed fires to minimize available fuels are needed on a large scale, particularly in the western United States where this approach has been less common than in the east. <sup>367</sup> One reason why states are reticent is because smoke from these prescribed fires counts towards a state's Clean Air Act (CAA) compliance. Currently the Environmental Protection Agency (EPA) classifies smoke from wildfires as "exceptional events," meaning that regulators can seek waivers to exclude this pollution from CAA compliance, and a recent EPA proposed rule suggests including prescribed fires under this designation as well. However, the process to exclude smoke from CAA compliance is labor intensive and happens slowly, so alternative policy solutions should also be investigated. In concert with more funding for prescribed burns, addressing this policy barrier would encourage more "productive" fire on the landscape. More funding for other preventative forest management practices like thinning would further lower fire risk.

While lowering fire risk through management is essential, we will still experience more fires and their impacts and need increased capacity to respond to these fires to protect people and property. Primarily, more funding is desperately needed to pay and retain firefighters. Six-hundred million dollars was included in the Bipartisan Infrastructure Law for temporary increases in firefighter pay, which has covered wildland firefighters since

October 2021. However, that funding is expected to run out by the end of the fiscal year, and so the U.S. Forest Service, Department of Interior Office of Wildland Fire, and Office of Personnel Management have collaborated on a draft legislative proposal to address these issues. The key pillars are increases in base pay for all wildland firefighters, half pay for firefighters while on deployment to a fire during their rest hours, increased caps for overtime pay available to wildland firefighters, and dedicated paid leave for firefighters to address physical and mental health concerns after deployment to a wildland fire.

The United States must build upon the landmark climate investments passed last year to facilitate clean energy transmission, clean up our power sector, and foster international climate action, while also working to recruit and retain more wildland firefighters who work on the front lines to prevent and contain these climate disasters. 368,369,370

### The EPA's new standards for fossil fuel power plants will improve public health while tackling the climate crisis

Carbon pollution not only impacts the climate but also the health of communities.<sup>371</sup> Ensuring we have clean air will improve lives and pay dividends for the U.S. economy. On May 11, 2023, EPA proposed new carbon pollution standards for coal and natural gasfired power plants, which will deliver up to \$85 billion in climate and public health benefits over the next two decades.<sup>372</sup> These standards will reduce carbon dioxide emissions and other pollutants from new and existing power plants, helping the United States achieve its climate goals while ensuring that people can breathe clean air. Importantly, the EPA estimates that these updated rules will have little impact on families' electricity bills.

Cutting pollution and emissions will save lives and improve health, and the EPA expects this rule to provide \$85 billion in total climate and health benefits over the next 20 years

These regulations would help the United States avoid up to 617 million metric tons of carbon dioxide emissions over the next 20 years. Reducing fossil fuel emissions can profoundly impact people's lives, as many types of air pollution can cause serious and expensive health problems like premature deaths, pre-term birth, respiratory infections, and heart problems—all with associated household and health care costs. Cutting carbon emissions also reduces climate costs that come from changes in water supply and water quality due to both drought and extreme rainfall, the increased risk of storm surges and flooding along coasts, risks to the electric grid, and substantial disruptions to agriculture, including crop failures.

In 2030 alone, the lower emissions from this rule would provide \$5.4 billion in climate and between \$6.5 and \$14 billion in health savings

In 2030 alone, the proposed standards would provide between \$12 and \$20 billion in climate and health benefits and prevent substantial health and economic costs across the U.S., including:

- approximately 1,300 fewer premature deaths,
- more than 800 fewer hospital and emergency room visits,
- more than 300,000 fewer asthma attacks,
- 38,000 fewer school absence days, and
- 66,000 fewer lost workdays.

The new standards would avoid 89 million tons of carbon dioxide emissions in 2030, which would be comparable to taking 22 million gasoline-powered cars off the road.

These new standards will benefit nearly every state but will be particularly important for states that are still heavily reliant on fossil fuel power plants

Florida, Texas, and Pennsylvania would see the largest climate benefits from this regulation with \$557, \$529, and \$413 million in benefits respectively in 2030, but nearly every U.S. state would see tens to hundreds of millions of dollars in climate benefits.

The states with the largest potential climate benefits are also the states that would see the largest reduction in harmful carbon emissions. In Florida alone, the reductions in power plant emissions would be equivalent to keeping 2.3 million gasoline-powered cars off the road in 2030.

These new standards follow the best system of emissions reduction, utilizing cutting-edge technology

These new technology-based standards would require new fossil fuel-fired power plants to include technology in their construction that reduce harmful emissions. The proposal also establishes emission guidelines that include technological adaptations for states to pursue that would aim to limit carbon pollution from existing fossil fuel power plants.

As required by the Clean Air Act, this proposal balances the reduction in emissions alongside other factors like the available sources of energy, the costs of adaptation, and the range of existing technologies like carbon capture and storage and clean hydrogen. The EPA is also proposing to repeal the Affordable Clean Energy rule from 2019 because it does not reflect the best system for emissions reduction.

The economic benefits will likely be much larger, as reducing other pollutants can lead to better health outcomes

While the national-level health benefits are already large, the current calculations do not include the benefits of:

- fewer people having chronic responses to air pollution,
- the health effects from air pollutants not examined in the EPA's initial study,
- ecosystem effects,
- and visibility impairments, which affect outdoor recreation and national parks.

For context, the eastern U.S. experiences some of the largest fossil fuel-associated air pollution mortality globally, including 876 excess annual deaths of children due to lower respiratory infections across North America.<sup>373</sup> The impacts of avoiding these health and ecosystem issues are significant but are not included in the EPA's current analysis.

Reducing pollution from power plants will benefit many communities of color that historically have been exposed to dangerously high levels of pollution

Coal plants subject to the proposed standard are disproportionately located near Black communities and communities that are two times below the poverty level. The EPA is also aware of two existing power plants within Tribal jurisdictions that are potentially affected by this proposal. One is the Four Corners Steam Electricity Station on the Navajo Nation, which is within New Mexico's boundaries and will be retired in 2031. The other is Bonanza on the Uintah and Ouray Reservation located within Utah's boundaries and will retire in 2030. The new standards will help ensure localities most negatively affected by carbon pollution will become cleaner and healthier for their residents.

This proposal is also projected to reduce mercury emissions, which in turn will reduce mercury in fish that live in in waterbodies near affected powerplants. This reduction will most benefit communities that locally source their own food near affected powerplants, including minority and low-income households who are more likely to eat fish from the affected areas. Together, the EPA's new proposed rules for fossil-fuel power plants reflect a common-sense and best available technology approach to curbing emissions. This will improve Americans' health and economic well-being across the nation.

#### Importance of climate risk inclusion in financial modeling

Climate change threatens everyone's finances, from businesses to pension funds to local and Tribal governments. These risks stem from physical climate risks like extreme events, heat, and precipitation, and from transition risks as the world moves away from fossil fuels and certain assets that are reliant on fossil fuels become stranded assets. Simultaneously, environmental, social, and governance (ESG) investing presents an opportunity to meet a market demand for sustainable and responsible investing with \$8.4 trillion under management that uses these sustainable methods.<sup>374</sup> Thus, including climate-related risks and opportunities in financial modeling of all kinds is incredibly important, and more information and workforce capacity to quantify these risks and interpret them for decision making are sorely needed.

Businesses face real and large financial risks from climate change

Businesses face substantial financial risks from the physical risks that climate change poses and from transition risks as the world moves away from fossil fuels. Physical assets owned by businesses and the supporting infrastructure and utilities that they

rely upon are at increasing risk from extreme events, stressed energy grids, and other climate impacts. A recent study found that 215 of the world's largest companies face nearly \$1 trillion in combined risk from climate impacts.<sup>375</sup> The majority of risk is concentrated in the financial sector with almost 80% of risk reported there.

Financial markets are also threatened with \$283 billion at risk in the U.S. as the world transitions away from fossil fuels. <sup>376</sup> Financial holdings that are tied to fossil fuel extraction or use could become stranded assets as the world moves away from those energy sources. A recent study in *Nature* calculated that under reasonable climate policy expectations, the present value of lost profits in the upstream oil and gas sector exceeds \$1 trillion dollars. <sup>377</sup>

Climate change poses substantial risks to pension funds and individuals

Most of the market risk from stranded assets falls on private investors, especially in the OECD nations, with substantial exposure through pension funds and financial markets. A huge proportion of these individuals are in the United States and the United Kingdom, where individuals own 86% and 75% of potentially stranded assets in each respective country. This is in direct contrast to China, where 80% of potentially stranded assets are owned by the government.

Natural disasters are associated with increases in credit card debt, debt collection, mortgage delinquency, and foreclosure. Households that are already financially unstable or are part of historically disadvantaged communities tend to experience problems like the effects of hurricanes most seriously and are more likely to live in areas more susceptible to climate impacts. 378,379

Local and Tribal governments face similar climate risks with a limited capacity to respond

Local governments also face significant climate-related risks. Municipal budgets can be impacted, and large-scale community infrastructure can be destroyed, such as roads, bridges, and public buildings. A 2022 study showed that California wildfires between 1990 and 2015 had a negative and substantial effect on municipal budgets and caused a long-term increase in local government spending. 381

Local and Tribal governments may also face transition risk if their finances are tied to industries that emit substantial greenhouse gases. For example, U.S. municipalities, states, and Tribes receive \$85.2 billion in revenue each year from fossil fuels.<sup>382</sup> These revenue streams are expected to decline with or without climate action, but the uncertainty of the low-carbon transition poses additional risks to communities that have historically relied upon this income to support infrastructure, education, and public health.

To inform decision making across scales, more climate data is sorely needed

Climate-exacerbated disasters are pocketbook issues, and to prepare and respond, people need more information and tools. We are at the infancy of combining catastrophe risk models used in the insurance industry with long term climate data from the Intergovernmental Panel on Climate Change and other sources of projections to provide information on climate risk. Standards for these data and methods are needed to ensure transparency and robustness. In addition, there is a large amount of uncertainty in any of these future projections, and so standards, and potentially regulation, would be helpful in providing direction on which version of the future is correct.

The price tag for physical risk projections of fires, floods, or extreme heat at a specific physical location can reach into the millions. While the information generally needed to feed into these calculations is publicly available, the computing power and expert knowledge needed to accurately take global climate data and downscale it to the local level create large barriers to entry. Small municipalities, utilities, Tribes, and others with fewer resources are therefore at a disadvantage. 383

Additional labor force capacity to interpret and utilize this information in decision making is essential to ensure broad and appropriate usage. As previously noted, climate-exacerbated extreme events hit the poor hardest and unmapped flood areas have an overrepresentation of people of color, and so additional resources and workforce development to handle climate data needed for planning and risk assessment should be aimed at these historically disadvantaged areas and communities.<sup>384</sup>

#### Public lands boost the economy and outdoor recreation

Public lands and their associated resources create economic opportunity and competitive advantage and improve health outcomes. Conservation broadly supports state and local economies and rural communities with tourism, outdoor recreation, and retirees accounting for large economic benefits.

#### Public lands can boost local economies

Public lands (including national parks and monuments) can boost local economies, drawing tourists and others, including retirees, seeking recreational and quality of life opportunities. In 2021, the outdoor recreation economy accounted for 1.9% (\$454 billion) of U.S. gross domestic product (GDP).<sup>385</sup> At the state and local level, outdoor recreation generates \$59.2 billion in state and local tax revenue annually.<sup>386</sup> Non-labor income is a major driver of growth

in local western economies, coming from dividends, interest, rent, and government transfers to individuals (such as social security).<sup>387</sup> Much of this growth has a significant age-related aspect and is tied to the aging U.S. population.

Counties with public lands are experiencing net positive migration and tend to have more ethnic and racial diversity. <sup>388</sup> Attracting new people is integral for the long-term health and strength of the West's economy, and in-migration to the non-metro West experienced 49% of all population growth from net in-migration from 2000 to 2010. <sup>389</sup>

Counties with public lands see faster employment and income growth

Areas with public lands in the United States saw increased economic growth across several metrics relative to other areas. For example, western non-metropolitan counties with more than 30% of the county's land base in federally protected status, such as national parks, monuments, or wilderness, saw jobs increase by 345% over the last 40 years in contrast to counties with no federal public lands that saw employment increase by only 83%. 390 These same counties with large shares of public lands also saw faster population and personal income growth on average.<sup>391</sup> The best performing counties are benefitting from nearby public lands in several ways, such as by supporting commodity sectors like timber, increasing tourism and recreational spending, and attracting entrepreneurs and retirees. High wage service industries are also using the West's public lands as a recruiting tool for innovative, high-performing talent who want to work near where they can enjoy outdoor recreation and natural landscapes. The Economic Research Service (ERS) of the U.S. Department of Agriculture found that job earnings in rural counties where

recreation is a key industry are \$2,000 more per worker than workers in rural counties not focused on recreation.

The bipartisan Recovering America's Wildlife Act (RAWA) would encourage this growth by investing \$1.3 billion in state fish and wildlife agencies and another \$97.5 million in Tribal wildlife conservation efforts. Through this investment, RAWA would generate 33,600 direct jobs every year in industries ranging from construction to forestry, in addition to bolstering the outdoor recreation sector.<sup>392</sup>

#### Public lands influence local fiscal policies

Public lands also influence local fiscal policies, and New Mexico's management of revenue from state trust public lands is model fiscal policy. New Mexico invests all nonrenewable revenue generated from state trust lands in the Land Grant Permanent Fund (LGPF), which means nearly 90% of all state trust land revenue is allocated to the LGPF. Smart fiscal management has grown the LGPF to more than \$23 billion as of June 2021.<sup>393</sup> This fund provides stable revenue (in FY2020 \$784 million) to state beneficiaries, such as public schools. Distributions are expected to surpass \$1 billion annually in the coming years.

#### Public lands play a critical role in improving health outcomes

The ERS of the U.S. Department of Agriculture found that tourism and recreation boost local economies while reducing poverty and improving education and health outcomes. Nearly half of Americans get less than the recommended physical activity, and public lands and parks play a critical role in encouraging healthy movement, particularly outside. Public lands and open space lowering stormwater management costs and by protecting underground water sources of drinking water. <sup>394</sup> Protecting wild animals and vegetation provides innumerable additional benefits

to nearby communities, and RAWA directs important investments towards accomplishing these goals.

### Climate change poses a risk to continued health of U.S. public lands and the economic benefits they provide

Climate change threatens the continued health of U.S. public lands and their associated economic benefits. Extreme events exacerbated by climate change poserisks to the physical wellbeing of public lands from fires to hurricanes. Disasters may also hinder access to public lands if infrastructure is damaged or travel is limited. Hotter temperatures and smoky skies also limit the quantity of days when outdoor recreation is possible and healthy.

### CHAPTER 6: STRENGTHENING STATE AND LOCAL ECONOMIES

As the economic recovery from the COVID-19 pandemic recession transitions into the current economic expansion, policymakers must ensure that economic growth is shared equally throughout the United States. Due to the landmark bills passed in the last Congress, and as a result of administrative actions taken by the Biden administration, there are new opportunities to expand employment in clean energy sectors, help address long-running health care worker shortages, spur local economic development, and improve housing affordability across the country.

## The United States must expand investments in career and technical training to meet the needs of the clean energy transition

As the United States continues to transition away from fossil fuels and adopt cleaner forms of energy, there is a growing need for workers in a wide range of skilled trades and occupations to help build and maintain this new energy infrastructure. This work will include both solar installers and people who build wind turbines, as well as electricians to help expand the transmission grid and skilled contractors who will build new power plants, EV charging stations, and other clean energy infrastructure.

This need for trades workers creates an opportunity for millions of Americans to get good-paying jobs without having to earn a four-year college degree. In addition, new investments in clean energy infrastructure will be spread out across the country instead of being concentrated in a few coastal cities, meaning more communities stand to benefit from these new career opportunities.

The clean energy workforce is growing rapidly, and the United States currently does not have enough workers ready to meet the need

Even before the passage of the landmark climate provisions in the Inflation Reduction Act, the clean energy workforce was growing faster than the overall economy. From 2021 to 2022, the Department of Energy found that job growth in clean energy roles grew by 3.9%, outpacing the national employment growth rate of 3.1% over that same window.<sup>395</sup> The same report found that half of the new workers in the energy sector were women, which if the trend continues will help counteract the significant gender imbalance in the sector. <sup>396</sup> Looking forward, some estimates find that the investments in the Inflation Reduction Act will help create as many as 9 million new jobs in areas like clean energy, clean manufacturing, clean transportation, building efficiency, environmental justice, and natural infrastructure. 397,398 While forecasting the exact number of jobs created by a policy is difficult, when paired with the recent trend in job growth it is clear that jobs in the clean energy economy will grow significantly in the United States in the coming years.

This expanding need for people who can build and maintain clean energy infrastructure is occurring simultaneously with a long-term decline in the number of building trades workers, brought about by demographic trends and lagging investment in worker training. The construction sector is still recovering from massive employment losses during the Great Recession, which contributes to a broader shortage of trades workers throughout the economy. For example, the Bureau of Labor Statistics forecasts that the United States will average 80,000 job openings for electricians every year until 2031, reflecting the growing need for these workers and the trend of older workers retiring.

Community colleges and apprenticeship programs will play an increasing role in growing this workforce, including for people currently working in some fossil fuel industries

While headwinds will remain when it comes to filling clean energy roles, there are proven models in community colleges, trade schools, and registered apprenticeship programs that can train the next generation of workers to meet these needs. The Infrastructure Investment and Jobs Act is already investing \$72 million in programs training people for clean energy careers outside of four-year degree institutions. <sup>402</sup> The Inflation Reduction Act (IRA) also supports the successful Registered Apprenticeship program that is funded through joint union and employer contributions. <sup>403</sup>

While these programs have demonstrated success in training new workers in an array of clean energy occupations, there is an emerging need to identify occupational training opportunities for people currently working in many fossil fuel industries. While it will take time, the overlapping skillsets required between people working in hydraulic fracturing and geothermal power, or between oilfield work and clean hydrogen production suggest a viable pathway for an employment transition for current energy sector workers. 404,405,406,407 As training programs expand to help meet the needs of the energy transition, policymakers must ensure that training is offered to help match current energy workers with similar positions focused on clean energy. Some recent data show that green job opportunities are growing in areas with higher shares of fossil fuel extraction workers, which is promising for the prospects of job availability for these newly-trained workers. 408 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. 409

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

Making sure more people can train for and attain clean energy jobs is especially important given the opportunity these jobs offer for higher salaries that can springboard more Americans into the middle class. While the broad range of clean energy occupations pay different wages depending on the sector, electricians, construction managers, and wind turbine technicians all earned close to or above the national average salary. 410 One recent study also found that job listings for clean energy occupations were both more common in areas that currently rely on fossil fuel extraction and were in occupations that pay above the national average. 411 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. 412,413

There is already momentum for unionization in the energy field. The 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%. 414 The report also found that unionized energy sector employers had an easier time filling job vacancies, likely due to the better pay, benefits, and worker safety available in unionized workplaces. 415

### Addressing health worker shortages in rural areas can improve population health while creating job opportunities

Addressing the rural health care worker shortage and creating pathways to allow supply to better meet demand are critical in protecting and improving the health and economic stability of rural communities. One important solution to the ongoing shortage are "grow your own" programs that look to train and equip local residents to fill shortages in their own communities. Americans

deserve access to health care regardless of where they reside, and addressing the rural health care worker shortage will mark a significant step toward creating that equity.

In total, 90% of rural counties face health care workforce shortages, jeopardizing health and economic outcomes

Rural areas in the United States are facing a health care shortage. Specifically, nine in ten rural counties face primary care workforce shortages in geographic areas and population groups. <sup>416</sup> In some areas, staffing shortages among all health care providers have even become severe enough to lead to hospital closures. Since 2010, 136 rural hospitals have closed, driven in part by lack of staff. <sup>417</sup>

The shortage of health care providers has significant negative impacts on the health and economic security of rural areas. Reduced numbers of available physicians have led to a 24% growth in wait times since 2004 and hospital closures have forced rural patients to travel 20 miles more on average to receive common care services. 418,419 Longer wait times and hospital closures cause patients to delay care due to travel or time restrictions, leading to worse health outcomes and greater mortality, as patients experience avoidable illness due to lack of treatment. 420,421 Traveling extended distances also has individual economic costs, including more time taken from work, child and family care arrangements, and costs for gas, food, and lodging. Additionally, greater rates of illness in a community can harm productivity, costing the economy hundreds of billions of dollars annually due to absence or the effects of working while sick. 422 Finally, each physician in a community generally supports multiple jobs and brings added revenue to the economy and the loss of these positions can decrease available employment and hinder economic growth.<sup>423</sup>

The demand for physicians is growing, but supply challenges are worsening the shortage in rural areas

The health care workforce shortage is being driven by growing demand for providers coupled with an insufficient supply of medical professionals. The main driver of growing demand is the aging population, as older adults require greater amounts of medical care. All Rural areas already have a higher rate of older residents aged 65 and older (19%) than urban areas (15%), and those rates are expected to grow significantly in the coming years. By 2034, the U.S. population of people aged 65 and older is expected to grow by more than 40%.

Challenges in the training and distribution of doctors are preventing supply from meeting rising demand in rural areas. Across the country, the number of medical school students is not rising fast enough to meet the growing need for doctors. 427 Additionally, students who do go to medical school face an extremely limited number of residency slots. 428 In rural areas, this lack of providers is magnified because these areas often struggle to attract and retain physicians as the areas themselves often have smaller economies, under-resourced schools, or other challenges that can lead doctors to opt for larger cities. 429 Often, these areas rely on physicians who are born or raised in a rural area as they are most likely to return to practice in these rural regions. However, the number of medical school entrants from rural areas declined by 28% from 2002 to 2017, potentially leading to a smaller number of medical school graduates who want to work in rural medical centers and heightening the need to focus on recruiting more rural medical school matriculants to improve these numbers for the future. 430

Health worker shortages in rural areas pose particular risks to pregnant women, communities of color, and those on Tribal lands

Groups that have greater health care needs or are over-represented in rural areas bear a greater share of the burden created by health care worker shortages. Rural areas have a lower concentration of internal medicine physicians and OBGYN physicians compared to their female population aged 15-to-29.<sup>431</sup> This increases pregnancy risks for mothers in rural communities since lower levels of provider accessibility in a region is correlated with higher rates of maternal mortality.<sup>432</sup>

Furthermore, people of color are even more likely to feel the burden of lower access to health care in rural areas. Almost 1 in 4 rural Americans is a person of color or Indigenous person and rural communities of color usually experience the biggest health risks. 433,434 Limited access to health care is one of the reasons for higher health risks in non-white rural communities. 435 This is especially true for Indigenous communities on Tribal lands, where the Indian Health Service has long struggled with staffing shortages. Today, the overall vacancy rate for providers is 25%. These shortages are exacerbated by lower salaries, housing shortages and difficulties attracting providers to rural locations. 436

Grow your own programs can create career pipelines into key health occupations for people from rural areas

Individuals with rural backgrounds are more likely to return to these areas to practice medicine. <sup>437</sup> Surveys have found that 30-52% of providers with rural backgrounds return to rural areas to practice, compared to only 11% of doctors overall. <sup>438,439</sup> Because of this, programs that focus on empowering rural students to pursue medicine and return to rural areas, known as "grow your own" programs, are a key component of bolstering the rural health care workforce. Many medical schools have already begun to

adopt this approach, with schools in largely rural states such as Alabama and Mississippi creating programs to recruit and support rural students. 440,441 These programs have already shown signs of success. Alabama's program has seen the vast majority of students who complete the program go on to practice in the state, mostly in rural areas. Mississippi's program has also seen success, adding 66 rural primary care doctors to the health care workforce to date with over 80% of those doctors remaining in rural areas even after their commitment to practice in a rural area, which is a required part of the program, runs out. 442 Because of the success seen with these programs, and the critical need to increase the number of rural physicians, expanding access to these programs to reach more students could play an important role in reducing the rural health care worker shortage.

Other initiatives that address the health care worker shortage can supplement grow your own programs

In addition to "grow your own" programs, a number of other initiatives have been enacted or introduced to reduce the shortage of health care workers both in rural areas specifically and across the nation. Existing national programs include the National Health Service Corps, which incentivizes newly trained doctors to work in high-need areas in exchange for debt relief. 443 Additionally, to address the impact of limited residency programs, the Teaching Health Center Graduate Medical Education Program provides funding for more primary care residencies, with a focus on rural and in-need areas. 444 Proposed programs include the Health Care Workforce Shortage Initiative, introduced in the FY24 budget, which would fund awards used to encourage innovative approaches to health care workforce recruitment and training, with an emphasis on supporting rural and underserved areas. 445 Similarly, Health Profession Opportunity Grants, if refunded, would provide training pathways to low-income individuals to pursue non-physician health care roles such as nursing or medical assisting. 446,447

# Investing in anchor institutions can foster economic growth and technological innovation through potential agglomeration effects

Research shows that *anchor institutions*, such as universities, hospitals, and national laboratories can play an outsized role in local communities and economies, including by providing additional benefits outside of their core functions. The economics literature also points to how clusters of firms and other institutions focused on similar industries can build off of each other through in what are known as *agglomeration effects* to spur both technological innovation and regional prosperity. While the larger question of how to foster inclusive economic development is still unanswered, investments included in the CHIPS Act, Infrastructure Investment and Jobs Act, and Inflation Reduction Act can leverage these local effects to increase economic growth in more communities around the country.

Anchor institutions can play an important role in expanding economic opportunity in communities throughout the country

Anchor institutions are any large organization like a university, hospital, or government-run entity, like a national lab, that provides expanded benefits to their surrounding communities. These organizations provide direct benefits in terms of job creation and economic activity, especially since many sectors like education and health care are less impacted by the business cycle. One estimate from the Federal Reserve Bank of Philadelphia found that hospitals and higher education institutions directly or indirectly provided jobs for 18 million people while creating \$1.1 trillion in economic activity.

Additionally, anchor institutions can have a profound effect on the surrounding communities through local hiring and procurement practices. Recent efforts by hospitals and university systems in Toledo, Boston, Philadelphia, and Newark show that anchor institutions can create job opportunities for people in the surrounding communities while supporting local businesses through both training and outreach programs or even by adding additional services meant to meet unaddressed community needs. 452,453,454 The local spillover benefits of national labs are comparatively under-explored compared to the research that has been completed on universities and hospitals, in part because there are fewer national labs overall. 455,456

Leveraging agglomeration effects can both spur technological innovation and bolster local economies

Agglomeration effects describe the phenomenon where firms and other institutions in similar industries clustered near one another build off of one another to spur innovation and economic growth. 457 When studying agglomeration effects in the United States, researchers often highlight Silicon Valley, the research triangle in North Carolina, Boston, Seattle, and Pittsburgh as domestic examples of how geographic proximity, transportation infrastructure, and a shared pool of workers can create cycles of economic innovation. 458 One important study finds that patent filings increase when potential inventors move to these innovation clusters and benefit from the assembled resources. 459 This innovation increases overall economic growth for the country as a whole, while studies also highlight how these clusters also facilitate local economic growth. 460

It follows from these findings that the United States should seek to both bolster its existing innovation clusters while also cultivating agglomeration effects in other regions that have yet to experience these benefits. While starting such clusters from scratch could result in a net loss for the country, strategies that seek to build off of existing networks to cultivate innovation could increase both regional and national economic growth. 461,462

Federal investments in local economic development in the CHIPS Act, Infrastructure Investment and Jobs Act, and Inflation Reduction Act can leverage these effects to foster equitable economic growth

The major bills passed during the 117<sup>th</sup> Congress facilitate significant investments in infrastructure, scientific research, semiconductor production, and climate technology, which could both strengthen anchor institutions and spur more agglomeration economies around the country.

The CHIPS and Science Act's investment in semiconductor manufacturing can help spur agglomeration benefits as new facilities come online close to one another. The child care services that recipient firms must provide to their employees are an example of the sort of anchor institution benefit that can benefit the broader community. The bill also authorizes a significant increase in basic research funding, support for the national labs, and regional innovation hubs that can in turn bolster the local, regional, and national economic benefits described above. 464,465

The Inflation Reduction Act's landmark investment in clean energy technology has already spurred billions of dollars in investment throughout the United States. 466 Much of these new projects are not centered around the large coastal cities that have dominated discussion of U.S. growth drivers in recent years, highlighting how the clean energy investments in this bill can spread out clean energy development to a larger number of U.S. regions. In fact, states in the mountain west and southwest have

led the nationwide resurgence in manufacturing investment growth in electronics, computer, and battery technology that began shortly after the passage of the IRA and CHIPS and Science Act. 467,468

By supporting transportation infrastructure throughout the country, the Infrastructure Investment and Jobs Act will help aid the physical transfer of goods and people. The bill also funds regional hubs focused on clean hydrogen production, which, when taken together with funding from the IRA, could support regional economic development through clean energy technological innovation. 469

These investments offer an opportunity for the federal government to work with state and local partners to make sure that the coming decades center around economic growth that both grows the middle class and expands opportunities to more parts of the county. While a promising ingredient, leveraging anchor intuitions and agglomeration effects are just a few key inputs that the U.S. will need to accomplish the goal of broadened economic growth. It will take years, if not decades, before we can gauge the success of the landmark investments passed in 2021 and 2022, but these laws represent a strong down payment on inclusive and effective regional economic development.

## Guaranteeing housing affordability to ensure economic stability

For communities to thrive, people must have a stable and affordable place to live. Unfortunately, housing has become increasingly unaffordable in recent years, whether for renters or those looking to buy a home, and high housing costs have gone from being a largely coastal phenomenon to being a problem throughout the country. While recent steps by the Biden administration and Congressional Democrats have alleviated

some of the housing pressures that Americans face, the country will need significant action at the national, state, and local level to ensure housing affordability and stability for all.

Housing affordability is a challenge for Americans across the income spectrum

The cost of housing is rising at a more rapid pace than workers' wages. As the National Low Income Housing Coalition (NLIHC) reports from multiple studies, the rise in median rents in the U.S. have outpaced the rise in the national median household income, with the latter increasing only by 3.2%, and the former increasing by nearly 18%. Moreover, while lower-wage workers have seen the greatest percentage gains in their income when compared to all other income groups, that gain is not large enough to make up for the increase in rents.<sup>470</sup>

In addition, the Census Bureau found striking numbers on the amount of middle- to low-income renter households who are cost burdened, meaning that they spend over 30% of their monthly income on rent. As the Census notes, when a household is cost burdened by rent, they may be more likely to face difficulty in paying for their basic needs. Nearly 90% of households in the lowest-income quintile were cost burdened in 2021. Approximately 60% of renter households in the second-lowest income quintile were cost burdened in 2021, and about a quarter of all renter households in the middle quintile were cost burdened. Together, this means that nearly 20 million households were cost burdened in 2021, before the worst of the rent spikes due to COVID-19 had hit the market.<sup>471</sup> Viewed another way, if every renter who is cost burdened lived in a single state, it would be the largest state by number of households in the United States, at roughly double the number of households in Texas. 472

Rural and Tribal communities face distinct housing affordability challenges that policymakers must address

In 2017, HUD released a series of studies which consisted of the first ever nationwide review of American Indian and Alaska Native households on Tribal lands. Among their findings, one study reported that while 5% of all U.S. households live in housing with physical damages or complications, 23% of all households in Tribal areas have a physical issue with their housing. They also note that homelessness in Tribal areas consists of overcrowding among households, rather than Tribal members living without a place to reside. While only 2% of U.S. households were reported to experience overcrowding, 16% of Tribal households experience the same.<sup>473</sup> More recently, the representatives of Tribal governments and housing authorities testified before Congress, emphasizing the need to increase the housing stock.<sup>474</sup> As Chairman Heinrich has emphasized, the federal government's adequate provision of public funds is a step toward fulfilling our mandated responsibility to support the economic prosperity of Tribal communities. 475,476

Lawmakers and advocates are also concerned about affordable housing in rural areas. The "515 program" at the U.S. Department of Agriculture (USDA) requires rural multifamily building owners with low-interest USDA mortgages to maintain rent levels that are affordable for rural middle- and low-income individuals for the duration of the owner's mortgage. <sup>477</sup> USDA also has a rental assistance program for rural households, referred to as "Section 521," which subsidizes qualifying households' rent within Section 515-financed housing, to ensure rent makes up only 30% of those tenants' income. <sup>478</sup> However, Section 515 mortgages, which have 30- to 50-year terms, and which many owners entered into about 50 years ago, are beginning to mature. Following the loan maturity date, residents in these buildings will no longer qualify for the

Section 521 subsidies, and some building owners will no longer be required to set rents at an affordable rate. <sup>479,480</sup> According to the National Low Income Housing Coalition, over 21,000 rural units are within Section 515-financed buildings with mortgages maturing by 2027. <sup>481</sup> The number of affordable rental units that will be lost due to Section 515 mortgage maturity will only increase after that year. Chairman Heinrich and Democrats have been committed to resolving this issue, offering solutions such as ending the requirement for Section 521 rental assistance recipients to reside only in Section 515-financed housing. <sup>482</sup>

In addition, while the 515 program was created to incentivize construction and rehabilitation of affordable rural housing, lack of funding for the program has led to structures falling into disrepair, and a halt in construction since 2012.<sup>483</sup> Without sufficient funding for housing preservation, USDA estimates the rural affordable housing stock will drop from 400,000 to just over 66,000 by 2050.<sup>484</sup> Other programs created to support rural housing affordability under USDA have also been left without funding for years.<sup>485</sup> Potentially compounding this crisis, there are reports that the influx of high-income individuals from metropolitan areas has been driving up housing prices in rural areas throughout the pandemic period. Even as these individuals leave, the prices remain high.<sup>486</sup>

Government investment in housing for low-income Americans can provide the housing stability necessary to ensure economic stability, especially during economic crises

The Housing Choice Voucher (HCV) program, despite being the largest rental assistance program in the country, only funds about a quarter of those who are eligible due to funding constraints. If the program were fully funded, research suggests that it could lift an additional 9.3 million people out of poverty, and an estimated

24 million people who are severely rent burdened would be able to secure affordable housing.<sup>487</sup> In addition to expanding funding for the program, policies like the DEPOSIT Act would provide families with vouchers with additional funds to cover security deposits or other move-in costs that can be prohibitively expensive for many renters.<sup>488</sup>

Additionally, the emergency rental assistance (ERA) program created in response to the COVID-19 pandemic provides another strong blueprint for how the federal government can keep families stably housed in the face of economic crises. While the program took time to stand up, it helped nearly 4 million households pay their rent in 2021 and helped keep eviction rates lower than the historical average across the country. 489 By February 2022, the U.S. Department of the Treasury also reported that more than 80% of all ERA funds were provided to households with an income that is equal to or less than 50% of the area median income (AMI). This program was especially successful in places where state and local fund providers could streamline the application process and directly send funds to tenants when landlords were unresponsive. Together, the ERA program shows how the federal government can effectively deliver rental support that compliments the HCV program in times of need.<sup>490</sup>

Expanding tenants' right to counsel, rent stabilization, and Housing First programs can keep more people stably housed

Recent evidence also shows a range of strategies that can help people stay in their homes, prevent evictions, and help people transition out of homelessness. Tenant protections can be expanded through tenants' right to counsel in eviction cases to put renters on a more even footing with landlords. The American Civil Liberties Union (ACLU) found while 80% of all landlords have legal representation in housing court, only 3% of tenants

nationwide have legal representation.<sup>491</sup> As of June 2023, 17 cities, 4 states, and 1 county have passed tenants' right to counsel laws, which studies routinely find reduce the likelihood of eviction.<sup>492,493</sup>

Rent regulations place a limit on market rent increases, which can help renters from being priced out of an apartment where they currently live. While research has shown that rent stabilization laws do keep tenants from getting priced out, absent other policy reforms these caps can reduce housing supply and worsen housing quality as landlords decline to invest in an asset where the returns, in this case the monthly rent, are capped at a set amount that may not cover costs. 494 While the extent of the housing supply effect is unclear, given their role in maintaining affordability for current tenants, rent stabilization policies have a role to play alongside other reforms meant to strike a balance between tenant protections and housing availability. 495,496

The housing first model for alleviating homelessness provides unhoused people with permanent housing and optional treatment services. The alternative model, frequently referred to as "treatment first" requires those seeking permanent housing to first graduate from a drug addiction or psychiatric treatment program to secure permanent housing. Studies of housing first programs have repeatedly shown that participation leads to a higher likelihood of housing stability than participation in treatment first programs, with similar levels of health benefits, and substantial cost savings per dollar invested. 497,498,499

The Biden administration has taken important actions to expand housing supply and improve housing stability for renters

Federal supply interventions are needed to address the housing shortage, such as ensuring that financing is available for housing construction and preservation. In 2022, the Biden administration published a plan that addresses these challenges. Included in their objectives, the administration committed to making financing available for construction of a larger variety of single- and multifamily housing units, including manufactured housing and smaller multifamily buildings. The administration also proposed increasing the availability of federally-backed loans offered for construction and ownership ("Construction to Permanent loans"), encouraging states, Tribal governments, and localities to utilize COVID relief funds towards growing the affordable housing stock in their areas, and making changes to key government programs that incentivize and help to fund affordable housing construction, such as the HOME Investment Partnerships Program and the Low Income Housing Tax Credit (LIHTC). 500

In January 2023, the Biden administration released the "Blueprint for a Renters Bill of Rights," which outlines objectives to ensure tenant protections and affordable rent. Included in this plan was an announcement that the Federal Trade Commission (FTC) would investigate rental market practices that harm tenants.

The Biden administration has also tasked the Consumer Financial Protection Bureau (CFPB) with protecting tenants by among other efforts, collecting more data on housing practices that impede stable housing. The Department of Justice will also be reviewing rental markets to determine whether there is need for an update to guidance on anti-competitive practices as it applies to such markets.<sup>501</sup> These actions, along with those previously discussed, can help improve housing stability for renters.

## **ENDNOTES**

<sup>1</sup> Bureau of Economic Analysis, "Gross Domestic Product, Fourth Quarter and Year 2022 (Third Estimate), GDP by Industry, and Corporate Profits," March 30, 2023, <a href="https://www.bea.gov/news/2023/gross-domestic-product-fourth-quarter-and-year-2022-third-estimate-gdp-industry-and">https://www.bea.gov/news/2023/gross-domestic-product-fourth-quarter-and-year-2022-third-estimate-gdp-industry-and</a>.

<sup>&</sup>lt;sup>2</sup> Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, All Employees, Total Nonfarm, <a href="https://fred.stlouisfed.org/series/PAYEMS">https://fred.stlouisfed.org/series/PAYEMS</a>.

<sup>&</sup>lt;sup>3</sup> Bureau of Labor Statistics, "Consumer Price Index Summary", June 13, 2023, <a href="https://www.bls.gov/news.release/cpi.nr0.htm">https://www.bls.gov/news.release/cpi.nr0.htm</a>.

<sup>&</sup>lt;sup>4</sup> Bureau of the Fiscal Service, "Final Monthly Treasury Statement", September 2022, <a href="https://www.fiscal.treasury.gov/files/reports-statements/mts/mts/922.pdf">https://www.fiscal.treasury.gov/files/reports-statements/mts/mts/922.pdf</a>.

<sup>&</sup>lt;sup>5</sup> Glen Hendricks and Seth Hanlon, "The TCJA 2 Years Later: Corporations, Not Workers, Are the Big Winners," Center for American Progress, December 19, 2019, <a href="https://www.americanprogress.org/article/tcja-2-years-later-corporations-not-workers-big-winners/">https://www.americanprogress.org/article/tcja-2-years-later-corporations-not-workers-big-winners/</a>.

<sup>&</sup>lt;sup>6</sup> Congressional Budget Office, "Estimated Budgetary Effects of Public Law 117-169, to Provide for Reconciliation Pursuant to Title II of S. Con. Res. 1," September 7, 2022, <a href="https://www.cbo.gov/system/files/2022-09/PL117-169-9-7-22.pdf">https://www.cbo.gov/system/files/2022-09/PL117-169-9-7-22.pdf</a>.

<sup>&</sup>lt;sup>7</sup> Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, All Employees, Manufacturing. <a href="https://fred.stlouisfed.org/series/MANEMP">https://fred.stlouisfed.org/series/MANEMP</a>.

<sup>&</sup>lt;sup>8</sup> Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, Real Gross Domestic Product, <a href="https://fred.stlouisfed.org/series/GDPC1">https://fred.stlouisfed.org/series/GDPC1</a>.

<sup>&</sup>lt;sup>9</sup> National Bureau of Economic Research, Business Cycle Dating Committee, <a href="https://www.nber.org/research/business-cycle-dating">https://www.nber.org/research/business-cycle-dating</a>.

<sup>&</sup>lt;sup>10</sup> Bureau of Economic Analysis, "Gross Domestic Product (Third Estimate), GDP by Industry, and Corporate Profits (Revised), First Quarter 2022", June 29, 2022 <a href="https://www.bea.gov/news/2022/gross-domestic-product-third-estimate-gdp-industry-and-corporate-profits-revised-first">https://www.bea.gov/news/2022/gross-domestic-product-third-estimate-gdp-industry-and-corporate-profits-revised-first</a>.

<sup>&</sup>lt;sup>11</sup> Bureau of Economic Analysis, "Gross Domestic Product (Third Estimate), GDP by Industry, and Corporate Profits (Revised), 2nd Quarter 2022 and Annual Update," September 29, 2022, <a href="https://www.bea.gov/news/2022/gross-domestic-product-third-estimate-gdp-industry-and-corporate-profits-revised-2nd">https://www.bea.gov/news/2022/gross-domestic-product-third-estimate-gdp-industry-and-corporate-profits-revised-2nd</a>.

<sup>&</sup>lt;sup>12</sup> Bureau of Economic Analysis, "NIPA Handbook Chapter 7: Change in Private Inventories," November 2019, https://www.bea.gov/system/files/2019-12/Chapter-7.pdf.

<sup>13</sup> Matthew Boesler, "Powell's Favored Inflation Gauge for Services Hits 10-Month Low," *Bloomberg News*, June 30, 2023,

https://www.bloomberg.com/news/articles/2023-06-30/us-core-services-prices-post-smallest-advance-since-july-2022.

- <sup>14</sup> Catherine Rampell, "How much did Congress lose by defunding the IRS? Way more than we thought." *The Washington Post*, June 14, 2023, <a href="https://www.washingtonpost.com/opinions/interactive/2023/irs-enforcement-costs-congress-funding/">https://www.washingtonpost.com/opinions/interactive/2023/irs-enforcement-costs-congress-funding/</a>.
- <sup>15</sup> U.S. Department of the Treasury, "The Potential Ma croeconomic Effect of Debt Ceiling Brinksmanship," October 3, 2013,

https://home.treasury.gov/news/press-

 $\frac{releases/j1217\,8\#: \sim: text=The\%\,2030\,\%\,2Dyear\%\,20con\,ventional\%\,20fix\,ed\%\,2Dm}{te\%\,20mortgage\%\,20spread\%\,20over\%\,20Treasury\%\,20yields\%\,20jumped\%\,20b}{y\%\,20as\%\,20much\%\,20as\%\,2070\%\,20basis\%\,20points\%\,20late\%\,20in\%\,20the\%\,20summer\%\,20of\%\,202011.\%\,C2\%\,A0.$ 

- <sup>16</sup> Joint Economic Committee, "Update: The Steep Costs of a Republican Default Crisis," May 2023,
- $\frac{https://www.jec.senate.gov/public/\ cache/files/5d11f575-d7f8-4fc7-af97-gf56450eda90/update---the-steep-costs-of-a-republican-default-crisis.pdf.}$
- <sup>17</sup> Alan Rappeport and Joe Rennison, "A\$1 Trillion Borrowing Binge Looms After Debt Limit Standoff", *The New York Times*, June 7, 2023,

 $\frac{https://www.nytimes.com/2023/06/07/business/economy/debt-ceiling-borrowing-binge.html.}{}$ 

- <sup>18</sup> Bureau of Labor Statistics, Seasonal Unemployment Rate, June 30, 2023, https://data.bls.gov/timeseries/LNS14000000.
- <sup>19</sup> U.S. Department of Labor, "Unemployment Insurance Weekly Claims," July 6, 2023, <a href="https://www.dol.gov/ui/data.pdf">https://www.dol.gov/ui/data.pdf</a>.
- <sup>20</sup> Courtenay Brown, "Job Market Milestone: Shrinking Employment Gap for Black Workers," Axios, April 5, 2023,

https://www.axios.com/2023/04/05/job-market-black-workers.

- <sup>21</sup> Lauren Kaori Gurley, Abha Bhattarai, and Naomi Nix, "Black unemployment rate hits record low 5 percent," *The Washington Post*, April 7, 2023, <a href="https://www.washingtonpost.com/business/2023/04/07/black-unemployment-rate-record-low/">https://www.washingtonpost.com/business/2023/04/07/black-unemployment-rate-record-low/</a>.
- <sup>22</sup> David Autor, Arindrajit Dube, and Annie McGrew, "The Unexpected Compression: Competition at Work in the Low Wage Labor Market," National Bureau of Economic Research, Working Paper 31010, March 2023, <a href="https://www.nber.org/papers/w31010">https://www.nber.org/papers/w31010</a>.

<sup>23</sup> Federal Reserve Bank of Atlanta, Wage Growth Tracker, Wage Level, June 30, 2023, <a href="https://www.atlantafed.org/chcs/wage-growth-tracker?panel=1">https://www.atlantafed.org/chcs/wage-growth-tracker?panel=1</a>.

- <sup>24</sup> Federal Reserve Bank of Atlanta, Wage Growth Tracker, Wage Level, June 30, 2023, <a href="https://www.atlantafed.org/chcs/wage-growth-tracker?panel=1">https://www.atlantafed.org/chcs/wage-growth-tracker?panel=1</a>.
- <sup>25</sup> Andrew Biggs, Anqi Chen, and Alicia H. Munnell, "How Did the Pandemic Affect Household Balance Sheets?," Center for Retirement Research, February 28, 2023, <a href="https://crr.bc.edu/how-did-the-pandemic-affect-household-balance-sheets/">https://crr.bc.edu/how-did-the-pandemic-affect-household-balance-sheets/</a>.
- <sup>26</sup> Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, Delinquency Rate on Single-Family Residential Mortgages, Booked in Domestic Offices, All Commercial Banks,

https://fred.stlouisfed.org/series/DRSFRMACBS.

- <sup>27</sup> Board of Governors of the Federal Reserve System, "Economic Well-Being of U.S. Households in 2022," May 2023,
- https://www.federalreserve.gov/publications/files/2022-report-economic-well-being-us-households-202305.pdf.
- <sup>28</sup> Sharada Dharmasankar and Bhash Mazumder, "Have Borrowers Recovered from Foreclosures during the Great Recession?" *Chicago Fed Letter*, No. 370, 2016, <a href="https://www.chicagofed.org/publications/chicago-fed-letter/2016/370">https://www.chicagofed.org/publications/chicago-fed-letter/2016/370</a>.
- <sup>29</sup> Rachel Witkowski, "For People Under 30, Car Loan Delinquencies Hit a 15-Year High. Is the Economy Running Out of Gas?," *Forbes*, June 2, 2023, <a href="https://www.forbes.com/advisor/auto-loans/car-loan-late-payments/">https://www.forbes.com/advisor/auto-loans/car-loan-late-payments/</a>.
- $^{30}$  Board of Governors of the Federal Reserve System, "Economic Well-Being of U.S. Households in 2022," May 2023,
- $\underline{https://www.federal reserve.gov/publications/files/2022-report-economic-well-being-us-households-202305.pdf}.$
- <sup>31</sup> As shown by the Supplemental Poverty Measure (SPM), which is a broader measure of poverty than the Official Poverty Measure (OPM). It accounts for cash and noncash benefits, federal and state taxes, and work and medical expenses, as well as geographic variation in poverty thresholds.
- <sup>32</sup> John Creamer, Emily A. Shrider, Kalee Burns, and Frances Chen, "Poverty in the United States: 2021," U.S. Census Bureau, September 13, 2022, https://www.census.gov/library/publications/2022/demo/p60-277.html.
- <sup>33</sup> Center on Poverty and Social Policy at Columbia University, "Historical Supplemental Poverty Measure Data,"

https://www.povertycenter.columbia.edu/historical-spm-data.

<sup>34</sup> Kalee Burns, Liana Fox, and Danielle Wilson, "Child Poverty Fell to Record Low 5.2% in 2021," U.S. Census Bureau, September 13, 2022,

https://www.census.gov/library/stories/2022/09/record-drop-in-child-poverty.html.

- <sup>35</sup> Sharon Parrott, "In Pandemic's Second Year, Government Policies Helped Drive Child Poverty Rate to a Record Low, Cut Uninsured Rate, New Census Data Show," Center on Budget and Policy Priorities, September 13, 2022, <a href="https://www.cbpp.org/press/statements/in-pandemics-second-year-government-policies-helped-drive-child-poverty-rate-to-a">https://www.cbpp.org/press/statements/in-pandemics-second-year-government-policies-helped-drive-child-poverty-rate-to-a</a>.
- <sup>36</sup> Kalee Burns, Liana Fox, and Danielle Wilson, "Child Poverty Fell to Record Low 5.2% in 2021," U.S. Census Bureau, September 13, 2022, <a href="https://www.census.gov/library/stories/2022/09/record-drop-in-child-poverty.html">https://www.census.gov/library/stories/2022/09/record-drop-in-child-poverty.html</a>.
- <sup>37</sup> Joint Economic Committee, "New Data and Studies Confirm the Enormous Economic Benefits Provided by the Expanded Child Tax Credit," April 14, 2022, <a href="https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?ID=02FF0E7B-B179-45D4-AA71-28A353105572">https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?ID=02FF0E7B-B179-45D4-AA71-28A353105572</a>.
- <sup>38</sup> Chuck Marr, Kris Cox, Sarah Calame, Stephanie Hingtgen, George Fenton, and Arloc Sherman, "Year-End Tax Policy Priority: Expand the Child Tax Credit for the 19 Million Children Who Receive Less Than the Full Credit," Center on Budget and Policy Priorities, December 7, 2022, <a href="https://www.cbpp.org/research/federal-tax/year-end-tax-policy-priority-expand-the-child-tax-credit-for-the-19-million">https://www.cbpp.org/research/federal-tax/year-end-tax-policy-priority-expand-the-child-tax-credit-for-the-19-million</a>.
- <sup>39</sup> Joint Economic Committee, "The Expanded Child Tax Credit Dramatically Reduced Child Poverty in 2021," November 30, 2022, <a href="https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?id=CD9DF1DD-39AF-4F31-9401-B2687B593E59">https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?id=CD9DF1DD-39AF-4F31-9401-B2687B593E59</a>.
- <sup>40</sup> Unlike the poverty measures produced by the U.S. Census Bureau, the OECD measures poverty as the percentage of children who live in families that earn below 50% of the country's median income. This approach makes it easier to compare poverty rates across different countries and years.
- <sup>41</sup> OECD, "Poverty rate," <a href="https://data.oecd.org/inequality/poverty-rate.htm">https://data.oecd.org/inequality/poverty-rate.htm</a>.
- <sup>42</sup> UNICEF, "Sweden, Norway, Iceland, Estonia and Portugal rank highest for family-friendly policies in OECD and EU countries," June 12, 2019, <a href="https://www.unicef.org/press-releases/sweden-norway-iceland-and-estonia-rank-highest-family-friendly-policies-oecd-and-eu">https://www.unicef.org/press-releases/sweden-norway-iceland-and-estonia-rank-highest-family-friendly-policies-oecd-and-eu</a>.
- <sup>43</sup> Mailman School of Public Health at Columbia University, "Germany: Summary,"

 $\underline{https://www.publichealth.columbia.edu/research/others/comparative-health-policy-library/germany-summary\#:~:text=6-}$ 

<u>HEALTH% 20%26% 20HEALTH% 20SYSTEM, private % 20health% 20insurance</u> % 20(PHI).

<sup>44</sup> Yekaterina Chzhen, Anna Gromada, and Gwyther Rees, "Family Friendly Policies Report: Are the world's richest countries family friendly?," UNICEF, 2019, <a href="https://www.unicef-irc.org/family-">https://www.unicef-irc.org/family-</a>

friendly#:~:text=FIGURE% 201%3A% 20League%20Table% 20% E2%80% 93 %20Indicators%20of% 20national% 20family%2Dfriendly% 20policies%2C%2 02016.

- <sup>45</sup> Alberto Alesina, Edward Glaeser, and Bruce Sacerdote, "Why Doesn't the United States Have a European-Style Welfare State?," Brookings Papers on Economic Activity, 2:2001, <a href="https://www.brookings.edu/wp-content/uploads/2001/06/2001b">https://www.brookings.edu/wp-content/uploads/2001/06/2001b</a> bpea alesina.pdf.
- <sup>46</sup> Barbara A. Butrica, "A Review of Children's Savings Accounts," Urban Institute, March 2015,

 $\frac{https://www.urban.org/sites/default/files/alfresco/publication-pdfs/2000157-A-Review-of-Childrens-Savings-Accounts.pdf.}{A-Review-of-Childrens-Savings-Accounts.pdf}.$ 

- <sup>47</sup> Emma Beswick, "Which country has the highest child benefits available to foreigners?," Euronews, August 17, 2018,
- $\frac{https://www.euronews.com/2018/08/17/which-country-has-the-highest-child-benefits-available-to-foreigners-.}{}$
- <sup>48</sup> Caroline Ratcliffe, "Child Poverty and Adult Success," Urban Institute, September 2015,

 $\frac{https://www.urban.org/sites/default/files/publication/65766/2000369-Child-Poverty-and-Adult-Success.pdf.$ 

<sup>49</sup> Areeba Haider, "The Basic Facts About Children in Poverty," Center for American Progress, January 12, 2021,

https://www.americanprogress.org/article/basic-facts-children-poverty/.

- <sup>50</sup> OECD, "Poverty rate," <a href="https://data.oecd.org/inequality/poverty-rate.htm">https://data.oecd.org/inequality/poverty-rate.htm</a>.
- <sup>51</sup> Kalee Burns, Liana Fox, and Danielle Wilson, "Child Poverty Fell to Record Low 5.2% in 2021," U.S. Census Bureau, September 13, 2022, <a href="https://www.census.gov/library/stories/2022/09/record-drop-in-child-poverty.html">https://www.census.gov/library/stories/2022/09/record-drop-in-child-poverty.html</a>.
- <sup>52</sup> Sophie Collyer, Megan Curran, Irwin Garfinkel, David Harris, Dominic Richardson, and Christopher Wimer, "A Step in the Right Direction: The Expanded Child Tax Credit Would Move the United States' High Child Poverty Rate Closer to Peer Nations," Columbia University, Center on Poverty and Social Policy, Children's Research and Education Institute, The UNICEF Innocenti–Global Office of Research and Foresight, Poverty and Social Policy Joint Report, Vol. 6, No. 7, October 25, 2022,

https://www.povertycenter.columbia.edu/publication/2022/child-tax-credit-and-relative-poverty.

- <sup>53</sup> Kalee Burns, Liana Fox, and Danielle Wilson, "Child Poverty Fell to Record Low 5.2% in 2021," U.S. Census Bureau, September 13, 2022, <a href="https://www.census.gov/library/stories/2022/09/record-drop-in-child-poverty.html">https://www.census.gov/library/stories/2022/09/record-drop-in-child-poverty.html</a>.
- <sup>54</sup> Zachary Parolin, Sophie Collyer, and Megan A. Curran, "Absence of Monthly Child Tax Credit Leads to 3.7 Million More Children in Poverty in January 2022," Columbia University Center on Poverty and Social Policy, Poverty and Social Policy Brief, Vol. 6, No. 2, February 17, 2022, <a href="https://www.povertycenter.columbia.edu/news-internal/monthly-poverty-january-2022">https://www.povertycenter.columbia.edu/news-internal/monthly-poverty-january-2022</a>.
- <sup>55</sup> The U.S. Census Bureau releases Income, Poverty, and Health Insurance statistics from the Current Population Survey's Annual Social and Economic Supplement in September each year.
- <sup>56</sup> U.S. Census Bureau, "Income, Poverty and Health Insurance Coverage in the United States: 2021," September 13, 2022, <a href="https://www.census.gov/newsroom/press-releases/2022/income-poverty-health-insurance-coverage.html">https://www.census.gov/newsroom/press-releases/2022/income-poverty-health-insurance-coverage.html</a>.
- <sup>57</sup> Zachary Parolin, Sophie Collyer, and Megan A. Curran, "Absence of Monthly Child Tax Credit Leads to 3.7 Million More Children in Poverty in January 2022," Columbia University Center on Poverty and Social Policy, Poverty and Social Policy Brief, Vol. 6, No. 2, February 17, 2022, <a href="https://www.povertycenter.columbia.edu/news-internal/monthly-poverty-january-2022">https://www.povertycenter.columbia.edu/news-internal/monthly-poverty-january-2022</a>.
- <sup>58</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022, <a href="https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap">https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap</a>.
- <sup>59</sup> U.S. Census Bureau, ACS 1-Year Estimates, https://data.census.gov/mdat/#/search?ds=ACSPUMS1Y2019&cv=FS%281,2 %29&rv=AGEP RC1&wt=PWGTP&AGEP RC1=%7B%22S%22%3A%22 Age%20recode%22,%22R%22%3A%22AGEP%22,%22W%22%3A%22PW GTP%22,%22V%22V3A%5B%5B%2218%3A99%22,%22Not%20Elsewher e%20Classified%22%5D,%5B%221%3A17,00%22,%22Children%22%5D% 5D%7D.
- <sup>60</sup> Jeff Carlson, "Senate Democrats Reintroduce Child Tax Credit Legislation," *Thomson Reuters*, June 15, 2023, <a href="https://tax.thomsonreuters.com/news/senate-democrats-reintroduce-child-tax-credit-legislation/">https://tax.thomsonreuters.com/news/senate-democrats-reintroduce-child-tax-credit-legislation/</a>.
- $^{61}$  Joe Hughes, "Expanding the Child Tax Credit Would Help 60 Million Kids, Especially Those in Families with Low Incomes," Institute on Taxation and

Economic Policy, June 13, 2023, <a href="https://itep.org/child-tax-credit-expansion-would-help-60-million-kids/">https://itep.org/child-tax-credit-expansion-would-help-60-million-kids/</a>.

<sup>62</sup> Congress.gov, "H.R.3899 - To a mend the Internal Revenue Code of 1986 to establish a refundable child tax credit with monthly advance payment," <a href="https://www.congress.gov/bill/118th-congress/house-">https://www.congress.gov/bill/118th-congress/house-</a>

bill/3899?s=3&r=3&q=%7B%22search%22%3A%5B%22%22%5D%7D.

<sup>63</sup> Vance Cariaga, "Child Tax Credit Could Be the Stimulus Payment Used as 'Bargaining Chip' for Tax Reform — Could Payments Come Close to \$300 a Month?" *Yahoo Finance*, June 21, 2023,

https://finance.yahoo.com/news/child-tax-credit-could-stimulus-

115357424.html?guccounter=1&guce referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce referrer sig=AQAAAJ-

jKpJi8I7CNBo0wWxrxvwdpZ7XzXSVmFnSOUfKrbbJVS84eZqyxhvGsqao-NGcsskpKqGjAloS5OYKUen175y9iveh WcI54z843dRiT50A-

8HtefUTpLvBBcs6WcQDVhHtOwc gGDu3TP2WBpLFc0deUqhiTb4CbHjub-

 $\frac{4D2L\#:\sim:text=Congressional\%\,20Democrats\%\,20are\%\,20once\%\,20aga\,in,2021}{\%\,20American\%\,20Rescue\%\,20Plan\%\,20Act}.$ 

- <sup>64</sup> U.S. Senator Martin Heinrich, "Two-Generation Economic Empowerment Act," <a href="https://www.heinrich.senate.gov/priorities/issues/two-generation-economic-empowerment-act">https://www.heinrich.senate.gov/priorities/issues/two-generation-economic-empowerment-act</a>.
- <sup>65</sup> Greg J. Duncan, Kathleen M. Ziol-Guest, and Ariel Kalil, "Early-Childhood Poverty and Adult Attainment, Behavior, and Health," *Child Development*, Vol. 81, No. 1, 306-325, January/February 2010,

https://www.jstor.org/stable/40598980?seq=1#metadata info tab contents.

- <sup>66</sup> Raj Chetty, John N. Friedman, and Jonah Rockoff, "New Evidence on the Long-Term Impacts of Tax Credits," National Tax Association, 104th Annual Conference on Taxation, Vol. 104, 116-124, November 17-19, 2011, <a href="https://www.ntanet.org/wp-content/uploads/proceedings/2011/018-chetty-new-evidence-longterm-2011-nta-proceedings.pdf">https://www.ntanet.org/wp-content/uploads/proceedings/2011/018-chetty-new-evidence-longterm-2011-nta-proceedings.pdf</a>.
- <sup>67</sup> Jacob Bastian and Katherine Michelmore, "The Long-Term Impact of the Earned Income Tax Credit on Children's Education and Employment Outcomes," *Journal of Labor Economics*, Vol. 36, No. 4, October 2018, <a href="https://www.journals.uchicago.edu/doi/abs/10.1086/697477">https://www.journals.uchicago.edu/doi/abs/10.1086/697477</a>.
- <sup>68</sup> Hilary Hoynes, Diane Whitmore Schanzenbach, and Douglas Almond, Long-Run Impacts of Childhood Access to the Safety Net," *American Economic Review*, Vol. 106, No. 4, 903-934, April 2016, https://www.aeaweb.org/articles?id=10.1257/aer.20130375.
- <sup>69</sup> Martha J. Bailey, Hilary W. Hoynes, Maya Rossin-Slater, and Reed Walker, "Is the Social Safety Net a Long-Term Investment? Large-Scale Evidence

from the Food Stamps Program," National Bureau of Economic Research, Working Paper 26942, April 2020, <a href="https://www.nber.org/papers/w26942">https://www.nber.org/papers/w26942</a>.

- <sup>70</sup> Jacob Bastian and Katherine Michelmore, "The Long-Term Impact of the Earned Income Tax Credit on Children's Education and Employment Outcomes," *Journal of Labor Economics*, Vol. 36, No. 4, October 2018, https://www.journals.uchicago.edu/doi/abs/10.1086/697477.
- <sup>71</sup> Martha J. Bailey, Hilary W. Hoynes, Maya Rossin-Slater, and Reed Walker, "Is the Social Safety Net a Long-Term Investment? Large-Scale Evidence from the Food Stamps Program," National Bureau of Economic Research, Working Paper 26942, April 2020, https://www.nber.org/papers/w26942.
- <sup>72</sup> Leah Hamilton, Stephen Roll, Mathieu Despard, Elaine Maag, Yung Chun, Laura Brugger, and Michal Grinstein-Weiss, "The impacts of the 2021 expanded child tax credit on family employment, nutrition, and financial wellbeing," Brookings Institution, April 13, 2022,
- https://www.brookings.edu/articles/the-impacts-of-the-2021-expanded-child-tax-credit-on-family-employment-nutrition-and-financial-well-being/.
- <sup>73</sup> Irwin Garfinkel, Laurel Sariscsany, Elizabeth Ananat, Sophie M. Collyer, Robert Paul Hartley, Buyi Wang, and Christopher Wimer, "The Benefits and Costs of a Child Allowance," *Journal of Benefit-CostAnalysis*, Vol. 13, No. 3, 335-362, September 23, 2022, <a href="https://www.povertycenter.columbia.edu/news-internal/2021/child-allowance/cost-benefit-analysis">https://www.povertycenter.columbia.edu/news-internal/2021/child-allowance/cost-benefit-analysis</a>.
- <sup>74</sup> Nathaniel Hendren and Ben Sprung-Keyser, "A United Welfare Analysis of Government Policies," *Quarterly Journal of Economics*, Vol. 135, No. 3, 1209-1318, February 2020,

https://scholar.harvard.edu/files/hendren/files/welfare vnber.pdf.

- <sup>75</sup> Child Care Aware of America, "Demanding Change: Repairing our Child Care System," <a href="https://www.childcareaware.org/demanding-change-repairing-our-child-care-system/?hsCtaTracking=bec2ce3a-c87b-4298-91ad-aa62f51bef1d%7Ca876b305-a391-4ed8-b8aa-0e4cdaa3c701">hsCtaTracking=bec2ce3a-c87b-4298-91ad-aa62f51bef1d%7Ca876b305-a391-4ed8-b8aa-0e4cdaa3c701</a>.
- <sup>76</sup> Child Care Aware, "The US and the High Price of Child Care: An Examination of a Broken System," <a href="https://www.childcareaware.org/our-issues/research/the-us-and-the-high-price-of-child-care-2019/">https://www.childcareaware.org/our-issues/research/the-us-and-the-high-price-of-child-care-2019/</a>.
- <sup>77</sup> U.S. Department of the Treasury, "The Economics of Child Care Supply in the United States," September 2021, <a href="https://home.treasury.gov/news/press-releases/jy0354">https://home.treasury.gov/news/press-releases/jy0354</a>.
- <sup>78</sup> Leila Schochet, "The Child Care Crisis Is Keeping Women Out of the Workforce," Center for American Progress, March 28, 2019, <a href="https://www.americanprogress.org/article/child-care-crisis-keeping-women-workforce/">https://www.americanprogress.org/article/child-care-crisis-keeping-women-workforce/</a>.

<sup>79</sup> Organisation for Economic Co-operation and Development, "Public spending on childcare and early education," OECD Family Database, February 2023, <a href="https://www.oecd.org/els/family/database.htm">https://www.oecd.org/els/family/database.htm</a>.

<sup>80</sup> Leila Schochet, "The Child Care Crisis Is Keeping Women Out of the Workforce," Center for American Progress, March 28, 2019, <a href="https://www.americanprogress.org/article/child-care-crisis-keeping-women-workforce/">https://www.americanprogress.org/article/child-care-crisis-keeping-women-workforce/</a>.

<sup>81</sup> Data Resource Center for Child and Adolescent Health, The Child and Adolescent Health Measurement Initiative,

https://www.childhealthdata.org/browse/survey/results?q=8354&r=1.

- <sup>82</sup> Federal Reserve Bank of San Francisco, "Mothers in a Pandemic Labor Market," May 6, 2021, <a href="https://www.frbsf.org/our-district/about/sf-fed-blog/mothers-labor-force-participation-declines-covid-19/">https://www.frbsf.org/our-district/about/sf-fed-blog/mothers-labor-force-participation-declines-covid-19/</a>.
- <sup>83</sup> Joint Economic Committee, "Child Care Investment Is Crucial for Future Economic Growth," October 20, 2021,

https://www.jec.senate.gov/public/index.cfm/democrats/2021/10/child-care-investment-is-crucial-for-future-economic-growth.

<sup>84</sup> Joint Economic Committee, "Strong Care Infrastructure Is Critical to Increasing Labor Force Participation and Driving Future Economic Growth," September 23, 2021,

 $\underline{https://www.jec.senate.gov/public/index.cfm/democrats/2021/9/strong-care-infrastructure-is-critical-to-increasing-labor-force-participation-and-driving-future-economic-growth.}$ 

- <sup>85</sup> Joint Economic Committee, "Child Care Investment Is Crucial for Future Economic Growth," October 20, 2021,
- https://www.jec.senate.gov/public/index.cfm/democrats/2021/10/child-care-investment-is-crucial-for-future-economic-growth.
- <sup>86</sup> Leila Schochet, "The Child Care Crisis Is Keeping Women Out of the Workforce," Center for American Progress, March 28, 2019, <a href="https://www.americanprogress.org/article/child-care-crisis-keeping-women-workforce/">https://www.americanprogress.org/article/child-care-crisis-keeping-women-workforce/</a>.
- <sup>87</sup> Elise Gould and Hunter Blair, "Who's paying now? The explicit and implicit costs of the current early care and education system," Economic Policy Institute, January 15, 2020, <a href="https://www.epi.org/publication/whos-paying-now-costs-of-the-current-ece-system/">https://www.epi.org/publication/whos-paying-now-costs-of-the-current-ece-system/</a>.
- <sup>88</sup> ReadyNation Council for a Strong America, "Want to Grow the Economy? Fix the Child Care Crisis," January 2019,

 $\underline{https://strongnation.s3.amazonaws.com/documents/602/83bb2275\text{-}ce07\text{-}4d74\text{-}bcee-ff6178daf6bd.pdf}.$ 

<sup>89</sup> Elise Gould and Hunter Blair, "Who's paying now? The explicit and implicit costs of the current early care and education system," Economic Policy Institute, January 15, 2020, <a href="https://www.epi.org/publication/whos-paying-now-costs-of-the-current-ece-system/">https://www.epi.org/publication/whos-paying-now-costs-of-the-current-ece-system/</a>.

- <sup>90</sup> Josh Bivens, Emma García, Elise Gould, Elaine Weiss, and Valerie Wilson, "It's time for an ambitious national investment in America's children," Economic Policy Institute, April 6, 2016, <a href="https://www.epi.org/publication/its-time-for-an-ambitious-national-investment-in-americas-children/">https://www.epi.org/publication/its-time-for-an-ambitious-national-investment-in-americas-children/</a>.
- <sup>91</sup> James J. Heckman, Seong Hyeok Moon, Rodrigo Pinto, Peter A. Savelyev, and Adam Yavitza, "The Rate of Return to the High/Scope Perry Preschool Program," *J Public Econ*, 94(1-2): 114–128, February 1, 2010, <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145373/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145373/</a>.
- <sup>92</sup> Jorge Luis García, James J. Heckman, and Victor Ronda, "The Lasting Effects of Early Childhood Education on Promoting the Skills and Social Mobility of Disadvantaged African Americans," National Bureau of Economic Research, Working Paper 29057, July 2021, <a href="https://bfi.uchicago.edu/working-paper/the-lasting-effects-of-early-childhood-education-on-promoting-the-skills-and-social-mobility-of-disadvantaged-education-on-promoting-the-skills-and-social-mobility-of-disadvantaged-</a>
- <sup>93</sup> The White House, "The Economics of Early Childhood Investments," January 2015, chrome-

african-americans/.

- https://obamawhitehouse.archives.gov/sites/default/files/docs/early\_childhood\_report\_update\_final\_non-embargo.pdf.
- <sup>94</sup> U.S. Department of the Treasury, "The Economics of Child Care Supply in the United States," September 2021, <a href="https://home.treasury.gov/news/press-releases/jy0354">https://home.treasury.gov/news/press-releases/jy0354</a>.
- <sup>95</sup> Sam Abbott, "The child care economy," Washington Center for Equitable Growth, September 15, 2021, <a href="https://equitablegrowth.org/research-paper/the-child-care-economy/">https://equitablegrowth.org/research-paper/the-child-care-economy/</a>.
- <sup>96</sup> Food insecurity as defined by the U.S. Department of Agriculture: "At times during the year, these households were uncertain of having or unable to acquire enough food to meet the needs of all their members because they had insufficient money or other resources for food. Food-insecure households include those with low food security and very low food security."
- <sup>97</sup> U.S. Department of Agriculture, "Food Security Status of U.S. Households in 2021," June 20, 2023, <a href="https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/">https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/</a>.
- <sup>98</sup> Alisha Coleman-Jensen, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh, "Household Food Security in the United States in 2019," U.S.

Department of Agriculture, September 2020,

 $\underline{https://www.ers.usda.gov/publications/pub-details/?pubid=99281}.$ 

<sup>99</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-">https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-</a>

<u>children#:~:text=WIC%20provided%20an%20average%20value,-19%20Pandemic%E2%80%9D%20below.</u>

- <sup>100</sup> Center on Budget and Policy Priorities, "Robust COVID Relief Bolstered Economy and Reduced Hardship for Millions," March 6, 2023, <a href="https://www.cbpp.org/research/poverty-and-inequality/robust-covid-relief-bolstered-economy-and-reduced-hardship-for#">https://www.cbpp.org/research/poverty-and-inequality/robust-covid-relief-bolstered-economy-and-reduced-hardship-for#</a> ftnref4.
- <sup>101</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022, <a href="https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap">https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap</a>.
- <sup>102</sup> Joint Economic Committee, "Updated SNAP Benefit Levels Will Help 42 Million People and Add \$31.8 Billion in Local Economic Activity Every Year," September 16, 2021,

https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?ID=C9612C05-8504-4B39-82DB-E45C9E05B36C.

- <sup>103</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-">https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-</a>
- children#:~:text=WIC%20provided%20an%20average%20value,%2D19%20 Pandemic%E2%80%9D%20below).
- <sup>104</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022,

https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap.

- <sup>105</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022,
- $\frac{https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap.}{}$
- <sup>106</sup> Steven Carlson and Brynne Keith-Jennings, "SNAP Is Linked with Improved Nutritional Outcomes and Lower Health Care Costs," Center on Budget and Policy Priorities, January 17, 2018,

https://www.cbpp.org/research/food-assistance/snap-is-linked-with-improved-nutritional-outcomes-and-lower-health-care# ftnref14.

<sup>107</sup> Caroline Ratcliffe, Signe-Mary McKernan, and Sisi Zhang, "How Much Does the Supplemental Nutrition Assistance Program Reduce Food Insecurity?" *Am J Agric Econ*, 93(4): 1082–1098, July 12, 2011, <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4154696/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4154696/</a>.

<sup>108</sup> Joint Economic Committee, "Updated SNAP Benefit Levels Will Help 42 Million People and Add \$31.8 Billion in Local Economic Activity Every Year," September 16, 2021,

https://www.jec.senate.gov/public/index.cfm/democrats/issuebriefs?ID=C9612C05-8504-4B39-82DB-E45C9E05B36C.

<sup>109</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022,

 $\frac{https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap.}{}$ 

- <sup>110</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-">https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-</a>
- <u>children#:~:text=WIC%20provided%20an%20average%20value,%2D19%20Pandemic%E2%80%9D%20below</u>).
- 111 Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-nutrition
- <u>children#:~:text=WIC%20provided%20an%20average%20value,%2D19%20Pandemic%E2%80%9D%20below</u>).
- <sup>112</sup> Eliza beth Chuck, "Omnibus bill includes two major provisions that would help keep children fed over the summer," *NBC News*, December 20, 2022, <a href="https://www.nbcnews.com/news/us-news/omnibus-bill-includes-two-major-provisions-help-keep-children-fed-summ-rcna62600">https://www.nbcnews.com/news/us-news/omnibus-bill-includes-two-major-provisions-help-keep-children-fed-summ-rcna62600</a>.
- <sup>113</sup> Zoë Neuberger, "Permanent Summer Grocery Benefits Are a Big Win for Children in Low-Income Families, Despite Disappointing Tradeoffs," Center on Budget and Policy Priorities, December 20, 2022,

 $\underline{https://www.cbpp.org/blog/permanent-summer-grocery-benefits-are-a-bigwin-for-children-in-low-income-families-}\\$ 

despite#:~:text=The%20new%20Summer%20EBT%20benefits,children%20in%20families%20receiving%20SNAP.

<sup>114</sup> Zoë Neuberger, "Permanent Summer Grocery Benefits Are a Big Win for Children in Low-Income Families, Despite Disappointing Tradeoffs," Center on Budget and Policy Priorities, December 20, 2022,

https://www.cbpp.org/blog/permanent-summer-grocery-benefits-are-a-big-win-for-children-in-low-income-families-

<u>despite#:~:text=The%20new%20Summer%20EBT%20benefits,children%20i</u>n%20families%20receiving%20SNAP.

<sup>115</sup> Zoë Neuberger, "Permanent Summer Grocery Benefits Are a Big Win for Children in Low-Income Families, Despite Disappointing Tradeoffs," Center on Budget and Policy Priorities, December 20, 2022,

 $\underline{https://www.cbpp.org/blog/permanent-summer-grocery-benefits-are-a-bigwin-for-children-in-low-income-families-}\\$ 

despite#:~:text=The%20new%20Summer%20EBT%20benefits,children%20in%20families%20receiving%20SNAP.

<sup>116</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022,

 $\frac{https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap.}{}$ 

<sup>117</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022,

 $\frac{https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap.}{}$ 

<sup>118</sup> Danilo Trisi and Matt Saenz, "Economic Security Programs Reduce Overall Poverty, Racial and Ethnic Inequities," Center on Budget and Policy Priorities, July 1, 2021, <a href="https://www.cbpp.org/research/poverty-and-inequality/economic-security-programs-reduce-overall-poverty-racial-and-ethnic">https://www.cbpp.org/research/poverty-and-inequality/economic-security-programs-reduce-overall-poverty-racial-and-ethnic</a>.

<sup>119</sup> U.S. Department of Agriculture Food and Nutrition Service, "Benefit Redemption Patterns in SNAP: FY 2017," November 10, 2020,

https://www.fns.usda.gov/snap/benefit-redemption-patterns-fy-2017.

<sup>120</sup> Brynne Keith-Jennings, Joseph Llobrera, and Stacy Dean, "Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential," *American Journal of Public Health* 109, 1636-1640, November 6, 2019,

https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305325.

<sup>121</sup> Brynne Keith-Jennings, Joseph Llobrera, and Stacy Dean, "Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential," *American Journal of Public Health* 109, 1636-1640, November 6, 2019,

https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305325.

<sup>122</sup> Brynne Keith-Jennings, Joseph Llobrera, and Stacy Dean, "Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential," *American Journal of Public Health* 109, 1636-1640, November 6, 2019,

https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305325.

<sup>123</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022, <a href="https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-">https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-</a>

assistance-program-snap.

<sup>124</sup> Steven Carlson and Zoë Neuberger, "WIC Works: Addressing the Nutrition and Health Needs of Low-Income Families for More Than Four Decades," Center on Budget and Policy Priorities, January 27, 2021, <a href="https://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families">https://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families</a>.

<sup>125</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-children#: https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-children#: https://www.cbpp.org/research/food-assistance/special-special-supplemental-nutrition-program-food-assistance/special-s

children#:~:text=WIC%20provided%20an%20average%20value,%2D19%20Pandemic%E2%80%9D%20below).

<sup>126</sup> Brynne Keith-Jennings, Joseph Llobrera, and Stacy Dean, "Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential," *American Journal of Public Health* 109, 1636-1640, November 6, 2019,

https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305325.

<sup>127</sup> Brynne Keith-Jennings, Joseph Llobrera, and Stacy Dean, "Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential," *American Journal of Public Health* 109, 1636-1640, November 6, 2019,

https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305325.

<sup>128</sup> Steven Carlson and Brynne Keith-Jennings, "SNAP Is Linked with Improved Nutritional Outcomes and Lower Health Care Costs," Center on Budget and Policy Priorities, January 17, 2018,

https://www.cbpp.org/research/food-assistance/snap-is-linked-with-improved-nutritional-outcomes-and-lower-health-care# ftnref14.

<sup>129</sup> Center on Budget and Policy Priorities, "Policy Basics: The Supplemental Nutrition Assistance Program (SNAP)," June 9, 2022,

 $\underline{https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap.}$ 

<sup>130</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-">https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-</a>

<u>children#:~:text=WIC%20provided%20an%20average%20value,%2D19%20Pandemic%E2%80%9D%20below</u>).

<sup>131</sup> Dottie Rosenbaum, Katie Bergh, and Lauren Hall, "Temporary Pandemic SNAP Benefits Will End in Remaining 35 States in March 2023," Center on Budget and Policy Priorities, February 6, 2023,

 $\frac{https://www.cbpp.org/research/food-assistance/temporary-pandemic-snap-benefits-will-end-in-remaining-35-states-in-march.}{$ 

- <sup>132</sup> U.S. Department of Agriculture, "SNAP and the Thrifty Food Plan," <a href="https://www.fns.usda.gov/snap/thriftyfoodplan">https://www.fns.usda.gov/snap/thriftyfoodplan</a>.
- <sup>133</sup> Zoë Neuberger, "WIC Needs Additional Funding to Avoid Forcing New Parents and Young Children Onto Waiting Lists," Center on Budget and Policy Priorities, June 12, 2023, <a href="https://www.cbpp.org/blog/wic-needs-additional-funding-to-avoid-forcing-new-parents-and-young-children-onto-waiting">https://www.cbpp.org/blog/wic-needs-additional-funding-to-avoid-forcing-new-parents-and-young-children-onto-waiting</a>.
- <sup>134</sup> Zoë Neuberger, "WIC Needs Additional Funding to Avoid Forcing New Parents and Young Children Onto Waiting Lists," Center on Budget and Policy Priorities, June 12, 2023, <a href="https://www.cbpp.org/blog/wic-needs-additional-funding-to-avoid-forcing-new-parents-and-young-children-onto-waiting">https://www.cbpp.org/blog/wic-needs-additional-funding-to-avoid-forcing-new-parents-and-young-children-onto-waiting</a>.
- <sup>135</sup> Zoë Neuberger, "WIC Needs Additional Funding to Avoid Forcing New Parents and Young Children Onto Waiting Lists," Center on Budget and Policy Priorities, June 12, 2023, <a href="https://www.cbpp.org/blog/wic-needs-additional-funding-to-avoid-forcing-new-parents-and-young-children-onto-waiting">https://www.cbpp.org/blog/wic-needs-additional-funding-to-avoid-forcing-new-parents-and-young-children-onto-waiting</a>.
- <sup>136</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-children#:~:text=WIC%20provided%20an%20average%20value,-19%20Pandemic%E2%80%9D%20below.
- <sup>137</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-children#:~:text=WIC%20provided%20an%20average%20value,-19%20Pandemic%E2%80%9D%20below.
- 138 Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-children#:~:text=WIC%20provided%20an%20average%20value,-19%20Pandemic%E2%80%9D%20below.">https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-children#:~:text=WIC%20provided%20an%20average%20value,-19%20Pandemic%E2%80%9D%20below.</a>

<sup>139</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-">https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-</a>

children#:~:text=WIC%20provided%20an%20average%20value.-19%20Pandemic%E2%80%9D%20below.

<sup>140</sup> Center on Budget and Policy Priorities, "Policy Basics: Special Supplemental Nutrition Program for Women, Infants, and Children," October 5, 2022, <a href="https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-">https://www.cbpp.org/research/food-assistance/special-supplemental-nutrition-program-for-women-infants-and-</a>

children#:~:text=WIC%20provided%20an%20average%20value,-

19%20Pandemic%E2%80%9D%20below.

<sup>141</sup> Zoë Neuberger, "Permanent Summer Grocery Benefits Are a Big Win for Children in Low-Income Families, Despite Disappointing Tradeoffs," Center on Budget and Policy Priorities, December 20, 2022,

https://www.cbpp.org/blog/permanent-summer-grocery-benefits-are-a-big-win-for-children-in-low-income-families-

despite#:~:text=The%20new%20Summer%20EBT%20benefits,children%20in%20families%20receiving%20SNAP.

<sup>142</sup> Lauren Bauer, Krista Ruffini, and Diane Whitmore Schanzenbach, "An update on the effect of Pandemic EBT on measures of food hardship," Brookings Institution, September 29, 2021,

https://www.brookings.edu/articles/an-update-on-the-effect-of-pandemic-ebt-on-measures-of-food-hardship/.

<sup>143</sup> Zoë Neuberger, "Permanent Summer Grocery Benefits Are a Big Win for Children in Low-Income Families, Despite Disappointing Tradeoffs," Center on Budget and Policy Priorities, December 20, 2022,

 $\underline{https://www.cbpp.org/blog/permanent-summer-grocery-benefits-are-a-big-win-for-children-in-low-income-families-}$ 

despite#:~:text=The%20new%20Summer%20EBT%20benefits,children%20in%20families%20receiving%20SNAP.

<sup>144</sup> Joint Economic Committee, "Updated SNAP Benefit Levels Will Help 42 Million People and Add \$31.8 Billion in Local Economic Activity Every Year," September 16, 2021,

https://www.jec.senate.gov/public/index.cfm/democrats/issue-

briefs?ID=C9612C05-8504-4B39-82DB-E45C9E05B36C.

<sup>145</sup> Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, Labor Force Participation Rate, Percent, Seasonally Adjusted, https://fred.stlouisfed.org/series/CIVPART.

<sup>146</sup> Shibata Ippei, "The distributional impact of recessions: The global financial crisis and the COVID-19 pandemic recession," *J Econ Bus*. May-Jun

2021, Vol. 115, No. 105971,

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9183946/.

- <sup>147</sup> Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, Labor Force Participation Rate, Percent, Seasonally Adjusted, <a href="https://fred.stlouisfed.org/series/CIVPART">https://fred.stlouisfed.org/series/CIVPART</a>.
- <sup>148</sup> Council of Economic Advisors, "The Labor Supply Rebound from the Pandemic,' April 17, 2023, <a href="https://www.whitehouse.gov/cea/written-materials/2023/04/17/the-labor-supply-rebound-from-the-pandemic/">https://www.whitehouse.gov/cea/written-materials/2023/04/17/the-labor-supply-rebound-from-the-pandemic/</a>.
- <sup>149</sup> Bureau of Labor Statistics, (Seas) Labor Force Participation Rate 25-54 yrs., percent, <a href="https://beta.bls.gov/dataViewer/view/timeseries/LNS11300060">https://beta.bls.gov/dataViewer/view/timeseries/LNS11300060</a>. <sup>150</sup> Council of Economic Advisors, "The Labor Supply Rebound from the Pandemic,' April 17, 2023, <a href="https://www.whitehouse.gov/cea/written-materials/2023/04/17/the-labor-supply-rebound-from-the-pandemic/">https://www.whitehouse.gov/cea/written-materials/2023/04/17/the-labor-supply-rebound-from-the-pandemic/</a>.
- <sup>151</sup> Bureau of Labor Statistics, (Seas) Labor Force Participation Rate 25-54 yrs., percent, <a href="https://beta.bls.gov/dataViewer/view/timeseries/LNS11300060">https://beta.bls.gov/dataViewer/view/timeseries/LNS11300060</a>.

  <sup>152</sup> Executive Office of the President of the United States, "The Labor Force
- Participation Rate Since 2007: Causes and Policy Implications," July 2014, <a href="https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf">https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf</a>.
- <sup>153</sup> Executive Office of the President of the United States, "The Labor Force Participation Rate Since 2007: Causes and Policy Implications," July 2014, <a href="https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf">https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf</a>.
- <sup>154</sup> Executive Office of the President of the United States, "The Labor Force Participation Rate Since 2007: Causes and Policy Implications," July 2014, <a href="https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf">https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf</a>.
- <sup>155</sup> Michelle J.K. Osterman, Brady E. Hamilton, Joyce A. Martin, Anne K. Driscoll, and Claudia P. Valenzuela, "Births: Final Data for 2021," National Vital Statistics Reports, January 31, 2023,

https://www.cdc.gov/nchs/data/nvsr/nvsr72/nvsr72-01.pdf.

- <sup>156</sup> Executive Office of the President of the United States, "The Labor Force Participation Rate Since 2007: Causes and Policy Implications," July 2014, <a href="https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf">https://obamawhitehouse.archives.gov/sites/default/files/docs/labor-force-participation-report.pdf</a>.
- <sup>157</sup> Robert Kaestner, Bowen Garrett, Anuj Gangopadhyaya, and Caitlyn Fleming, "Effects of ACA Medicaid Expansions on Health Insurance Coverage and Labor Supply," National Bureau of Economic Research,

Working Paper 21836,

https://www.nber.org/system/files/working\_papers/w21836/w21836.pdf.

- <sup>158</sup> Bureau of Business and Economic Research, University of Montana, "The Economic Impact of Medicaid Expansion in Montana," April 2018, <a href="https://mthcf.org/wp-content/uploads/2018/04/BBER-MT-Medicaid-Expansion-Report">https://mthcf.org/wp-content/uploads/2018/04/BBER-MT-Medicaid-Expansion-Report</a> 4.11.18.pdf.
- <sup>159</sup> The Ohio Department of Medicaid, "Ohio Medicaid Group VIII Assessment: A Report to the Ohio General Assembly," 2016, <a href="https://medicaid.ohio.gov/wps/wcm/connect/gov/b0779c0a-5061-45f9-b441-9bf06e2f0070/Group-VIII-">https://medicaid.ohio.gov/wps/wcm/connect/gov/b0779c0a-5061-45f9-b441-9bf06e2f0070/Group-VIII-</a>
- <u>Assessment.pdf?MOD=AJPERES&amp:CONVERT\_TO=url&amp:CACHEID=ROOTWORKSPACE.Z18\_M1HGGIK0N0JO00QO9DDDDM3000-b0779c0a-5061-45f9-b441-9bf06e2f0070-nAURfxy.</u>
- <sup>160</sup> Renuka Tipirneni, John Ayanian, Jeffrey Kullgren, Susan Goold, Edith Kieffer, Tammy Chang, Adrianne Haggins, and Sarah Clark, Sunghee Lee, "Medicaid Expansion Helped Enrollees Do Better at Work or in Job Searches," Institute for Healthcare Policy and Innovation, University of Michigan, June 27, 2017, <a href="https://ihpi.umich.edu/news/medicaid-expansion-helped-enrollees-do-better-work-or-job-searches">https://ihpi.umich.edu/news/medicaid-expansion-helped-enrollees-do-better-work-or-job-searches</a>.
- <sup>161</sup> Rogier M. van Rijn, Suzan J. W. Robroek, Sandra Brouwer, and Alex Burdof, "Influence of poor health on exit from paid employment: a systematic review," *Occupational and Environmental Medicine*, Vol. 71, 295-301, 2014, <a href="https://oem.bmj.com/content/71/4/295/">https://oem.bmj.com/content/71/4/295/</a>.
- <sup>162</sup> Peter Warr, "Well-being and the workplace," *Well-being: The foundations of hedonic psychology*, 392-412, Russell Sage Foundation, 1999, <a href="https://psycnet.apa.org/record/1999-02842-020">https://psycnet.apa.org/record/1999-02842-020</a>.
- <sup>163</sup> Organization for Economic Co-operation and Development, "Indicator A3. How does educational attainment a ffect participation in the labour market?" *Education at a Glance 2022: OECD Indicators*, OECD Publishing, October 3, 2022, <a href="https://www.oecd-tilbrary.org/sites/0c0b63ae-">https://www.oecd-tilbrary.org/sites/0c0b63ae-</a>
- $\underline{en/index.html?itemId=\!/content/component/0c0b63ae\text{-}en}.$
- <sup>164</sup> Bureau of Labor Statistics, "Education Pays, 2021," May 2022, https://www.bls.gov/careeroutlook/2022/data-on-display/education-pays.htm.
- $\underline{en/index.html?itemId=/content/component/0c0b63ae-en}.$
- <sup>166</sup> Maria Esther Oswald-Egg and Ursula Renold, "No experience, no employment: The effect of vocational education and training work experience

on labour market outcomes after higher education," *Economics of Education Review*, Vol. 80, February 2021,

https://www.sciencedirect.com/science/article/pii/S0272775720305513.

<sup>167</sup> Maúna Soares de Baldini Rocha and Vladimir Ponczek, "The effects of adult literacy on earnings and employment," *Economics of Education Review*, Vol. 30, 755-764, August 2011.

https://www.sciencedirect.com/science/article/abs/pii/S0272775711000483.

<sup>168</sup> Organization for Economic Co-operation and Development, "Building inclusive labour markets: active labour market policies for the most vulnerable groups," October 25, 2021, <a href="https://read.oecd-">https://read.oecd-</a>

ilibrary.org/view/?ref=1112 1112680-u38fb4etmq&title=Building-inclusive-labour-markets-active-labour-market-policies-for-the-most-vulnerable-groups.

- <sup>169</sup> George Zuo, "Wired and Hired: Employment Effects of Subsidized Broadband Internet for Low-Income Americans," *American Economic Journal: Economic Policy*, Vol. 13, No. 3, 447-482, August 2021, https://www.aeaweb.org/articles?id=10.1257/pol.20190648.
- <sup>170</sup> Lisa Dettling, "Broadband in the Labor Market: The Impact of Residential High-Speed Internet on Married Women's Labor Force Participation," Federal Reserve Board, February 2015,

https://www.federalreserve.gov/pubs/feds/2013/201365/201365pap.pdf.

- <sup>171</sup> Government Accountability Office, "Telecommunications Workforce: Additional Workers Will Be Needed to Deploy Broadband, but Concerns Exist About Availability," December 15, 2022, https://www.gao.gov/products/gao-23-105626.
- <sup>172</sup> The Annie E. Casey Foundation, "2023 Kids Count Data Book: 2023 State Trends in Child Well-Being," June 14, 2023,

https://www.aecf.org/resources/2023-kids-count-data-book.

- <sup>173</sup> Francesco Grigoli, Zsóka Kóczán, and Petia Topalova, "Wanted: Policies to Encourage and Enable Work in Advanced Economies," IMF Blog, April 9, 2018, <a href="https://www.imf.org/en/Blogs/Articles/2018/04/09/wanted-policies-to-encourage-and-enable-work-in-advanced-economies">https://www.imf.org/en/Blogs/Articles/2018/04/09/wanted-policies-to-encourage-and-enable-work-in-advanced-economies</a>.
- <sup>174</sup> New American Economy, "Immigration and America's Growth," March 26, 2020, <a href="https://data.newamericaneconomy.org/en/immigration-aging-workforce/">https://data.newamericaneconomy.org/en/immigration-aging-workforce/</a>.
- <sup>175</sup> Joint Economic Committee, "The Contributions of Immigrants Are Essential to U.S. Economic Growth and Competitiveness," December 14, 2022, <a href="https://www.jec.senate.gov/public/cache/files/bbe8da67-3ebf-4ac8-b3c1-62faca709e8b/final-immigrants-and-economy.pdf">https://www.jec.senate.gov/public/cache/files/bbe8da67-3ebf-4ac8-b3c1-62faca709e8b/final-immigrants-and-economy.pdf</a>.

- <sup>176</sup> Bipartisan Policy Center, "Reforming Employment-Based Immigration," July 27, 2022, <a href="https://bipartisanpolicy.org/report/reforming-employment-based-immigration/">https://bipartisanpolicy.org/report/reforming-employment-based-immigration/</a>.
- $^{177}$  Amelia Cheatham and Diana Roy, "What Is Canada's Immigration Policy?", Council on Foreign Relations, March 7, 2023,
- https://www.cfr.org/backgrounder/what-canadas-immigration-policy.
- <sup>178</sup> Joint Economic Committee, "Modernizing the Schedule A Occupation List Can Help The United States Address Key Employment Shortages", June 30, 2023, <a href="https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?ID=BDFE9EB0-1E17-4BA2-B3D0-C13A6CF31123">https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?ID=BDFE9EB0-1E17-4BA2-B3D0-C13A6CF31123</a>.
- <sup>179</sup> Arvind Magesan, "Nobel winner David Card shows immigrants don't reduce the wages of native-born workers," *The Conversation*, October 14, 2021, <a href="https://theconversation.com/nobel-winner-david-card-shows-immigrants-dont-reduce-the-wages-of-native-born-workers-169768">https://theconversation.com/nobel-winner-david-card-shows-immigrants-dont-reduce-the-wages-of-native-born-workers-169768</a>.
- <sup>180</sup> Dany Bahar, Carlos Daboin Contreras, and Greg Wright "The immigrant workforce supports millions of US jobs," Brookings Institute, October 17, 2022, <a href="https://www.brookings.edu/blog/future-development/2022/10/17/the-immigrant-workforce-supports-millions-of-u-s-jobs/">https://www.brookings.edu/blog/future-development/2022/10/17/the-immigrant-workforce-supports-millions-of-u-s-jobs/</a>.
- <sup>181</sup> Elior Cohen and Samantha Shampine, "Immigration Shortfall May Be a Headwind for Labor Supply", Federal Reserve Bank of Kansas City, May 11, 2022 <a href="https://www.kansascityfed.org/research/economic-bulletin/immigration-shortfall-may-be-a-headwind-for-labor-">https://www.kansascityfed.org/research/economic-bulletin/immigration-shortfall-may-be-a-headwind-for-labor-</a>
- supply/#:~:text=Reduced% 20immigration% 20is,pre% 2Dpandemic % 20levels.
- <sup>182</sup> Gaetano Basso and Giovanni Peri, "Internal Mobility: The Greater Responsiveness of Foreign-Born to Economic Conditions," *Journal of Economic Perspectives*, Vol. 34, No. 3, 77-90, 2020, https://www.aeaweb.org/articles?id=10.1257/jep.34.3.77.
- <sup>183</sup> Ladonna Pavetti, Ed Bolen, Laura Harker, Allison Orris, and Alicia Mazzara, "Expanding Work Requirements Would Make It Harder for People to Meet Basic Needs," Center on Budget and Policy Priorities, March 15, 2023, <a href="https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#</a> ftnref6.
- <sup>184</sup> Madeline Guth, Patrick Drake, Robin Rudowitz, and Maiss Mohamed, "Understanding the Intersection of Medicaid & Work: A Look at What the Data Say," KFF, April 24, 2023, <a href="https://www.kff.org/medicaid/issue-brief/understanding-the-intersection-of-medicaid-work-a-look-at-what-the-data-say/">https://www.kff.org/medicaid/issue-brief/understanding-the-intersection-of-medicaid-work-a-look-at-what-the-data-say/</a>.
- <sup>185</sup> U.S. Centers for Medicare & Medicaid Services, "State Medicaid and CHIP Applications, Eligibility Determinations, and Enrollment Data," February 1, 2020, <a href="https://data.medicaid.gov/dataset/6165f45b-ca93-5bb5-">https://data.medicaid.gov/dataset/6165f45b-ca93-5bb5-</a>

9d06-

db29c692a360/data?conditions%5b0%5d%5bresource%5d=t&conditions%5b 0%5d%5bproperty%5d=preliminary\_updated&conditions%5b0%5d%5bvalue %5d=U&conditions%5b0%5d%5boperator%5d=%3D&conditions%5b1%5d %5bresource%5d=t&conditions%5b1%5d%5bproperty%5d=report\_date&conditions%5b1%5d%5bvalue%5d=02/01/2020&conditions%5b1%5d%5boperator%5d==.

<sup>186</sup> Center on Budget and Policy Priorities, "Program Participation Data Dashboard," May 5, 2023,

https://apps.cbpp.org/program participation/#table/357/snap.

<sup>187</sup> Ladonna Pavetti, Ed Bolen, Laura Harker, Allison Orris, and Alicia Mazzara, "Expanding Work Requirements Would Make It Harder for People to Meet Basic Needs," Center on Budget and Policy Priorities, March 15, 2023, <a href="https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet# ftnref6</a>.

<sup>188</sup> U.S. Department of Health and Human Services, "FACT SHEET: Medicaid Work Requirements Would Jeopardize Health Coverage and Access to Care for 21 Million Americans,"

 $\underline{https://www.hhs.gov/sites/default/files/national-work-requirements-fact-sheet.pdf.}$ 

<sup>189</sup> Gideon Lukens, "McCarthy Medicaid Proposal Puts Millions of People in Expansion States at Risk of Losing Health Coverage," Center on Budget and Policy Priorities, April 21, 2023,

https://www.cbpp.org/research/health/mccarthy-medicaid-proposal-puts-millions-of-people-in-expansion-states-at-risk-of.

<sup>190</sup> Colin Gray, Adam Leive, Elena Prager, Kelsey B. Pukelis, and Mary Zaki, "Employed in a SNAP? The Impact of Work Requirements on Program Participation and Labor Supply," National Bureau of Economic Research, Working Paper 28877, June 2021,

https://www.nber.org/system/files/working\_papers/w28877/w28877.pdf.

- <sup>191</sup> Iris Arbogast, Anna Chorniy, and Janet Currie, "Administrative Burdens and Child Medicaid Enrollments," National Bureau of Economic Research, Working Paper 30580, October 2022, https://www.nber.org/papers/w30580.
- <sup>192</sup> Federal rules do not permit states to institute work requirements, but some states have experimented with them, particularly during the Trump administration.
- <sup>193</sup> Jennifer Wagner and Jessica Schubel, "States' Experiences Confirm Harmful Effects of Medicaid Work Requirements," Center on Budget and Policy Priorities, November 18, 2020,

 $\underline{https://www.cbpp.org/research/health/states-experiences-confirm-harmful-effects-of-medicaid-work-requirements.}$ 

- <sup>194</sup> Jennifer Wagner and Jessica Schubel, "States' Experiences Confirm Harmful Effects of Medicaid Work Requirements," Center on Budget and Policy Priorities, November 18, 2020,
- $\frac{https://www.cbpp.org/research/health/states-experiences-confirm-harmful-effects-of-medicaid-work-requirements}.$
- <sup>195</sup> Ladonna Pavetti, Ed Bolen, Laura Harker, Allison Orris, and Alicia Mazzara, "Expanding Work Requirements Would Make It Harder for People to Meet Basic Needs," Center on Budget and Policy Priorities, March 15, 2023, <a href="https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet# ftnref6</a>.
- <sup>196</sup> Center on Budget and Policy Priorities, "Taking Away Medicaid for Not Meeting Work Requirements Harms People with Mental Health Conditions," March 10, 2020, <a href="https://www.cbpp.org/research/health/taking-away-medicaid-for-not-meeting-work-requirements-harms-people-with-mental">https://www.cbpp.org/research/health/taking-away-medicaid-for-not-meeting-work-requirements-harms-people-with-mental</a>.
- <sup>197</sup> Center on Budget and Policy Priorities, "Taking Away Medicaid for Not Meeting Work Requirements Harms People with Disabilities," March 10, 2020, <a href="https://www.cbpp.org/research/health/taking-away-medicaid-for-not-meeting-work-requirements-harms-people-with">https://www.cbpp.org/research/health/taking-away-medicaid-for-not-meeting-work-requirements-harms-people-with</a>.
- <sup>198</sup> Center on Budget and Policy Priorities, "Taking Away Medicaid for Not Meeting Work Requirements Harms People With Substance Use Disorders," March 10, 2020, <a href="https://www.cbpp.org/research/health/taking-away-medicaid-for-not-meeting-work-requirements-harms-people-with-substance">https://www.cbpp.org/research/health/taking-away-medicaid-for-not-meeting-work-requirements-harms-people-with-substance</a>.
- <sup>199</sup> Ladonna Pavetti, Ed Bolen, Laura Harker, Allison Orris, and Alicia Mazzara, "Expanding Work Requirements Would Make It Harder for People to Meet Basic Needs," Center on Budget and Policy Priorities, March 15, 2023, <a href="https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-would-make-it-harder-for-people-to-meet#">https://www.cbpp.org/research/poverty-and-inequality/expanding-work-requirements-people-to-mee
- <sup>200</sup> Goldman Sachs, "Generative AI could raise global GDP by 7%," 2023, https://www.goldmansachs.com/intelligence/pages/generative-ai-could-raise-global-gdp-by-7-percent.html.
- <sup>201</sup> The White House, "The Impact of Artificial Intelligence On The Future Of Workforces In The European Union And The United States Of America," 2022, <a href="https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf</a>.
- <sup>202</sup> Erik Brynjolfsson, Danille Li, and Lindsey Raymond, "Generative AI at Work," National Bureau of Economic Research, Working Paper 31161, April 2023, https://doi.org/10.3386/w31161.

<sup>203</sup> The White House, "The Impact of Artificial Intelligence On The Future Of Workforces In The European Union And The United States Of America," 2022, <a href="https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf</a>.

<sup>204</sup> Andrea Gallego, Matt Krentz, Miki Tsusaka, Nadjia Yousif, and Frances Brooks Taplett, "How AI Could Help—or Hinder—Women in the Workforce," Boston Consulting Group, May 13, 2019, <a href="https://www.bcg.com/publications/2019/artificial-intelligence-ai-help-hinder-women-workforce">https://www.bcg.com/publications/2019/artificial-intelligence-ai-help-hinder-women-workforce</a>.

<sup>205</sup> Andrea Gallego, Matt Krentz, Miki Tsusaka, Nadjia Yousif, and Frances Brooks Taplett, "How AI Could Help—or Hinder—Women in the Workforce," Boston Consulting Group, May 13, 2019, <a href="https://www.bcg.com/publications/2019/artificial-intelligence-ai-help-hinder-women-workforce">https://www.bcg.com/publications/2019/artificial-intelligence-ai-help-hinder-women-workforce</a>.

<sup>206</sup> Andrea Gallego, Matt Krentz, Miki Tsusaka, Nadjia Yousif, and Frances Brooks Taplett, "How AI Could Help—or Hinder—Women in the Workforce," Boston Consulting Group, May 13, 2019, <a href="https://www.bcg.com/publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-intelligence-ai-help-hinder-to-mailto-publications/2019/artificial-hinder-to-mailto-publications/2019/artificial-hinder-to-mailt

https://www.bcg.com/publications/2019/artificial-intelligence-ai-help-hinder-women-workforce.

 $^{207}$  Clementine Collett, Gina Neff, and Livia Gouvea Gomes, "The effects of AI on the working lives of women," UNESCO, 2022,

https://unesdoc.unesco.org/ark:/48223/pf0000380861.

World Economic Forum, "Towards a Reskilling Revolution Industry-Led Action for the Future of Work" Centre for New Economy and Society Insight Report," In collaboration with Boston Consulting Group, 2019,

https://www3.weforum.org/docs/WEF Towards a Reskilling Revolution.pdf

<sup>209</sup> Andrea Gallego, Matt Krentz, Miki Tsusaka, Nadjia Yousif, and Frances Brooks Taplett, "How AI Could Help—or Hinder—Women in the Workforce," Boston Consulting Group, May 13, 2019,

https://www.bcg.com/publications/2019/artificial-intelligence-ai-help-hinder-women-workforce.

<sup>210</sup> Brent Orrell, "AI and the Future of Work: Preparing the Workforce for an AI-Driven Economy," March 31, 2023,

https://www.uschamber.com/technology/ai-and-the-future-of-work.

<sup>211</sup> Cecilia Kang, "OpenAI's Sam Altman Urges A.I. Regulation in Senate Hearing," *The New York Times*, May 16, 2023,

 $\frac{https://www.nytimes.com/2023/05/16/technology/openai-altman-artificial-intelligence-regulation.html.}{}$ 

<sup>212</sup> UNESCO, "The effects of AI on the working lives of women," UNESCO, 2022, https://unesdoc.unesco.org/ark:/48223/pf0000380861.

<sup>213</sup> The White House, "The impact of artificial intelligence on the future of workforces in the European Union and the United States of America," 2022, <a href="https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf</a>.

- <sup>214</sup>Jon Kleinberg, Himabindu Lakkaraju, Jure Leskovec, Jens Ludwig, J., and Sendhil Mulla inathan, "Human Decisions and Machine Predictions\*," *The Quarterly Journal of Economics*, Vol. 133, No. 1, 237-293, 2017, <a href="https://doi.org/10.1093/qje/qjx032">https://doi.org/10.1093/qje/qjx032</a>.
- <sup>215</sup> Emily Aiken, Suzanne Bellue, Dean Karlan, Christopher Udry, and Joshua Evan Blumenstock, "Machine Learning and Mobile Phone Data Can Improve the Targeting of Humanitarian Assistance," *SSRN Electronic Journal*, 2021, https://doi.org/10.2139/ssrn.3889599.
- <sup>216</sup> The White House, "The impact of artificial intelligence on the future of workforces in the European Union and the United States of America," 2022, <a href="https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf</a>.
- <sup>217</sup> The White House, "Blueprint for an AI Bill of Rights," 2022, <a href="https://www.whitehouse.gov/ostp/ai-bill-of-rights/">https://www.whitehouse.gov/ostp/ai-bill-of-rights/</a>.
- <sup>218</sup> The White House, "Executive Order on Further Advancing Racial Equity and Support for Underserved Communities Through The Federal Government," February 16, 2023, <a href="https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/">https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/">https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/">https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/</a>.
- <sup>219</sup> U.S. Senator Martin Heinrich, "Heinrich, Portman Launch Bipartisan Artificial Intelligence Caucus," March 13, 2019, <a href="https://www.heinrich.senate.gov/newsroom/press-releases/heinrich-portman-launch-bipartisan-artificial-intelligence-caucus">https://www.heinrich.senate.gov/newsroom/press-releases/heinrich-portman-launch-bipartisan-artificial-intelligence-caucus</a>.
- <sup>220</sup> U.S. Congressman Michael McCaul, "Congressional AI Caucus Co-Chairs announce Vice-Chairs and new core initiative," March 30, 2022, <a href="https://mccaul.house.gov/media-center/press-releases/congressional-ai-caucus-co-chairs-announce-vice-chairs-and-new-core">https://mccaul.house.gov/media-center/press-releases/congressional-ai-caucus-co-chairs-announce-vice-chairs-and-new-core</a>.
- <sup>221</sup> U.S. National Science Foundation, "NSF announces 7 new National Artificial Intelligence Research Institutes," May 8, 2023, <a href="https://www.nsf.gov/news/news\_summ.jsp?cntnid=307446&org=BCS#:~:text=May%208%2C%202023&text=The%20U.S.%20National%20Science%20Foundation">https://www.nsf.gov/news/news\_summ.jsp?cntnid=307446&org=BCS#:~:text=May%208%2C%202023&text=The%20U.S.%20National%20Science%20Foundation</a>.
- <sup>222</sup> U.S. Department of Energy Staff Briefing, "Artificial Intelligence: Update from the Department of Energy and the National Labs," June 22, 2023.

<sup>223</sup> National Artificial Intelligence Research Resource Task Force,

"Strengthening and Democratizing the U.S. Artificial Intelligence Innovation Ecosystem An Implementation Plan for a National Artificial Intelligence Research Resource," 2023, <a href="https://www.ai.gov/wp-">https://www.ai.gov/wp-</a>

content/uploads/2023/01/NAIRR-TF-Final-Report-2023.pdf.

- <sup>224</sup> The White House, "The impact of artificial intelligence on the future of workforces in the European Union and the United States of America," 2022, <a href="https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf</a>.
- <sup>225</sup> U.S. Senator Martin Heinrich, "Senators Heinrich, Wyden, Lummis Introduce Bipartisan Bill To Protect Americans' Data From Unfriendly Foreign Nations," *Los Almos Daily Post*, June 20, 2023,

https://ladailypost.com/u-s-Senators-heinrich-wyden-lummis-introduce-bipartisan-bill-to-protect-americans-data-from-unfriendly-foreign-nations/.

- <sup>226</sup> David Brancaccio and Rose Conlon, "Union membership fell in 2021, despite high-profile campaigns. Where do workers go from here?", *Marketplace*, January 30, 2022,
- $\frac{https://www.marketplace.org/2022/01/31/union-membership-fell-in-2021-despite-high-profile-campaigns-where-do-workers-go-from-here/.$
- <sup>227</sup> Asha Banerjee, Margaret Poydock, Celine McNicholas, Ihna Mangundayao, and Ali Sait, "Unions are not only good for workers, they're good for communities and for democracy", Economic Policy Institute, December 15, 2021, https://www.epi.org/publication/unions-and-well-being/.
- <sup>228</sup> Economic Policy Institute, "Unions help reduce disparities and strengthen our democracy," April 23, 2021, <a href="https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/">https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/</a>.
- <sup>229</sup> Economic Policy Institute, "Unions help reduce disparities and strengthen our democracy," April 23, 2021, <a href="https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/">https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/</a>.
- <sup>230</sup> Washington Center for Equitable Growth, "Factsheet: How strong unions can restore workers' bargaining power," May 1, 2020, <a href="https://equitablegrowth.org/factsheet-how-strong-unions-can-restore-workers-bargaining-power/">https://equitablegrowth.org/factsheet-how-strong-unions-can-restore-workers-bargaining-power/</a>.
- <sup>231</sup> James Gilbert Cassedy, "African Americans and the American Labor Movement," *Prologue Magazine*, Vol. 29, No. 2, 1997, <a href="https://www.archives.gov/publications/prologue/1997/summer/american-labor-movement.html">https://www.archives.gov/publications/prologue/1997/summer/american-labor-movement.html</a>.
- <sup>232</sup> Chris Fuchs, "150 Years Ago, Chinese Railroad Workers Staged the Era's Largest Labor Strike," *NBC News*, June 21, 2017,

 $\frac{https://www.nbcnews.com/news/asian-america/150-years-ago-chinese-railroad-workers-staged-era-s-largest-n774901.$ 

- <sup>233</sup> Zara gosa Vargas, "American Latino Theme Study: Labor," National Park Service, <a href="https://www.nps.gov/articles/latinothemelabor.htm">https://www.nps.gov/articles/latinothemelabor.htm</a>.
- <sup>234</sup> James Gilbert Cassedy, "African Americans and the American Labor Movement," *Prologue Magazine*, Vol. 29, No. 2, 1997, https://www.archives.gov/publications/prologue/1997/summer/american-
- https://www.archives.gov/publications/prologue/1997/summer/american-labor-movement.html.
- <sup>235</sup> Zaragosa Vargas<u>, "American Latino Theme Study: Labor," National Park Service</u>, https://www.nps.gov/articles/latinothemelabor.htm.
- <sup>236</sup> Chris Fuchs, "150 Years Ago, Chinese Railroad Workers Staged the Era's Largest Labor Strike," *NBC News*, June 21, 2017, <a href="https://www.nbcnews.com/news/asian-america/150-years-ago-chinese-railroad-workers-staged-era-s-largest-n774901">https://www.nbcnews.com/news/asian-america/150-years-ago-chinese-railroad-workers-staged-era-s-largest-n774901</a>.
- <sup>237</sup> Lesley Solomon, "Japanese Exclusion and the American Labor Movement: 1900 to 1924," *Education About* Asia, Vol. 17, No. 3, Association for Asian Studies, 2012.
- https://www.asianstudies.org/publications/eaa/archives/japanese-exclusion-and-the-american-labor-movement-1900-to-1924/.
- <sup>238</sup> Bureau of Labor Statistics, "Union Members 2022," January 19, 2023, <a href="https://www.bls.gov/news.release/pdf/union2.pdf">https://www.bls.gov/news.release/pdf/union2.pdf</a>.
- <sup>239</sup> Reckoning Trade, "How The PRO Act Impacts Marginalized Workers," July 7, 2021, <a href="https://reckoningtradeproject.org/2021/07/07/how-pro-act-impacts-marginalized-workers/">https://reckoningtradeproject.org/2021/07/07/how-pro-act-impacts-marginalized-workers/</a>.
- <sup>240</sup> Economic Policy Institute, "Unions help reduce disparities and strengthen our democracy," April 23, 2021, <a href="https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/">https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/</a>.
- <sup>241</sup> Aurelia Glass, David Madland, and Christian E. Weller, "Unions Help Increase Wealth for All and Close Racial Wealth Gaps," September 6, 2021, Center for American Progress,
- https://www.americanprogress.org/article/unions-help-increase-wealth-close-racial-wealth-gaps/.
- <sup>242</sup> Heidi Shierholz, Margaret Poydock, John Schmitt, and Celine McNicholas "Latest data release on unionization is a wake-up call to lawmakers," Economic Policy Institute, January 20, 2022,
- $\underline{https://www.epi.org/publication/latest-data-release-on-unionization-is-a-wake-\underline{up-call-to-lawmakers/}.}$

- <sup>243</sup> Economic Policy Institute, "Unions help reduce disparities and strengthen our democracy," April 23, 2021, <a href="https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/">https://www.epi.org/publication/unions-help-reduce-disparities-and-strengthen-our-democracy/</a>.
- <sup>244</sup> Jessie HF Hammerling, "The Inflation Reduction Act Charts a Path that is Pro-Climate and Pro-Worker," UC Berkeley Labor Center, August 18, 2022, <a href="https://laborcenter.berkeley.edu/ira-charts-a-path-that-is-both-pro-climate-and-pro-worker/">https://laborcenter.berkeley.edu/ira-charts-a-path-that-is-both-pro-climate-and-pro-worker/</a>.
- <sup>245</sup> The White House, "FACT SHEET: The Bipartisan Infrastructure Investment and Jobs Act Creates Good-Paying Jobs and Supports Workers," August 3, 2021, <a href="https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/03/fact-sheet-the-bipartisan-infrastructure-investment-and-jobs-act-creates-good-paying-jobs-and-supports-workers/">https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/03/fact-sheet-the-bipartisan-infrastructure-investment-and-jobs-act-creates-good-paying-jobs-and-supports-workers/</a>.
- <sup>246</sup> Zachary Phillips, "Despite Biden PLA order, non-union contractors can win federal projects," Construction Dive, February 24, 2022, <a href="https://www.constructiondive.com/news/project-labor-agreement-pla-union-iija-bidens-executive-order/619320/">https://www.constructiondive.com/news/project-labor-agreement-pla-union-iija-bidens-executive-order/619320/</a>.
- <sup>247</sup> Richard Freeman, Eunice Han, David Madland and Brendan V. Duke, "How Does Declining Unionism Affect The American Middle Class And Intergenerational Mobility?," National Bureau of Economic Research, Working Paper 21638, October 2015,
- https://www.nber.org/system/files/working\_papers/w21638/w21638.pdf.
- <sup>248</sup> Celine McNicholas, Margaret Poydock, and Lynn Rhinehart, "How the PRO Act restores workers' right to unionize," Economic Policy Institute, February 4, 2021, <a href="https://www.epi.org/publication/pro-act-problem-solution-chart/">https://www.epi.org/publication/pro-act-problem-solution-chart/</a>.
- <sup>249</sup> Karl Russel and Christine Zhang, "3 Failed Banks This Year Were Bigger Than 25 That Crumbled in 2008," *The New York Times*, May 1, 2023, <a href="https://www.nytimes.com/interactive/2023/business/bank-failures-svb-first-republic-signature.html">https://www.nytimes.com/interactive/2023/business/bank-failures-svb-first-republic-signature.html</a>.
- <sup>250</sup> Rebecca Burns, David Sirota, Julia Rock, and Andrew Perez, "Silicon Valley Bank chief pressed Congress to weaken risk regulations," *The Guardian*, March 11, 2023,
- $\underline{https://www.theguardian.com/business/2023/mar/11/silicon-valley-bank-weaken-risk-regulations-svb}.$
- <sup>251</sup> Christopher J. Neely and Michelle Clark Neely, "Interest Rate Risk, Bank Runs and Silicon Valley Bank," The Federal Reserve Bank of St. Louis, May 11, 2023, <a href="https://www.stlouisfed.org/publications/regional-economist/2023/may/interest-rate-risk-bank-runs">https://www.stlouisfed.org/publications/regional-economist/2023/may/interest-rate-risk-bank-runs</a>.
- <sup>252</sup> Federal Deposit Insurance Corporation, "Recent Bank Failures and the Federal Regulatory Response" Statement of Chairman Martin J. Gruenberg

- before the U.S. Senate Committee on Banking, Housing and Urban Affairs, March 28, 2023, https://www.fdic.gov/news/speeches/2023/spmar2723.pdf.
- <sup>253</sup> Karl Evers-Hillstrom, "Bidding for First Republic lasts into the night: A guide to the latest banking crisis," *The Hill*, April 20, 2023,
- https://thehill.com/business/3911002-what-to-know-about-first-republic-bank.
- <sup>254</sup> Lawrence Delevingne, "Explainer: Why First Republic Bank failed and what JPMorgan's deal means," *Reuters*, May 1, 2023,
- https://www.reuters.com/business/finance/why-first-republic-bank-failed-what-jpmorgans-deal-means-2023-05-01/.
- <sup>255</sup> Hannah Levitt, Jenny Surane, and Sonali Basak. "First Republic: Cheap, interest-only jumbo mortgages to Silicon Valley's elite fueled the bank's failure," *The Los Angeles Times*, May 1, 2023,
- https://www.latimes.com/business/story/2023-05-01/first-republic-silicon-valley-jumbo-mortgages-fueled-bank-failure.
- <sup>256</sup> Ryan Hogg, "Why First Republic failed, and what it means for the rest of the banking industry," *Business Insider*, May 1, 2023,
- https://www.businessinsider.com/why-first-republic-failed-what-means-rest-banking-industry-2023-5.
- <sup>257</sup> German Lopez, "Another Bank Failure," *The New York Times*, May 2, 2023, <a href="https://www.nytimes.com/2023/05/02/briefing/bank-failures-first-republic-bank.html">https://www.nytimes.com/2023/05/02/briefing/bank-failures-first-republic-bank.html</a>.
- <sup>258</sup> The Board of Governors of the Federal Reserve System, "Transcript of Chair Powell's Press Conference," June 14, 2023,
- $\underline{https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20230614.p}\\\underline{df}.$
- <sup>259</sup> German Lopez, "Another Bank Failure," *The New York Times*, May 2, 2023, <a href="https://www.nytimes.com/2023/05/02/briefing/bank-failures-first-republic-bank.html">https://www.nytimes.com/2023/05/02/briefing/bank-failures-first-republic-bank.html</a>.
- <sup>260</sup> Douglas J. Elliott, "Regulating Systemically Important Financial Institutions That Are Not Banks," Brookings Institution, May 9, 2013, <a href="https://www.brookings.edu/research/regulating-systemically-important-financial-institutions-that-are-not-banks/">https://www.brookings.edu/research/regulating-systemically-important-financial-institutions-that-are-not-banks/</a>.
- <sup>261</sup> Rebecca Burns, David Sirota, Julia Rock, and Andrew Perez, "Silicon Valley Bank chief pressed Congress to weaken risk regulations," *The Guardian*, March 11, 2023,
- https://www.theguardian.com/business/2023/mar/11/silicon-valley-bank-weaken-risk-regulations-svb.
- <sup>262</sup> Alice Abboud, Elizabeth Duncan, Akos Horvath, Diana Iercosan, Bert Loudis, Francis Martinez, Timothy Mooney, Ben Ranish, Ke Wang, Missaka Warusawitharana, and Carlo Wix "COVID 19 as a Stress Test: Assessing the

Bank Regulatory Framework," Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series 2021-024, https://doi.org/10.17016/FEDS.2021.024.

- <sup>263</sup> Alan Rappeport and Emily Flitter, "Congress Approves First Big Dodd-Frank Rollback," *The New York Times*, May 22, 2018, <a href="https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-type-">https://www.nytimes.com/2018/05/22/business/congress-passes-pas
- https://www.nytimes.com/2018/05/22/business/congress-passes-dodd-frank-rollback-for-smaller-banks.html.
- <sup>264</sup> The Board of Governors of the Federal Reserve System, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," April 28, 2023, <a href="https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf">https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf</a>.
- <sup>265</sup> The Board of Governors of the Federal Reserve System, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," April 28, 2023, <a href="https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf">https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf</a>.
- <sup>266</sup> Mark Thompson, Liz Enochs, and Chris Isidore, "Silicon Valley Bank has a new owner. What it means for the bank crisis," *CNN Business*, March 27, 2023, <a href="https://www.cnn.com/2023/03/27/business/fdic-announces-first-citizens-purchase-silicon-valley-bank/index.html">https://www.cnn.com/2023/03/27/business/fdic-announces-first-citizens-purchase-silicon-valley-bank/index.html</a>.
- <sup>267</sup> Marc Labonte, "Silicon Valley Bank, Signature Bank, and P.L. 115-174: Part 2 (Issues Surrounding Their Failures)," Congressional Research Service, March 28, 2023, https://www.crs.gov/Reports/IN12130.
- <sup>268</sup> The Board of Governors of the Federal Reserve System, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," April 28, 2023, <a href="https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf">https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf</a>.
- <sup>269</sup> The Board of Governors of the Federal Reserve, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," April 28, 2023, <a href="https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf">https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf</a>.
- <sup>270</sup> Joint Economic Committee, "Dodd-Frank Roll Back Bill: A Windfall for Big Banks," March 6, 2018,
- $\frac{https://www.jec.senate.gov/public/index.cfm/democrats/2018/3/dodd-frank-roll-back-bill-a-windfall-for-big-banks.}{}$
- <sup>271</sup> U.S. Senator Martin Heinrich, "Heinrich Joins Democrats in Push for More Regulations After Bank Failures, Press Release," March 16, 2023, <a href="https://www.heinrich.senate.gov/newsroom/in-the-news/heinrich-joins-democrats-in-push-for-more-regulations-after-bank-failures.">https://www.heinrich.senate.gov/newsroom/in-the-news/heinrich-joins-democrats-in-push-for-more-regulations-after-bank-failures.</a>
- <sup>272</sup> Congress.gov, "S.817 118<sup>th</sup> Congress(2023-2024): The Secure Viable Banking Act," March 15, 2023, https://www.congress.gov/bill/118th-

congress/senate-

bill/817?s=1&r=1&q=%7B%22search%22%3A%5B%22Secure+Viable+Banking+Act%22%5D%7D.

<sup>273</sup> The Securities and Exchange Commission, "Investment Securities," June 30, 2020,

 $\frac{https://www.sec.gov/Archives/edgar/data/109380/000010938020000212/R12.}{htm.}$ 

- <sup>274</sup> The Board of Governors of the Federal Reserve System, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," April 28, 2023, <a href="https://www.federalreserve.gov/publications/files/syb-review-20230428.pdf">https://www.federalreserve.gov/publications/files/syb-review-20230428.pdf</a>.
- <sup>275</sup> Marc Labonte, "Silicon Valley Bank, Signature Bank, and P.L. 115-174: Part 2 (Issues Surrounding Their Failures)," CRS Insight, Congressional Research Service, March 28, 2023, https://www.crs.gov/Reports/IN12130.
- <sup>276</sup> The Board of Governors of the Federal Reserve System, "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," April 28, 2023, <a href="https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf">https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf</a>.
- <sup>277</sup> Office of the Comptroller of the Currency, "Applicability Thresholds for Regulatory Capital and Liquidity Requirements: Final Rule," November 1, 2019, <a href="https://www.occ.treas.gov/news-issuances/bulletins/2019/bulletin-2019-52.html">https://www.occ.treas.gov/news-issuances/bulletins/2019/bulletin-2019-52.html</a>.
- <sup>278</sup> The Federal Reserve Board of Governors, "Requirements for Domestic and Foreign Banking Organizations," October 19, 2019,

 $\underline{https://www.federal reserve.gov/about the fed/board meetings/files/tailoring-rule-visual-20191010.pdf}.$ 

- <sup>279</sup> First Republic Bank, "Basel III Regulatory Capital Disclosures," March 31, 2022, <a href="https://ir.firstrepublic.com/static-files/b347c339-588e-4d20-82cd-0a439f21e3a0">https://ir.firstrepublic.com/static-files/b347c339-588e-4d20-82cd-0a439f21e3a0</a>.
- <sup>280</sup> Marc Labonte, "Silicon Valley Bank, Signature Bank, and P.L. 115-174: Part 2 (Issues Surrounding Their Failures)," CRS Insight, Congressional Research Service, March 28, 2023, https://www.crs.gov/Reports/IN12130.
- <sup>281</sup> Jonathan Schwantes, "How Cable Companies Use Hidden Fees to Raise Prices and Disguise the True Cost of Service," Consumer Reports, October 2019, <a href="https://advocacy.consumerreports.org/wp-">https://advocacy.consumerreports.org/wp-</a>

content/uploads/2019/10/CR WhatTheFeeReport 6F sm-1.pdf.

- <sup>282</sup> Consumer Financial Protection Bureau, "CFPB Research Shows Banks' Deep Dependence on Overdraft Fees," December 1, 2021,
- $\frac{https://www.consumerfinance.gov/about-us/newsroom/cfpb-research-shows-banks-deep-dependence-on-overdraft-fees/.}{}$

- <sup>283</sup> Consumer Financial Protection Bureau, "CFPB Finds Credit Card Companies Charged \$12 Billion in Late Fee Penalties in 2020," March 29, 2022, <a href="https://www.consumerfinance.gov/about-us/newsroom/cfpb-finds-credit-card-companies-charged-12-billion-in-late-fee-penalties-in-2020/">https://www.consumerfinance.gov/about-us/newsroom/cfpb-finds-credit-card-companies-charged-12-billion-in-late-fee-penalties-in-2020/</a>.
- <sup>284</sup> Consumer Financial Protection Bureau, "Credit Card Late Fees," March 2022, <a href="https://files.consumerfinance.gov/f/documents/cfpb">https://files.consumerfinance.gov/f/documents/cfpb</a> credit-card-late-fees report 2022-03.pdf.
- <sup>285</sup> Stephen Arves and Meghan Greene, "Amid Resurgence of Interest in Overdraft, New Data Reveal How Inequitable It Can Be," Financial Health Network, September 3, 2021, <a href="https://finhealthnetwork.org/amid-resurgence-of-interest-in-overdraft-new-data-reveal-how-inequitable-it-can-be/">https://finhealthnetwork.org/amid-resurgence-of-interest-in-overdraft-new-data-reveal-how-inequitable-it-can-be/</a>.
- <sup>286</sup>Alexander Rasch, Miriam Thöne, and Tobias Wenzel, "Drip pricing and its regulation: Experimental evidence," *Journal of Economic Behavior & Organization*, Vol. 176, 353-370, August 2020, <a href="https://doi.org/10.1016/j.jebo.2020.04.007">https://doi.org/10.1016/j.jebo.2020.04.007</a>.
- <sup>287</sup> Shelle Santana, Steven K. Dallas, and Vicki G. Morwitz, "Consumer Reactions to Drip Pricing," *Marketing Science*, Vol. 39, No. 1, 188-210, January 15, 2020, <a href="https://doi.org/10.1287/mksc.2019.1207">https://doi.org/10.1287/mksc.2019.1207</a>.
- <sup>288</sup> The Council of Economic Advisers, "How Junk Fees Distort Competition," March 21, 2023, <a href="https://www.whitehouse.gov/cea/written-materials/2023/03/21/how-iunk-fees-distort-competition/">https://www.whitehouse.gov/cea/written-materials/2023/03/21/how-iunk-fees-distort-competition/</a>.
- <sup>289</sup> Glenn Ellison and Sara Fisher Ellison, "Search, Obfuscation, and Price Elasticities on the Internet," *Econometrica*, Vol. 77, No. 2, 437-452, March 5, 2009, <a href="https://doi.org/10.3982/ecta5708">https://doi.org/10.3982/ecta5708</a>.
- <sup>290</sup> Sumit Agarwal, Souphala Chomsisengphet, Neale Mahoney, and Johannes Stroebel, "Regulating Consumer Financial Products: Evidence from Credit Cards," National Bureau of Economic Research, Working Paper 19484, September 2013, https://doi.org/10.3386/w19484.
- <sup>291</sup> Sumit Agarwal, Souphala Chomsisengphet, Neale Mahoney, and Johannes Stroebel, "Regulating Consumer Financial Products: Evidence from Credit Cards," National Bureau of Economic Research, Working Paper 19484, September 2013, https://doi.org/10.3386/w19484.
- <sup>292</sup> Alexander Rasch, Miriam Thöne, and Tobias Wenzel, "Drip pricing and its regulation: Experimental evidence," *Journal of Economic Behavior & Organization*, Vol. 176, 353-370, August 2020, <a href="https://doi.org/10.1016/j.jebo.2020.04.007">https://doi.org/10.1016/j.jebo.2020.04.007</a>.
- <sup>293</sup> Consumer Financial Protection Bureau, "CFPB Issues Guidance to Help Banks Avoid Charging Illegal Junk Fees on Deposit Accounts," October 26, 2022, <a href="https://www.consumerfinance.gov/about-us/newsroom/cfpb-issues-">https://www.consumerfinance.gov/about-us/newsroom/cfpb-issues-</a>

<u>guidance-to-help-banks-avoid-charging-illegal-junk-fees-on-deposit-accounts/.</u>

- <sup>294</sup> Consumer Financial Protection Bureau, "CFPB Proposes Rule to Rein in Excessive Credit Card Late Fees," February 1, 2023, <a href="https://www.consumerfinance.gov/about-us/newsroom/cfpb-proposes-rule-to-rein-in-excessive-credit-card-late-fees/">https://www.consumerfinance.gov/about-us/newsroom/cfpb-proposes-rule-to-rein-in-excessive-credit-card-late-fees/</a>.
- <sup>295</sup> Consumer Financial Protection Bureau, "CFPB Takes Action Against Bank of America for Illegally Charging Junk Fees, Withholding Credit Card Rewards, and Opening Fake Accounts," July 11, 2023, <a href="https://www.consumerfinance.gov/about-us/newsroom/bank-of-america-for-illegally-charging-junk-fees-withholding-credit-card-rewards-opening-fake-accounts/">https://www.consumerfinance.gov/about-us/newsroom/bank-of-america-for-illegally-charging-junk-fees-withholding-credit-card-rewards-opening-fake-accounts/</a>.
- <sup>296</sup> Consumer Financial Protection Bureau, "CFPB Takes Action Against Bank of America for Illegally Charging Junk Fees, Withholding Credit Card Rewards, and Opening Fake Accounts," July 11, 2023, <a href="https://www.consumerfinance.gov/about-us/newsroom/bank-of-america-for-illegally-charging-junk-fees-withholding-credit-card-rewards-opening-fake-accounts/">https://www.consumerfinance.gov/about-us/newsroom/bank-of-america-for-illegally-charging-junk-fees-withholding-credit-card-rewards-opening-fake-accounts/</a>.
- <sup>297</sup> Office of the Comptroller of the Currency, "OCC Assesses \$60 Million Civil Money Penalty Against Bank of America Related to Bank's Overdraft Program," July 11,2023, <a href="https://www.occ.treas.gov/news-issuances/news-releases/2023/nr-occ-2023-71.html">https://www.occ.treas.gov/news-issuances/news-releases/2023/nr-occ-2023-71.html</a>.
- <sup>298</sup> Federal Communications Commission, "Broadband Consumer Labels," March 23, 2023, <a href="https://www.fcc.gov/broadbandlabels">https://www.fcc.gov/broadbandlabels</a>.
- <sup>299</sup> Federal Trade Commission, "Unfair or Deceptive Fees Trade Regulation Rule Commission Matter No. R207011, a Proposed Rule by the Federal Trade Commission," November 8, 2022,
- $\frac{https://www.federalregister.gov/documents/2022/11/08/2022-24326/unfair-ordeceptive-fees-trade-regulation-rule-commission-matter-no-r207011.$
- <sup>300</sup> Federal Trade Commission, "FTC Sends More than \$3.3 Million to Consumers Harmed by Passport Auto's Illegal Junk Fees and Discriminatory Practices," May 16, 2023, <a href="https://www.ftc.gov/news-events/news/press-releases/2023/05/ftc-sends-more-33-million-consumers-harmed-passport-autos-illegal-junk-fees-discriminatory-practices">https://www.ftc.gov/news-events/news/press-releases/2023/05/ftc-sends-more-33-million-consumers-harmed-passport-autos-illegal-junk-fees-discriminatory-practices</a>.
- <sup>301</sup> Mae Anderson, "Without 'right to repair,' businesses lose time and money," *The Public Broadcasting Service*, August 10, 2021, <a href="https://www.pbs.org/newshour/economy/without-right-to-repair-businesses-lose-time-and-money">https://www.pbs.org/newshour/economy/without-right-to-repair-businesses-lose-time-and-money</a>.
- <sup>302</sup> Ray Magliozzi, "Opinion: 'Car Talk' host: Independent auto shops deserve the right to repair your car," *The Washington Post*, September 28, 2022,

https://www.washingtonpost.com/opinions/2022/09/28/car-talk-ray-magliozzi-right-to-repair-law.

- <sup>303</sup> Marcia Brown, "Rightto repair notches a big win in Colorado," *Politico*, April 27, 2023, <a href="https://www.politico.com/newsletters/the-long-game/2023/04/27/right-to-repair-notches-a-big-win-in-colorado-00094022">https://www.politico.com/newsletters/the-long-game/2023/04/27/right-to-repair-notches-a-big-win-in-colorado-00094022</a>.
- <sup>304</sup> Federal Trade Commission, "Nixing the Fix: An FTC Report to Congress on Repair Restrictions," May 2021,
- https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing the fix report final 5521 630pm-508 002.pdf.
- <sup>305</sup> Federal Trade Commission, "Nixing the Fix: An FTC Report to Congress on Repair Restrictions," May 2021,
- https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing the fix report final 5521 630pm-508 002.pdf.
- <sup>306</sup> Federal Trade Commission, "Nixing the Fix: An FTC Report to Congress on Repair Restrictions," May 2021,
- https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing the fix report final 5521 630pm-508 002.pdf.
- <sup>307</sup> Federal Trade Commission, "Nixing the Fix: An FTC Report to Congress on Repair Restrictions," May 2021,
- https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing the fix report final 5521 630pm-508 002.pdf.
- <sup>308</sup> Federal Trade Commission, "FTC Testifies Before California State Senate on Right to Repair," April 11, 2023, <a href="https://www.ftc.gov/news-events/news/press-releases/2023/04/ftc-testifies-california-state-senate-right-repair">https://www.ftc.gov/news-events/news/press-releases/2023/04/ftc-testifies-california-state-senate-right-repair</a>.
- <sup>309</sup> Jason Unrau, "How will the Right to Repair bill affect car dealerships?" *CBTNews*, February 7, 2022, <a href="https://www.cbtnews.com/how-will-the-right-to-repair-bill-affect-car-dealerships/">https://www.cbtnews.com/how-will-the-right-to-repair-bill-affect-car-dealerships/</a>.
- 310 Ray Magliozzi, "Opinion: 'Car Talk' host: Independent auto shops deserve the right to repair your car," *The Washington Post*, September 28, 2022, <a href="https://www.washingtonpost.com/opinions/2022/09/28/car-talk-ray-magliozzi-right-to-repair-law.">https://www.washingtonpost.com/opinions/2022/09/28/car-talk-ray-magliozzi-right-to-repair-law.</a>
- <sup>311</sup> Federal Trade Commission, "Nixing the Fix: An FTC Report to Congress on Repair Restrictions," May 2021,
- https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-

congress-repair-restrictions/nixing the fix report final 5521 630pm-508 002.pdf.

- <sup>312</sup> Jesse Bedayn, "Colorado becomes 1st to pass 'right to repair' for farmers," *Associated Press*, April 25, 2023, <a href="https://apnews.com/article/colorado-right-to-repair-farming-equipment-1da00ea957fd1057bf522cb4725e62d4">https://apnews.com/article/colorado-right-to-repair-farming-equipment-1da00ea957fd1057bf522cb4725e62d4</a>.
- <sup>313</sup> Kaiser Health News, "Despite a First-Ever 'Right-to-Repair' Law, There's No Easy Fix for Wheelchair Users," *U.S. News and World Report*, May 31, 2022, <a href="https://www.usnews.com/news/health-news/articles/2022-05-31/despite-a-first-ever-right-to-repair-law-theres-no-easy-fix-for-wheelchair-users">https://www.usnews.com/news/health-news/articles/2022-05-31/despite-a-first-ever-right-to-repair-law-theres-no-easy-fix-for-wheelchair-users</a>.
- <sup>314</sup> Shuhan He, Debbie Lai, and Jarone Leeb, "The medical right to repair: the right to save lives," *Lancet*, Vol. 397, No. 10281, 1260-1261, April 3, 2021, <a href="https://doi.org/10.1016/S0140-6736(21)00445-1">https://doi.org/10.1016/S0140-6736(21)00445-1</a>.
- <sup>315</sup> Nathan Procter and Kevin O'Reilly, "Hospital Repair Restrictions," U.S. PIRG Education Fund, July 8, 2020,

 $\underline{https://pirg.org/edfund/resources/hospital-repair-restrictions/}.$ 

- 316 The White House, "Fact Sheet: Executive Order on Promoting Competition in the American Economy," July 9, 2021, <a href="https://www.whitehouse.gov/briefing-room/statements-">https://www.whitehouse.gov/briefing-room/statements-</a>
- $\underline{releases/2021/07/09/fact-sheet-executive-order-on-promoting-competition-in-the-american-economy/.}$
- <sup>317</sup> Federal Trade Commission, "FTC to Ramp Up Law Enforcement Against Illegal Repair Restrictions," July 21, 2021, <a href="https://www.ftc.gov/news-events/news/press-releases/2021/07/ftc-ramp-law-enforcement-against-illegal-repair-restrictions">https://www.ftc.gov/news-events/news/press-releases/2021/07/ftc-ramp-law-enforcement-against-illegal-repair-restrictions</a>.
- <sup>318</sup> Federal Trade Commission, "FTC announces three right-to-repair cases: Do your warranties comply with the law?" July 7, 2022, <a href="https://www.ftc.gov/business-guidance/blog/2022/07/ftc-announces-three-right-repair-cases-do-your-warranties-comply-law.">https://www.ftc.gov/business-guidance/blog/2022/07/ftc-announces-three-right-repair-cases-do-your-warranties-comply-law.</a>
- <sup>319</sup> The White House, "White House Competition Council," n.d., https://www.whitehouse.gov/competition/.
- <sup>320</sup> The White House, "Executive Order on Promoting Competition in the American Economy," July 09, 2021, <a href="https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/">https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/</a>.
- <sup>321</sup> CFA Institute, "Private Equity Investments," 2023, https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/private-equity-investments.

<sup>322</sup> George W. Fenn, Nellie Liang, and Stephen Prowse, "The economics of the private equity market," *Federal Reserve Bulletin*, 1996, <a href="https://heinonline.org/HOL/P?h=hein.journals/fedred82&i=32">https://heinonline.org/HOL/P?h=hein.journals/fedred82&i=32</a>.

- <sup>323</sup> George W. Fenn, Nellie Liang, and Stephen Prowse, "The economics of the private equity market," *Federal Reserve Bulletin*, 1996, https://heinonline.org/HOL/P?h=hein.journals/fedred82&i=32.
- <sup>324</sup> CFA Institute, "Private Equity Investments," 2023, https://www.cfainstitute.org/en/membership/professionaldevelopment/refresher-readings/private-equity-investments.
- <sup>325</sup> Evan Gunter, Ruth Yang, and Leon Sinclair, "Private Markets: Still Waters Run Deep," *S&P Global*, April 18, 2023, https://www.spglobal.com/en/research-insights/featured/special-editorial/look-

https://www.spglobal.com/en/research-insights/featured/special-editorial/look-forward/private-markets-still-waters-run-deep.

- <sup>326</sup> Lauren Coleman-Lochner, "Private Equity Owns 30% of For-Profit Hospitals, Tracker Says," *Bloomberg*, April 19, 2023, <a href="https://www.bloomberg.com/news/articles/2023-04-19/private-equity-is-buying-struggling-hospitals-is-that-part-of-the-problem#xj4y7vzkg">https://www.bloomberg.com/news/articles/2023-04-19/private-equity-is-buying-struggling-hospitals-is-that-part-of-the-problem#xj4y7vzkg</a>.
- <sup>327</sup> Carsten Bienz, Karin S. Thorburn, and Uwe Walz, "Fund ownership, wealth, and risk-taking: Evidence on private equity managers," *Journal of Financial Intermediation*, Vol. 54, April 2023,

https://www.sciencedirect.com/science/article/pii/S1042957323000086.

- <sup>328</sup> David Snow, "Private Equity: A Brief Overview," Private Equity International, <a href="https://www.law.du.edu/documents/registrar/adv-assign/Yoost-PrivateEquity%20Seminar-PEI%20Media's%20Private%20Equity%20-%20A%20Brief%20Overview\_318.pdf">https://www.law.du.edu/documents/registrar/adv-assign/Yoost-PrivateEquity%20Seminar-PEI%20Media's%20Private%20Equity%20-%20A%20Brief%20Overview\_318.pdf</a>.
- <sup>329</sup> Carsten Bienz, Karin S. Thorburn, and Uwe Walz, "Fund ownership, wealth, and risk-taking: Evidence on private equity managers," *Journal of Financial Intermediation*, Vol. 54, April 2023,

https://www.sciencedirect.com/science/article/pii/S1042957323000086.

- <sup>330</sup> Steven N. Kaplan and Per Strömberg, "Leveraged buyouts and private equity," *Journal of Economic Perspectives*, Vol. 23, No. 1, 121-146, February 2009, https://www.aeaweb.org/articles?id=10.1257/jep.23.1.121.
- <sup>331</sup> Eileen Appelbaum and Rosemary Batt, "How private equity firms are designed to earn big while risking little of their own," London School of Economics, January 23, 2017,
- https://blogs.lse.ac.uk/businessreview/2017/01/23/how-private-equity-firms-are-designed-to-earn-big-while-risking-little-of-their-own/.
- <sup>332</sup> Eileen Appelbaum and Rosemary Batt, "How private equity firms are designed to earn big while risking little of their own," London School of Economics, January 23, 2017,

https://blogs.lse.ac.uk/businessreview/2017/01/23/how-private-equity-firms-are-designed-to-earn-big-while-risking-little-of-their-own/.

- <sup>333</sup> Sajith Matthews and Renato Roxas, "Private equity and its effect on patients: a window into the future," International journal of health economics and management, May 23, 2022, https://doi.org/10.1007/s10754-022-09331-y.
- <sup>334</sup> Cornell University ILR Worker Institute "Recordings: Workers Challenging Private Equity to Create Good Jobs," October 29, 2021, <a href="https://www.ilr.cornell.edu/worker-institute/blog/events/recordings-workers-challenging-private-equity-create-good-jobs">https://www.ilr.cornell.edu/worker-institute/blog/events/recordings-workers-challenging-private-equity-create-good-jobs</a>.
- <sup>335</sup> Steven J. Davis, John Haltiwanger, Kyle Handley, Ben Lipsius, Josh Lerner, and Javier Miranda, "The Economic Effects of Private Equity Buyouts," SSRN, July 8, 2021, <a href="https://ssrn.com/abstract=3465723">https://ssrn.com/abstract=3465723</a>.
- <sup>336</sup> Dan Primack, "Private equity takeovers result in significant job losses," *Axios*, October 7, 2019, <a href="https://www.axios.com/2019/10/07/private-equity-employment-job-losses">https://www.axios.com/2019/10/07/private-equity-employment-job-losses</a>.
- 337 Lester Picker, "Private Equity and Employment," National Bureau of Economic Research, The Digest, No. 1, January 2012,

https://www.nber.org/digest/jan12/private-equity-and-employment.

- <sup>338</sup> Shai Bernstein and Albert Sheen, "The Operational Consequences of Private Equity Buyouts: Evidence from the Restaurant Industry," The Review of Financial Studies, September 2016, http://www.jstor.org/stable/44014930.
- <sup>339</sup> Tong Liu, "Bargaining with Private Equity: Implications for Hospital Prices and Patient Welfare," Northeastern University, November 1, 2022, <a href="https://damore-mckim.northeastern.edu/wp-">https://damore-mckim.northeastern.edu/wp-</a>

content/uploads/2022/05/6 PEHealthcare v25.pdf.

- <sup>340</sup> Erin C. Fuse Brown, Loren Adler, Erin Duffy, Paul B. Ginsburg, Mark Hall, and Samuel Valdez, "Private equity investment as a divining rod for market failure: Policy responses to harmful physician practice acquisitions," Brookings Institution, October 5, 2021,
- https://www.brookings.edu/essay/private-equity-investment-as-a-divining-rod-for-market-failure-policy-responses-to-harmful-physician-practice-acquisitions/.
- <sup>341</sup> Sajith Matthews and Renato Roxas, "Private equity and its effect on patients: a window into the future," International journal of health economics and management, May 23, 2022, <a href="https://doi.org/10.1007/s10754-022-09331-y">https://doi.org/10.1007/s10754-022-09331-y</a>.
- <sup>342</sup> Sajith Matthews and Renato Roxas, "Private equity and its effect on patients: a window into the future," International journal of health economics and management, May 23, 2022, https://doi.org/10.1007/s10754-022-09331-y.
- <sup>343</sup> Joseph D. Bruch, Suhas Gondi, and Zirui Song, "Changes in Hospital Income, Use, and Quality Associated With Private Equity Acquisition," *JAMA*

*Internal Medicine*, Vol. 180, No. 11, 1428-1435, August 24, 2020, https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2769549.

- <sup>344</sup> Robert Tyler Braun, Hye-Young Jung, Lawrence P. Casalino, MD, Zachary Myslinski, and Mark Aaron Unruh, "Association of Private Equity Investment in US Nursing Homes With the Quality and Cost of Care for Long-Stay Residents," *JAMA Health Forum*, Vol. 2, No. 11, November 19, 2021, <a href="https://jamanetwork.com/journals/jama-health-forum/fullarticle/2786442">https://jamanetwork.com/journals/jama-health-forum/fullarticle/2786442</a>.
- <sup>345</sup> Atul Gupta, Sabrina T. Howell, Constantine Yannelis, and Abhinav Gupta, "Does private equity investment in healthcare benefit patients? Evidence from nursing homes," National Bureau of Economic Research, Working Paper 28474, February 2021, <a href="https://www.nber.org/papers/w28474">https://www.nber.org/papers/w28474</a>.
- <sup>346</sup> Joseph Bruch, Dan Zeltzer, and Zirui Song, "Characteristics of Private Equity-Owned Hospitals in 2018," *Annals of Internal Medicine*, Vol. 174, No. 2, 277-279, February 2021,

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8299539/.

- <sup>347</sup> Private Equity Stakeholder Project, "PESP Private Equity Hospital Tracker," 2023, https://pestakeholder.org/private-equity-hospital-tracker/.
- <sup>348</sup> A.L. Westerling, H.G. Hidalgo, D.R. Cayan, and T.W. Swetnam, "U.S. Forest Wildfire Activity," *Science*, Vol. 313, No. 5789, 940-943, August 18, 2006, <a href="https://www.science.org/doi/10.1126/science.1128834">https://www.science.org/doi/10.1126/science.1128834</a>.
- <sup>349</sup> A.L. Westerling, H.G. Hidalgo, D.R. Cayan, and T.W. Swetnam, "U.S. Forest Wildfire Activity," *Science*, Vol. 313, No. 5789, 940-943, August 18, 2006, https://www.science.org/doi/10.1126/science.1128834.
- <sup>350</sup> Anthony LeRoy Westerling, "Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring," *Philosophical Transactions of the Royal Society B: Biological Sciences*, Vol. 371, No. 1696, 315-345, June 5, 2016, https://doi.org/10.1098/rstb.2015.0178.
- <sup>351</sup> Marlene Lenthang and Phil Hesel, "Air quality: New York City has the worst air in the world as smoke from Canadian wildfires rolls in," *NBC News*, June 8, 2023, <a href="https://www.nbcnews.com/news/us-news/nyc-officials-announce-advisories-5-boroughs-alarming-air-quality-conc-rcna88090">https://www.nbcnews.com/news/us-news/nyc-officials-announce-advisories-5-boroughs-alarming-air-quality-conc-rcna88090</a>.
- <sup>352</sup> Christian Crowley, Ann Miller, Robert Richardson, and Jacob Malcom, "Increasing Damages from wildfires warrant investment in wildland fire management," U.S. Department of Interior, May 25, 2023, <a href="https://www.doi.gov/sites/doi.gov/files/ppa-report-wildland-fire-econ-review-2023-05-25.pdf">https://www.doi.gov/sites/doi.gov/files/ppa-report-wildland-fire-econ-review-2023-05-25.pdf</a>.
- <sup>353</sup> Anthony LeRoy Westerling, "Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring," *Philosophical*

*Transactions of the Royal Society B: Biological Sciences*, Vol. 371, No. 1696, June 5, 2016, <a href="https://doi.org/10.1098/rstb.2015.0178">https://doi.org/10.1098/rstb.2015.0178</a>.

- <sup>354</sup> Daniel J. Jacob, and Darrell A. Winner, "Effect of climate change on air Quality," *Atmospheric Environment*, Vol. 43, No. 1, 51-63, January 2009, <a href="https://doi.org/10.1016/j.atmosenv.2008.09.051">https://doi.org/10.1016/j.atmosenv.2008.09.051</a>.
- 355 Rosana Aguilera, Thomas Corringham, Alexander Gershunov, and Tarik Benmarhnia, "Wildfire smoke impacts respiratory health more than fine particles from other sources: observational evidence from Southern California," *Nature Communications*, Vol. 12, No. 1493, March 5, 2021, https://doi.org/10.1038/s41467-021-21708-0.
- <sup>356</sup> B. Ford, M. Val Martin, S.E Zelasky, E.V. Fischer, S.C. Anenberg, C.L. Heald, and J.R. Pierce, "Future Fire Impacts on Smoke Concentrations, Visibility, and Health in the Contiguous United States," *GeoHealth*, Vol. 2, No. 8, 229-247, July 6, 2018, <a href="https://doi.org/10.1029/2018gh000144">https://doi.org/10.1029/2018gh000144</a>.
- <sup>357</sup> Sam Heft-Neal, Anne Driscoll, Wei Yang, Gary Shaw, Marshall Burke, "Associations between wildfire smoke exposure during pregnancy and risk of preterm birth in California," *Environmental Research*, Vol. 203, No. 111872, January, 2022, https://doi.org/10.1016/j.envres.2021.111872.
- <sup>358</sup> Colleen E. Reid, Michael Brauer, Fay H. Johnston, Michael Jerrett, John R. Balmes, Catherine T. Elliott, "Critical Review of Health Impacts of Wildfire Smoke Exposure," *Environmental Health Perspectives*, Vol. 124 No. 9, September 2016, <a href="https://doi.org/10.1289/ehp.1409277">https://doi.org/10.1289/ehp.1409277</a>.
- <sup>359</sup> Jia C. Liu, Gavin Pereira, Sarah A. Uhl, Mercedes A. Bravo, Michelle L. Bell, "A systematic review of the physical health impacts from non-occupational exposure to wildfire smoke," *Environmental Research*, Vol. 136, 120-132, January 2015, <a href="https://doi.org/10.1016/j.envres.2014.10.015">https://doi.org/10.1016/j.envres.2014.10.015</a>.
- <sup>360</sup> Hao Chen, James M. Samet, Philip A. Bromberg, and Haiyan Tong, "Cardiovascular health impacts of wildfire smoke exposure," *Particle and Fibre Toxicology*, Vol. 18, No. 2, January 7, 2021, <a href="https://doi.org/10.1186/s12989-020-00394-8">https://doi.org/10.1186/s12989-020-00394-8</a>.
- <sup>361</sup> Katelyn O'Dell, Kelsey Bilsback, Bonne Ford, Sheena E. Martenies, Sheryl Magzamen, Emily V. Fischer, and Jeffery R. Pierce, "Estimated Mortality and Morbidity Attributable to Smoke Plumes in the United States: Not Just a Western US Problem," *GeoHealth*, Vol. 5, No. 9, August 21, 2021, <a href="https://doi.org/10.1029/2021gh000457">https://doi.org/10.1029/2021gh000457</a>.
- <sup>362</sup> Katelyn O'Dell, Kelsey Bilsback, Bonne Ford, Sheena E. Martenies, Sheryl Magzamen, Emily V. Fischer, and Jeffery R. Pierce, "Estimated Mortality and Morbidity Attributable to Smoke Plumes in the United States:

Not Just a Western US Problem," *GeoHealth*, Vol. 5, No. 9, August 21, 2021, https://doi.org/10.1029/2021gh000457.

<sup>363</sup> All Things Considered, NPR, "California Fires Result In Job And Income Loss For Seasonal Workers," October 19, 2017, https://www.npr.org/2017/10/19/558847348/california-fires-result-in-job-and-

https://www.npr.org/2017/10/19/558847348/california-fires-result-in-job-and-income-loss-for-seasonal-workers.

<sup>364</sup> Mark Borgschulte, David Molitor, and Eric Yongchen Zou, "Air Pollution and the Labor Market: Evidence from Wildfire Smoke," *The Review of Economics and Statistics*, 1-46, September 27, 2022, https://doi.org/10.1162/rest a 01243.

365 The California FAIR Plan, "About FAIR Plan," 2023,

https://www.cfpnet.com/about-fair-plan/.

<sup>366</sup> U.S. Environmental Protection Agency, "Wildfires: How Do They Affect Our Water Supplies?," August 13, 2019,

https://www.epa.gov/sciencematters/wildfires-how-do-they-affect-our-water-supplies.

<sup>367</sup> ENews, PoliticoPro, "Re: Docket ID No. EPA-HQ-OAR-2015-0072; Review of the National Ambient Air Quality Standards for Particulate Matter", March 28, 2023,

 $\underline{Https://Subscriber.politicopro.com/Eenews/F/Eenews/?Id=00000188-B56b-D031-A7fc-B5ef36850000.}$ 

<sup>368</sup> U.S. Senator Martin Heinrich, "Heinrich Announces Transmission Permitting Reform Legislation," June 1, 2023,

https://www.heinrich.senate.gov/newsroom/press-releases/heinrichannounces-transmission-permitting-reform-legislation.

- <sup>369</sup> Joint Economic Committee, "The EPA's New Standards for Fossil Fuel Power Plants Will Improve Public Health While Tackling the Climate Crisis," June 7, 2023, <a href="https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?id=4153A673-9856-4504-8EC5-46AE46D41C3A">https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?id=4153A673-9856-4504-8EC5-46AE46D41C3A</a>.
- <sup>370</sup> U.S. Senator Martin Heinrich, "As Fire Season Begins, Heinrich, Luján Lead National Push to Increase Wildland Firefighter Recruitment and Retention," June 7, 2023, <a href="https://www.heinrich.senate.gov/newsroom/press-releases/as-fire-season-begins-heinrich-lujan-lead-national-push-to-increase-wildland-firefighter-recruitment-and-retention">https://www.heinrich.senate.gov/newsroom/press-releases/as-fire-season-begins-heinrich-lujan-lead-national-push-to-increase-wildland-firefighter-recruitment-and-retention</a>.
- <sup>371</sup> Joint Economic Committee, "The EPA's New Standards for Fossil Fuel Power Plants Will Improve Public Health While Tackling the Climate Crisis," June 7, 2023, <a href="https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?id=4153A673-9856-4504-8EC5-46AE46D41C3A">https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?id=4153A673-9856-4504-8EC5-46AE46D41C3A</a>.
- <sup>372</sup> U.S. Environmental Protection Agency, "EPA Proposes New Carbon Pollution Standards for Fossil Fuel-Fired Power Plants to Tackle the Climate

Crisis and Protect Public Health," May 10, 2023, <a href="https://www.epa.gov/newsreleases/epa-proposes-new-carbon-pollution-standards-fossil-fuel-fired-power-plants-tackle">https://www.epa.gov/newsreleases/epa-proposes-new-carbon-pollution-standards-fossil-fuel-fired-power-plants-tackle</a>.

- <sup>373</sup> Karn Vohra, Alina Vodonos, Joel Schwartz, Eloise A. Marais, Melissa P. Sulprizio, Loretta J. Mickley, "Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem," *Environmental Research*, Vol. 195, No. 110754, April 2021, https://doi.org/10.1016/j.envres.2021.110754.
- <sup>374</sup> U.S. Sustainable Investment Forum, "US SIF "Trends Report" Documents Sustainable Investment Assets Of \$8.4 Trillion," December 13, 2022, <a href="https://www.ussif.org/blog\_home.asp?Display=194">https://www.ussif.org/blog\_home.asp?Display=194</a>.
- <sup>375</sup> CDP, "Global Climate Analysis 2018," 2019, https://www.cdp.net/en/research/global-reports/global-climate-change-report-2018.
- <sup>376</sup> Greogor Semieniuk, Philip B. Holden, Jean-Francois Mercure, Pablo Salas, Hector Pollitt, Katharine Jobson, Pim Vercoulen, Unnada Chewpreecha, Neil R. Edwards, and Jorge E. Viñuales, "Stranded fossil-fuel assets translate to major losses for investors in a dvanced economies," *Nature Climate Change*, Vol. 12, 532–538, May 26, 2022, <a href="https://doi.org/10.1038/s41558-022-01356-v">https://doi.org/10.1038/s41558-022-01356-v</a>.
- <sup>377</sup> Greogor Semieniuk, Philip B. Holden, Jean-Francois Mercure, Pablo Salas, Hector Pollitt, Katharine Jobson, Pim Vercoulen, Unnada Chewpreecha, Neil R. Edwards, and Jorge E. Viñuales, "Stranded fossil-fuel assets translate to major losses for investors in advanced economies," *Nature Climate Change*, Vol. 12, 532–538, May 26, 2022, <a href="https://doi.org/10.1038/s41558-022-01356-v">https://doi.org/10.1038/s41558-022-01356-v</a>.
- <sup>378</sup> Eleanor Krause and Richard V. Reeves, R. V., "Hurricanes hit the poor the hardest," Brookings, September 16, 2018, <a href="https://www.brookings.edu/blog/social-mobility-memos/2017/09/18/hurricanes-hit-the-poor-the-hardest/">https://www.brookings.edu/blog/social-mobility-memos/2017/09/18/hurricanes-hit-the-poor-the-hardest/</a>.
- <sup>379</sup> Intergovernmental Panel on Climate Change, "Climate Change 2022: Impacts, Adaptation and Vulnerability," February 27, 2022, <a href="https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC">https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC</a> AR6 WGII SummaryForPolicymakers.pdf.
- <sup>380</sup> Yanjun Penny Liao and Anne McDarris, "Climate Financial Risk 101," Resources for the Future, <a href="https://www.rff.org/publications/explainers/climate-financial-risks-101/">https://www.rff.org/publications/explainers/climate-financial-risks-101/</a>.
- <sup>381</sup> Yanjun Penny Liao, Carolyn Kousky, "The Fiscal Impacts of Wildfires on California Municipalities," *Journal of the Association of Environmental and*

Resource Economists, Vol. 9, No. 3, May 2022, https://doi.org/10.1086/717492.

- <sup>382</sup> Yanjun Penny Liao and Anne McDarris, "Climate Financial Risk 101," Resources for the Future, <a href="https://www.rff.org/publications/explainers/climate-financial-risks-101/">https://www.rff.org/publications/explainers/climate-financial-risks-101/</a>.
- <sup>383</sup> Madison Condon, "Climate Services: The Business of Physical Risk," Social Science Research Network, March 22, 2023,

https://doi.org/10.2139/ssrn.4396826.

- <sup>384</sup> Christopher Flavelle, Denise Lu, Veronica Penney, Nadja Popvich, and John Schwartz, "New Data Reveals Hidden Flood Risk Across America," *The New York Times*, June 29, 2020,
- $\underline{https://www.nytimes.com/interactive/2020/06/29/climate/hidden-flood-risk-maps.html}.$
- <sup>385</sup> Bureau of Economic Analysis, "Outdoor Recreation Satellite Account, U.S. and States, 2021," November 9, 2022, <a href="https://www.bea.gov/data/specialtopics/outdoor-recreation">https://www.bea.gov/data/specialtopics/outdoor-recreation</a>.
- <sup>386</sup> Joint Economic Committee, "Earth Day 2023: How the Recovering America's Wildlife Act Benefits Our Planet and Our Economy," April 22, 2023, <a href="https://www.jec.senate.gov/public/index.cfm/democrats/2023/4/earth-day-2023-how-the-recovering-america-s-wildlife-act-benefits-our-planet-and-our-economy">https://www.jec.senate.gov/public/index.cfm/democrats/2023/4/earth-day-2023-how-the-recovering-america-s-wildlife-act-benefits-our-planet-and-our-economy</a>.
- <sup>387</sup> Ray Rasker, "West Is Best: Protected Lands Promote Jobs and Higher Incomes," Headwaters Economics, November 2012, https://headwaterseconomics.org/economic-development/trends-

performance/west-is-best-value-of-public-lands/.

<sup>388</sup> Peter Nelson, "Demographic Dynamics in Public Lands Counties, 1990-2016," Headwaters Economics, May 2019,

https://headwaterseconomics.org/public-lands/papl-nelson/.

<sup>389</sup> Ray Rasker, "West Is Best: Protected Lands Promote Jobs and Higher Incomes," Headwaters Economics, November 2012,

https://headwaterseconomics.org/economic-development/trends-performance/west-is-best-value-of-public-lands/.

<sup>390</sup> Ray Rasker, "West Is Best: Protected Lands Promote Jobs and Higher Incomes," Headwaters Economics, November 2012, <a href="https://headwaterseconomics.org/economic-development/trends-">https://headwaterseconomics.org/economic-development/trends-</a>

performance/west-is-best-value-of-public-lands/.

<sup>391</sup> Megan Lawson, "Federal Lands in the West: Liability or Asset?," Headwaters Economics, February 21, 2017,

https://headwaterseconomics.org/public-lands/federal-lands-performance/.

- <sup>392</sup> Joint Economic Committee, "Earth Day 2023: How the Recovering America's Wildlife Act Benefits Our Planet and Our Economy," April 22, 2023, <a href="https://www.jec.senate.gov/public/index.cfm/democrats/2023/4/earth-day-2023-how-the-recovering-america-s-wildlife-act-benefits-our-planet-and-our-economy">https://www.jec.senate.gov/public/index.cfm/democrats/2023/4/earth-day-2023-how-the-recovering-america-s-wildlife-act-benefits-our-planet-and-our-economy</a>.
- <sup>393</sup> Haggerty, M., "Diversifying revenue on New Mexico state trust lands," Headwaters Economics, September 14, 2021,

https://headwaterseconomics.org/tax-policy/new-mexico-state-land/.

- <sup>394</sup> Trust for Public Land, "Economic & Health Benefits," 2023, <a href="https://www.tpl.org/resource/economic-health-benefits">https://www.tpl.org/resource/economic-health-benefits</a>.
- <sup>395</sup> U.S. Department of Energy, "United States Energy & Employment Report 2023," <a href="https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20EXEC%20SUMM-v2.pdf">https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20EXEC%20SUMM-v2.pdf</a>.
- <sup>396</sup> U.S. Department of Energy, "United States Energy & Employment Report 2023," <a href="https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20EXEC%20SUMM-v2.pdf">https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20EXEC%20SUMM-v2.pdf</a>.
- <sup>397</sup> Bluegreen Alliance, "9 Million Jobs from Climate Action: The Inflation Reduction Act," <a href="https://www.bluegreenalliance.org/site/9-million-good-jobs-from-climate-action-the-inflation-reduction-act/">https://www.bluegreenalliance.org/site/9-million-good-jobs-from-climate-action-the-inflation-reduction-act/</a>.
- <sup>398</sup> Robert Pollin, Chirag Lala, and Shouvik Chakraborty, "Job Creation Estimates Through Proposed Inflation Reduction Act," Political Economy Research Institute, August 4, 2022,
- https://peri.umass.edu/publication/item/1633-job-creation-estimates-through-proposed-inflation-reduction-act.
- <sup>399</sup> Associated Builders and Constructors, "Construction Work force Shortage Tops Half a Million in 2023, Says ABC," February 9, 2023, <a href="https://www.abc.org/News-Media/News-Releases/entryid/19777/construction-workforce-shortage-tops-half-a-million-in-2023-says-abc.">https://www.abc.org/News-Media/News-Releases/entryid/19777/construction-workforce-shortage-tops-half-a-million-in-2023-says-abc.</a>
- <sup>400</sup> Garo Hovnanian, Ryan Luby, and Shannon Peloquin, "Bridging the labor mismatch in US construction," McKinsey & Company, March 28, 2022, <a href="https://www.mckinsey.com/capabilities/operations/our-insights/bridging-the-labor-mismatch-in-us-construction">https://www.mckinsey.com/capabilities/operations/our-insights/bridging-the-labor-mismatch-in-us-construction</a>.
- <sup>401</sup> Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Electricians, May 15,
- $2023, \underline{https://www.bls.gov/ooh/construction-and-extraction/electricians.htm}.$
- <sup>402</sup> U.S. Department of Energy, Office of Efficiency & Renewable Energy, "New Clean Energy Workforce Training Funding Available," December 7, 2022, <a href="https://www.energy.gov/eere/iedo/articles/new-clean-energy-workforce-training-funding-available">https://www.energy.gov/eere/iedo/articles/new-clean-energy-workforce-training-funding-available</a>.

- <sup>403</sup> ApprenticeshipUSA, "Inflation Reduction Act Apprenticeships Resources," <a href="https://www.apprenticeship.gov/inflation-reduction-act-apprenticeship-resources">https://www.apprenticeship.gov/inflation-reduction-act-apprenticeship-resources</a>.
- <sup>404</sup> Ryan Cooper, "Why geothermal energy should be Biden's easy answer to the fracking question," *The Week*, October 22, 2020,
- $\underline{https://theweek.com/articles/945019/why-geothermal-energy-should-bidens-}\underline{easy-answer-fracking-question}.$
- <sup>405</sup> David Biello, "Fracking Could Help Geothermal Become a Power Player," *Scientific American*, July 29, 2013,
- https://www.scientificamerican.com/article/fracking-for-renewable-powergeothermal/.
- <sup>406</sup> Trent Jacobs, "Canadian Operator Works To Transform an Oil Field Into a Hydrogen Factory," *Journal of Petroleum Technology*, March 1, 2021, <a href="https://jpt.spe.org/canadian-operator-works-to-transform-an-oil-field-into-a-hydrogen-factory">https://jpt.spe.org/canadian-operator-works-to-transform-an-oil-field-into-a-hydrogen-factory</a>.
- <sup>407</sup> Chris, Baraniuk, "'Gold Hydrogen' Is an Untapped Resource in Depleted Oil Wells," *Wired*, November 24, 2022, <a href="https://www.wired.com/story/gold-hydrogen/">https://www.wired.com/story/gold-hydrogen/</a>.
- <sup>408</sup> E. Mark Curtis, "Green Energy Jobs in the US: What Are They, and Where Are They?" National Bureau of Economic Research, Working Paper 30332, <a href="https://www.nber.org/system/files/working-papers/w30332/w30332.pdf">https://www.nber.org/system/files/working-papers/w30332/w30332.pdf</a>.
- <sup>409</sup> Interagency Working Group on Coal & Power Plant Communities & Economic Revitalization, "Tax Credits,"
- https://energycommunities.gov/funding-opportunities/tax-credits/.
- $^{410}$  Bureau of Labor Statistics, "May 2022 National Occupational Employment and Wage Estimates," April 25, 2023,
- https://www.bls.gov/oes/current/oes\_nat.htm#00-0000.
- <sup>411</sup> E. Mark Curtis, "Green Energy Jobs in the US: What Are They, and Where Are They?" National Bureau of Economic Research, Working Paper 30332, <a href="https://www.nber.org/system/files/working\_papers/w30332/w30332.pdf">https://www.nber.org/system/files/working\_papers/w30332/w30332.pdf</a>.
- <sup>412</sup> Climate Jobs National Research Center, "Our Plan: Labor Leading on Climate," https://www.cjnrc.org/our-plan-labor-leading-on-climate/.
- <sup>413</sup> Bluegreen Alliance, "Good Jobs" <a href="https://www.bluegreenalliance.org/work/clean-jobs/">https://www.bluegreenalliance.org/work/clean-jobs/</a>.
- <sup>414</sup> U.S. Department of Energy, "United States Energy & Employment Report 2023," 2023, <a href="https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20EXEC%20SUMM-v2.pdf">https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20EXEC%20SUMM-v2.pdf</a>.
- <sup>415</sup> United States Department of Energy, "United States Energy & Employment Report 2023," 2023,

## https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20EXEC%20SUMM-v2.pdf.

- <sup>416</sup> Joint Economic Committee calculations using the Health Resources and Services Administration's primary care health professional shortage area data.
- <sup>417</sup> American Hospital Association, "Rural Hospital Closures Threaten Access. Solutions to Preserve Care in Local Communities," September 2022, <a href="https://www.aha.org/system/files/media/file/2022/09/rural-hospital-closures-threaten-access-report.pdf">https://www.aha.org/system/files/media/file/2022/09/rural-hospital-closures-threaten-access-report.pdf</a>.
- <sup>418</sup> Merritt Hawkins, "AMN Healthcare Survey: Physician Appointment Wait Times Up 8% from 2017, Up 24% from 2004," September 12, 2022, <a href="https://www.merritthawkins.com/physician-appointment-wait-times-up-from-2017/#:~:text=AMN% 20Healthcare% 20Survey% 3A% 20Physician% 20Appointment% 20Wait% 20Times% 20Up% 208% 25% 20from% 202017% 2C% 20Up% 2024% 25% 20from% 202004.
- <sup>419</sup> U.S. Government Accountability Office, "Rural Hospital Closures: Affected Residents Had Reduced Access to Health Care Services," January 21, 2021, <a href="https://www.gao.gov/products/gao-21-">https://www.gao.gov/products/gao-21-</a>
- 93#:~:text=When%20rural%20hospitals.drug%20abuse%20treatment.
- <sup>420</sup> Ana B. Ibarra, "Have You Seen a Doctor Lately? Delays Likely Trigger Deaths, Poor Health," CAL Matters, September 27, 2021,
- https://calmatters.org/health/2021/04/doctor-visits-deaths-diseases/.
- <sup>421</sup> Julia C. Prentice and Steven D. Pizer, "Delayed Access to Health Care and Mortality," *Health Services Research*, Vol. 42, No. 2, 644-662, April 2007, <a href="https://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC1955366&blobtype=pdf">https://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC1955366&blobtype=pdf</a>.
- <sup>422</sup> CDC Foundation, "Worker Illness and Injury Costs U.S. Employers \$225.8 Billion Annually," January 28, 2015,
- $\underline{https://www.cdcfoundation.org/pr/2015/worker-illness-and-injury-costs-us-employers-225-billion-annually.}$
- <sup>423</sup> IQVIA, "The National Economic Impact of Physicians," January 2018, <a href="https://www.physicianseconomicimpact.org/pdf/FullStateReports/US-Study.pdf">https://www.physicianseconomicimpact.org/pdf/FullStateReports/US-Study.pdf</a>.
- <sup>424</sup> IHS Markit Ltd., "The Complexities of Physician Supply and Demand: Projections From 2019 to 2034," Association of American Medical Colleges, June 2021, <a href="https://www.aamc.org/media/54681/download?attachment">https://www.aamc.org/media/54681/download?attachment</a>.
- <sup>425</sup> John Cromartie, "Rural Aging Occurs in Different Places for Very Different Reasons," U.S. Department of Agriculture, December 20, 2018, <a href="https://www.usda.gov/media/blog/2018/12/20/rural-aging-occurs-different-places-very-different-reasons">https://www.usda.gov/media/blog/2018/12/20/rural-aging-occurs-different-places-very-different-reasons</a>.

- <sup>426</sup> IHS Markit Ltd., "The Complexities of Physician Supply and Demand: Projections From 2019 to 2034," Association of American Medical Colleges, June 2021, <a href="https://www.aamc.org/media/54681/download?attachment">https://www.aamc.org/media/54681/download?attachment</a>.
- <sup>427</sup> IHS Markit Ltd., "The Complexities of Physician Supply and Demand: Projections From 2019 to 2034," Association of American Medical Colleges, June 2021, <a href="https://www.aamc.org/media/54681/download?attachment">https://www.aamc.org/media/54681/download?attachment</a>.
- <sup>428</sup> Patrick Boyle, "Medical school enrollments grow, but residency slots haven't kept pace," Association of American Medical Colleges, September 3, 2020, <a href="https://www.aamc.org/news/medical-school-enrollments-grow-residency-slots-haven-t-kept-pace">https://www.aamc.org/news/medical-school-enrollments-grow-residency-slots-haven-t-kept-pace</a>.
- <sup>429</sup> Peter Jaret, "Attracting the next generation of physicians to rural medicine," Association of American Medical Colleges," February 3, 2020, <a href="https://www.aamc.org/news/attracting-next-generation-physicians-rural-medicine#:~:text=Encouraging% 20young% 20doctors,Osteopathic% 20Medicine">ne.</a>
- <sup>430</sup> Peter Jaret, "Attracting the next generation of physicians to rural medicine," Association of American Medical Colleges," February 3, 2020, https://www.aamc.org/news/attracting-next-generation-physicians-rural-medicine#:~:text=What%E2%80%99s%20more%2C%20the.medical%20student%20body.
- <sup>431</sup> National Center for Health Workforce Analysis, "State of the Maternal Health Workforce Brief," August 2022, <a href="https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/maternal-health-workforce-brief-2022.pdf">https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/maternal-health-workforce-brief-2022.pdf</a>.
- <sup>432</sup> John E. Snyder, Anne L. Stahl, Robin A. Streeter and Michelle M. Washko, "Regional Variations in Maternal Mortality and Health Workforce Availability in the United States," *Annals of Internal Medicine*, Vol. 173, No. 11, 45-54, December 1, 2020, <a href="https://www.acpjournals.org/doi/10.7326/M19-3254">https://www.acpjournals.org/doi/10.7326/M19-3254</a>.
- <sup>433</sup> Hanna Love and DW Rowlands, "Mapping rural America's diversity and demographic change," Brookings Institution, September 28, 2021, <a href="https://www.brookings.edu/blog/the-avenue/2021/09/28/mapping-rural-americas-diversity-and-demographic-">https://www.brookings.edu/blog/the-avenue/2021/09/28/mapping-rural-americas-diversity-and-demographic-</a>
- change/#:~:text=Contrary%20to%20the,2020%20(Figure%201).
- <sup>434</sup> Katy Backes Kozhimannil and Carrie Henning-Smith, "Missing Voices In America's Rural Health Narrative," Health Affairs Blog, April 10, 2019, <a href="https://www.healthaffairs.org/content/forefront/missing-voices-america-s-rural-health-narrative">https://www.healthaffairs.org/content/forefront/missing-voices-america-s-rural-health-narrative</a>.
- <sup>435</sup> Katy Backes Kozhimannil and Carrie Henning-Smith, "Missing Voices In America's Rural Health Narrative," Health Affairs Blog, April 10, 2019,

 $\underline{https://www.healthaffairs.org/content/forefront/missing-voices-america-s-rural-health-narrative.}$ 

- <sup>436</sup> Natalia V. Oster, Susan M. Silkmna and Bianca K. Frogner, "Health Workforce Issues in American Indian and Alaska Native (AI/AN) Populations," Center for Health Workforce Studies, University of Washington, July 2022, <a href="https://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2022/07/2022">https://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2022/07/2022</a> AI AN Workforce RR Brief.pdf.
- <sup>437</sup> American Academy of Family Physicians, "Rural Practice, Keeping Physicians In (Position Paper)," 2002,
- https://www.aafp.org/about/policies/all/rural-practice-keeping-physicians.html.
- <sup>438</sup> Ian T. MacQueen, Melinda Maggard-Gibbons, Gina Capra, Laura Raaen, Jesus G. Ulloa, Paul G. Shekelle, Isomi Miake-Lye, Jassica M. Beroes and Susanne Hempel, "Recruiting Rural Healthcare Providers Today: a Systematic Review of Training Program Success and Determinants of Geographic Choices," *J Gen Intern Med*, Vol. 3, No. 2, 191-199, February 2018, <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5789104/#:~:text=The%20fact%20that%2030%20to%2052%25%20of%20providers%20from%20rural%20backgrounds%20reported%20entering%20rural%20practice%20is%20promising.
- <sup>439</sup> Peter Jaret, "Attracting the next generation of physicians to rural medicine," Association of American Medical Colleges, February 3, 2020, https://www.aamc.org/news/attracting-next-generation-physicians-rural-medicine#:~:text=Encouraging% 20young% 20doctors,Osteopathic% 20Medicine.
- $^{440}$  Rural Medical Scholars Program, College of Community Health Services, The University of Alabama,  $\underline{\text{https://cchs.ua.edu/rural-programs/rmsp/}}.$
- <sup>441</sup> Mississippi Rural Physician Scholarship Program, The University of Mississippi,
- https://www.umc.edu/Office%20of%20Academic%20Affairs/For-Students/Academic%20Outreach%20Programs/Mississippi%20Rural%20Physicians%20Scholarship%20Program/Mississippi%20Rural%20Physicians%20Scholarship%20Program.html.
- <sup>442</sup> James Carter and Wahnee Sherman, "Looking back on fifteen years of the Mississippi Rural Physicians Scholarship Program," *Journal of the Mississippi State Medical Association*, Vol. 64, No. 1, January 18, 2023, <a href="https://jmsma.scholasticahq.com/article/68059-looking-back-on-fifteen-years-of-the-mississippi-rural-physicians-scholarship-program">https://jmsma.scholasticahq.com/article/68059-looking-back-on-fifteen-years-of-the-mississippi-rural-physicians-scholarship-program</a>.
- <sup>443</sup> Health Resources Administration, National Health Service Corps, "Who We Are," <a href="https://nhsc.hrsa.gov/">https://nhsc.hrsa.gov/</a>.

<sup>444</sup> Health Resources and Services Administration, "Teaching Health Center Graduate Medical Education (THCGME) Program," May 2023, <a href="https://bhw.hrsa.gov/funding/apply-grant/teaching-health-center-graduate-medical-education">https://bhw.hrsa.gov/funding/apply-grant/teaching-health-center-graduate-medical-education</a>.

- <sup>445</sup> Andrea Price-Carter, "Health Care Workforce Supported in FY24 Budget," Leading Age, March 10, 2023, <a href="https://leadingage.org/health-care-workforce-supported-in-fy24-budget/">https://leadingage.org/health-care-workforce-supported-in-fy24-budget/</a>.
- <sup>446</sup> Office of Family Assistance, "About Health Profession Opportunity Grants," February 21, 2023,

 $\underline{https://www.acf.hhs.gov/ofa/programs/hpog/about}.$ 

<sup>447</sup> Congress.gov, "S.3189 – 117<sup>th</sup> Congress (2021-2022): Pathways to Health Careers Act," November 4, 2021, <a href="https://www.congress.gov/bill/117th-congress/senate-">https://www.congress.gov/bill/117th-congress/senate-</a>

<u>bill/3189/text?s=2&r=26&q=%7B%22search%22%3A%5B%22%22%5D%7</u>D.

448 Charles Rutheiser, "The Promise and Prospects of Anchor Institutions: some thoughts on an emerging field," U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2011,

https://www.huduser.gov/portal/pdredge/pdr\_edge\_hudpartrpt\_062211.html.

 $^{449}$  Kathleen Bolter and Jim Robey, "Agglomeration Economies: A Literature Review," The Fund for Our Economic Future, 2020,

https://research.upjohn.org/cgi/viewcontent.cgi?article=1256&context=reports

- <sup>450</sup> Patrick T. Harker, "Introducing the Anchor Economy Initiative: 'Eds and Meds' and Their Economic Impact" Federal Reserve Bank Philadephia, October 11, 2022, <a href="https://www.philadelphiafed.org/community-development/workforce-and-economic-development/221011-university-of-north-">https://www.philadelphiafed.org/community-development/workforce-and-economic-development/221011-university-of-north-</a>
- $\frac{carolina\#:\sim:text=Eds\%20 and\%20 meds\%20 also,economies\%20 than\%20 those\%20 without.$
- <sup>451</sup> Patrick Harker, Deborah Diamond, Dabin Reed, "Anchor Impacts: Understanding the Role of Higher Education and Hospitals in Regional Economics," Federal Reserve Bank Philadelphia,

 $\frac{https://www.philadelphiafed.org/-/media/frbp/assets/community-development/reports/anchor-economy-report-92022.pdf.$ 

- <sup>452</sup> Susan Fitter Harris, "Anchor Institutions Open Doors in Their Communities," LISC, 2017, <a href="https://www.lisc.org/our-resources/resource/anchor-institutions-open-doors-their-communities/">https://www.lisc.org/our-resources/resource/anchor-institutions-open-doors-their-communities/</a>.
- <sup>453</sup> Emily Warren, "The Role of Anchor Institutions in Supporting Local Communities," ICIC, <a href="https://icic.org/blog/role-anchor-institutions-supporting-local-communities/">https://icic.org/blog/role-anchor-institutions-supporting-local-communities/</a>.

<sup>454</sup> The National Academies of Sciences, "Communities in Action: Pathways to Health Equity," 2018,

https://nap.nationalacademies.org/resource/24624/anchor-institutions/.

<sup>455</sup> Scott Andes, Mark Muro, and Matthew Step, "Going Local: Connecting the National Labs to their Regions to Maximize Innovation and Growth." Brookings Institute, September 10, 2014,

 $\underline{https://www.brookings.edu/articles/going-local-connecting-the-national-labs-to-their-regions-to-maximize-innovation-and-growth/.}$ 

<sup>456</sup> J. Stephen Rottler, "Sandia National Laboratories as a Catalyst for Regional Growth," National Library of Medicine, 2012, https://www.ncbi.nlm.nih.gov/books/NBK115038/.

<sup>457</sup> Kathleen Bolter and Jim Robey, "Agglomeration Economies: A Literature Review," The Fund for our Economic Future, 2020,

https://research.upjohn.org/cgi/viewcontent.cgi?article=1256&context=reports

<sup>458</sup> Enrico Moretti, "The Effect of High -Tech Clusters on the Productivity of Top Inventors," National Bureau of Economic Research, Working Paper 26270, August 2021,

https://www.nber.org/system/files/working\_papers/w26270/w26270.pdf.

<sup>459</sup> Enrico Moretti, "The Effect of High-Tech Clusters on the Productivity of Top Inventors," National Bureau of Economic Research, Working Paper 26270, August 2021,

https://www.nber.org/system/files/working\_papers/w26270/w26270.pdf.

<sup>460</sup> Edward L. Glaeser and Albert Saiz, "The Rise of the Skilled City," National Bureau of Economic Research, Working Paper 10191, December 2003.

https://www.nber.org/system/files/working\_papers/w10191/w10191.pdf.

- <sup>461</sup> Ryan Buscaglia and Melissa Roberts Chapman, "Cluster Development is the New Economic Development," Federation of American Scientists, January 12, 2023, <a href="https://fas.org/publication/cluster-development-is-the-new-economic-development/">https://fas.org/publication/cluster-development-is-the-new-economic-development/</a>.
- <sup>462</sup> Catherine Hausman, "Principles for Public Investment in Climate-Responsible Energy Innovation," Brookings Institute, April 2023, <a href="https://www.brookings.edu/wp-content/uploads/2023/04/Hausman-Climate-Policy-Proposal-1.pdf">https://www.brookings.edu/wp-content/uploads/2023/04/Hausman-Climate-Policy-Proposal-1.pdf</a>.
- <sup>463</sup> Timothy J. Bartik, Aaron Sojourner, and Kathleen Bolter, "The CHIPS and Science Act is a chance for businesses and local leaders to collaborate on a stronger child care system," Brookings Institute, June 2, 2023, <a href="https://www.brookings.edu/articles/the-chips-and-science-act-is-a-chance-for-businesses-and-local-leaders-to-collaborate-on-a-stronger-child-care-system/">https://www.brookings.edu/articles/the-chips-and-science-act-is-a-chance-for-businesses-and-local-leaders-to-collaborate-on-a-stronger-child-care-system/</a>.

- <sup>464</sup> President Joe Biden, "Fact Sheet: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China," The White House, August 9, 2022, <a href="https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/">https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/</a>.
- <sup>465</sup> Mark Muro, Joseph Parilla, and Martha Ross, "What state and local leaders need to know about the federal government's regional Tech Hubs competition," Brookings Institute, May 16, 2023,
- $\frac{https://www.brookings.edu/articles/what-state-and-local-leaders-need-to-know-about-the-federal-governments-regional-tech-hubs-competition/.$
- <sup>466</sup> Dan McCarthy and Maria Virginia Olano, "The remarkable upsurge in US Clean energy manufacturing, in charts," *Canary Media*, June 6, 2023, <a href="https://www.canarymedia.com/articles/clean-energy-manufacturing/the-remarkable-upsurge-in-usclean-energy-manufacturing-in-charts">https://www.canarymedia.com/articles/clean-energy-manufacturing-in-charts</a>.
- <sup>467</sup> Eric Van Nostrand, Tara Sinclair, and Samarth Gupta, "Unpacking the Boom in U.S. Construction of Manufacturing Facilities," U.S. Department of the Treasury, June 27, 2023, <a href="https://home.treasury.gov/news/featured-stories/unpacking-the-boom-in-us-construction-of-manufacturing-facilities">https://home.treasury.gov/news/featured-stories/unpacking-the-boom-in-us-construction-of-manufacturing-facilities</a>.
- <sup>468</sup> Connor O'Brien, "Factory Boom in the Mountain West and Upper Midwest Accelerated into the Spring," Economic Innovation Group, June 13, 2023, <a href="https://eig.org/manufacturing-construction-boom/">https://eig.org/manufacturing-construction-boom/</a>.
- <sup>469</sup> U.S. Department of Energy, Office of Clean Energy Demonstrations, "Regional Clean Hydrogen Hubs," <a href="https://www.energy.gov/oced/regional-clean-hydrogen-hubs">https://www.energy.gov/oced/regional-clean-hydrogen-hubs</a>.
- <sup>470</sup> Andrew Aurand, Mackenzie Pish, Ikra Rafi, and Diane Yentel, "Out of Reach," National Low Income Housing Coalition, 2023, <a href="https://nlihc.org/oor.">https://nlihc.org/oor.</a>
- <sup>471</sup> Peter J. Mateyka and Jayne Yoo, "Share of Income Needed to Pay Rent Increased the Most for Low-Income Households From 2019 to 2021," United States Census Bureau, March 2, 2023,
- https://www.census.gov/library/stories/2023/03/low-income-renters-spent-larger-share-of-income-on-rent.html.
- <sup>472</sup> United States Census Bureau, "Quick Facts: Households, 2017-2021," <a href="https://www.census.gov/quickfacts/geo/chart/US/HSD410221">https://www.census.gov/quickfacts/geo/chart/US/HSD410221</a>.
- <sup>473</sup> United States Department of Housing and Urban Development, Office of Policy Development and Research, "Housing Needs of American Indians and Alaska Natives in Tribal Areas," January 2017,
- $\underline{https://www.huduser.gov/portal/sites/default/files/pdf/HNAIHousingNeeds.pd} \underline{f}.$
- <sup>474</sup> U.S. House of Representatives Committee on Appropriations, "Oversight Hearing Tribal Perspectives on Housing and Transportation," April 28,

- $2023, \underline{https://appropriations.house.gov/legislation/hearings/oversight-hearing-tribal-perspectives-housing-and-transportation}.$
- <sup>475</sup> U.S. Department of Health and Human Services, "Fact Sheet: American Indians and Alaska Natives Trust Responsibility," <a href="https://www.acf.hhs.gov/ana/fact-sheet/american-indians-and-alaska-natives-trust-responsibility">https://www.acf.hhs.gov/ana/fact-sheet/american-indians-and-alaska-natives-trust-responsibility</a>.
- <sup>476</sup> Senator Martin Heinrich, "Heinrich, Bennet Introduce Bill to Expand and Improve Tribal Access to Clean Water," July 16, 2021,
- $\frac{https://www.heinrich.senate.gov/newsroom/press-releases/heinrich-bennet-introduce-bill-to-expand-and-improve-tribal-access-to-clean-water.$
- <sup>477</sup> U.S. Department of Housing and Urban Development, "Rural Rental Housing Loans (Section 515)," September 2002,
- https://www.hud.gov/sites/documents/19565 515 RURALRENTAL.PDF.
- <sup>478</sup> The Housing Assistance Council, "USDA Rural Rental Assistance Program (Section 521)," June 2008, <a href="https://ruralhome.org/wp-content/uploads/storage/documents/rd521ra.pdf">https://ruralhome.org/wp-content/uploads/storage/documents/rd521ra.pdf</a>.
- <sup>479</sup> Lance George, Michael Feinberg, Keith Wiley, Leslie Strauss, Christina Davila, and Dan Stern, "Rental Housing for a 21<sup>st</sup> Century Rural America," Housing Assistance Council, September 2018, <a href="https://ruralhome.org/rural-america-is-losing-its-affordable-rental-housing/">https://ruralhome.org/rural-america-is-losing-its-affordable-rental-housing/</a>.
- <sup>480</sup> Leslie R. Strauss, "USDA Rural Rental Housing Programs," National Low Income Housing Coalition, 2019, <a href="https://nlihc.org/sites/default/files/AG-2019/04-13">https://nlihc.org/sites/default/files/AG-2019/04-13</a> USDA-Rural-Rental-Housing-Programs.pdf.
- <sup>481</sup> Leslie R. Strauss, "USDA Rural Rental Housing Programs," National Low Income Housing Coalition, 2019, <a href="https://nlihc.org/sites/default/files/AG-2019/04-13">https://nlihc.org/sites/default/files/AG-2019/04-13</a> USDA-Rural-Rental-Housing-Programs.pdf.
- <sup>482</sup> The Housing Assistance Council, "Senate and House Committees Adopt Different Figures for FY24 USDA Spending," June 18, 2023, <a href="https://ruralhome.org/usda-housing-funding-fy24/">https://ruralhome.org/usda-housing-funding-fy24/</a>.
- <sup>483</sup> National Low Income Housing Coalition, "Housing Needs in Rural America," March 31, 2021, <a href="https://nlihc.org/sites/default/files/Housing-Needs-in-Rural-America.pdf">https://nlihc.org/sites/default/files/Housing-Needs-in-Rural-America.pdf</a>.
- <sup>484</sup> United States Senate Committee on Banking, Housing and Urban Affairs, Subcommittee on Housing, Transportation, and Community Development, "Statement by Xochitl Torres Small, Undersecretary for Rural Development," May 25, 2022,
- $\frac{https://www.banking.senate.gov/imo/media/doc/Small% 20HTCD% 20Testimon w% 205-25-22.pdf.$

- <sup>485</sup> National Low Income Housing Coalition, "Housing Needs in Rural America," March 31, 2021, <a href="https://nlihc.org/sites/default/files/Housing-Needs-in-Rural-America.pdf">https://nlihc.org/sites/default/files/Housing-Needs-in-Rural-America.pdf</a>.
- <sup>486</sup> Shannon Pettypiece, "The remote workers have left, but the housing havoc they created remains," *NBC News*, February 6, 2023,
- $\underline{https://www.nbcnews.com/politics/economics/remote-workers-left-housing-havoc-created-remains-rcna 68874.}$
- <sup>487</sup> Will Fischer, Sonya Acosta, and Erik Gartland, "More Housing Vouchers: Most Important Step to Help More People Afford Stable Homes," Center on Budget and Policy Priorities, May 13, 2021,
- $\frac{https://www.cbpp.org/research/housing/more-housing-vouchers-most-important-step-to-help-more-people-afford-stable-homes#vouchers-reduce-homelessness-and-housing-cbpp-anchor.\\$
- <sup>488</sup> Office of Senator Martin Heinrich, "The DEPOSIT Act," June 6, 2023, <a href="https://www.heinrich.senate.gov/imo/media/doc/deposit">https://www.heinrich.senate.gov/imo/media/doc/deposit</a> act one pager.pdf.
- <sup>489</sup> Peter Hepburn, Olivia Jin, Joe Fish, Emily Lemmerman, Anne Kat Alexander, and Matthew Desmond, "Preliminary Analysis: Eviction Filing Patterns in 2021," Princeton University Eviction Lab, March 8, 2022, <a href="https://evictionlab.org/us-eviction-filing-patterns-2021/">https://evictionlab.org/us-eviction-filing-patterns-2021/</a>.
- <sup>490</sup> U.S. Department of the Treasury, "New Treasury Data Shows Over 80% of Emergency Rental Assistance Delivered to Lowest-Income Households," February 24, 2022, https://home.treasury.gov/news/press-releases/jy0606.
- <sup>491</sup> The American Civil Liberties Union and the National Coalition for a Civil Right to Counsel, "No Eviction without Representation," n.d.,

https://www.aclu.org/report/no-eviction-without-

representation?redirect=evictionbrief.

- <sup>492</sup> National Coalition for a Civil Right to Counsel, "The Right to Counsel for Tenants Facing Eviction: Enacted Legislation," July 2023, <a href="http://civilrighttocounsel.org/uploaded">http://civilrighttocounsel.org/uploaded</a> files/283/RTC Enacted Legislation in Eviction Proceedings FINAL.pdf.
- 493 The American Civil Liberties Union and the National Coalition for a Civil Right to Counsel, "No Eviction without Representation," n.d.,

https://www.aclu.org/report/no-eviction-without-

representation?redirect=evictionbrief.

<sup>494</sup> Brianne Schell and Kerri McGowan Lowrey, "Health and Affordable Housing Fact Sheet," The Network for Public Health Law, October 2021, <a href="https://www.networkforphl.org/wp-content/uploads/2021/11/Fact-Sheet-Rent-Control-and-Stabilization.pdf">https://www.networkforphl.org/wp-content/uploads/2021/11/Fact-Sheet-Rent-Control-and-Stabilization.pdf</a>.

<sup>495</sup> Urban Institute, "Rent Control," January 2019,

https://www.urban.org/sites/default/files/publication/99646/rent control. what does the research tell us about the effectiveness of local action 1.pdf.

<sup>496</sup> Manuel Pastor, Vanessa Carter, and Maya Abood, "Rent Matters: What are the Impacts of Rent Stabilization Measures?" University of Southern California Dornsife Program for Environmental and Regional Equity, October 2018, <a href="https://dornsife.usc.edu/eri/wp-">https://dornsife.usc.edu/eri/wp-</a>

content/uploads/sites/41/2023/01/2018RentMattersPERE.pdf.

<sup>497</sup> Jack Tsai, Alvin S. Mares, and Robert A. Rosenheck, "A multi-site comparison of supported housing for chronically homeless adults: 'Housing first' versus 'residential treatment first," Psychological Services, Vol. 2, No. 4, 219-232, August 7, 2011,

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3151537/.

<sup>498</sup> Yinan Peng, Robert A. Hahn, Ramona K.C. Finnie, Jamaicia Cobb, Samantha P. Williams, Jonathan E. Fielding, Robert L. Johnson, Ann Elizabeth Montgomery, Alex Schwartz, Carles Muntaner, Veronica Helms Garrison, Beda Jean-Francois, Benedict I. Truman, Mindy T. Fullilove, and Community Preventive Services Task Force, "Permanent Supportive Housing with Housing First to Reduce Homelessness and Promote Health among Homeless Populations with Disability: A Community Guide Systematic Review, Journal of public health management and practice," Journal of Public Health Management and Practice, Vol. 26, No. 5, 404-411, October 13, 2021, <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8513528/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8513528/</a>.

<sup>500</sup> The White House, "President Biden Announces New Actions to Ease the Burden of Housing Costs," May 16, 2022,

https://www.whitehouse.gov/briefing-room/statements-

 $\underline{releases/2022/05/16/president-biden-announces-new-actions-to-ease-the-\underline{burden-of-housing-costs/}.$ 

<sup>501</sup> The White House, "Fact Sheet: Biden-Harris Administration Announces New Actions to Protect Renters and Promote Rental Affordability," January 25, 2023, <a href="https://www.whitehouse.gov/briefing-room/statements-releases/2023/01/25/fact-sheet-biden-harris-administration-announces-new-actions-to-protect-renters-and-promote-rental-affordability/">https://www.whitehouse.gov/briefing-room/statements-releases/2023/01/25/fact-sheet-biden-harris-administration-announces-new-actions-to-protect-renters-and-promote-rental-affordability/</a>.