118th CONGRESS
2nd Session

SENATE

REPORT
118-183

THE 2024 JOINT ECONOMIC REPORT

R E P O R T

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ON THE

2024 ECONOMIC REPORT
OF THE PRESIDENT

JUNE 17, 2024 – Ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 2024

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[Created pursuant to Sec. 5 (a) of Public Law 304, 79th Congress]

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LETTER OF TRANSMITTAL

June 17, 2024

HON. CHARLES E. SCHUMER
Majority Leader, U.S. Senate
Washington, DC

DEAR MR. LEADER:

Pursuant to the requirements of the *Employment Act of 1946*, as amended, I hereby transmit the 2024 Joint Economic Report. The analyses and conclusions of this Report are to assist the several Committees of the Congress and its Members as they deal with economic issues and legislation pertaining thereto.

Sincerely,

Martin Heinrich
Chairman

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THE 2024 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 2024 Economic Report of the President

CHAIRMAN'S VIEWS

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

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

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

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

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

For example, we must find ways to transition to cleaner energy sources and mitigate the effects of climate change, while also

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

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

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

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

MARTIN T. HEINRICH
CHAIRMAN

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

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

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

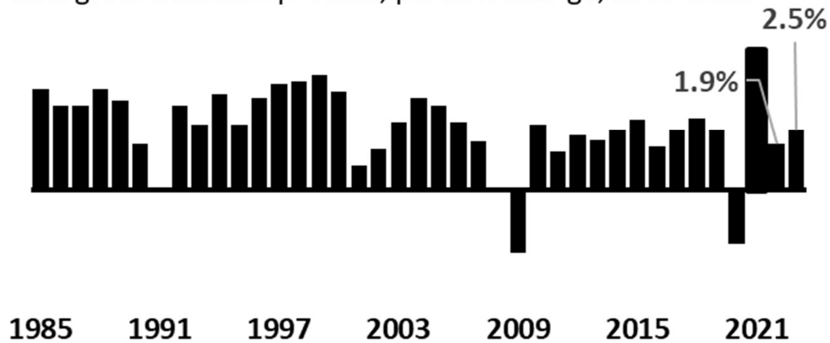
The U.S. economy in 2023 was characterized by stronger than expected growth, defying earlier predictions of a recession.[1] Economic growth for the year was powered by robust consumer spending, a revitalization in manufacturing investment with levels not seen since the 1950s, and increased government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

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

pandemic level in the first quarter of 2021.[10] By the third quarter of 2023, the United States had surpassed the average G7 annualized quarterly growth rate by over five percentage points.[11]

GDP Increased by Over 10% in the Past Three Years

Real gross domestic product, percent change, 1985-2023



Source: Bureau of Economic Analysis.

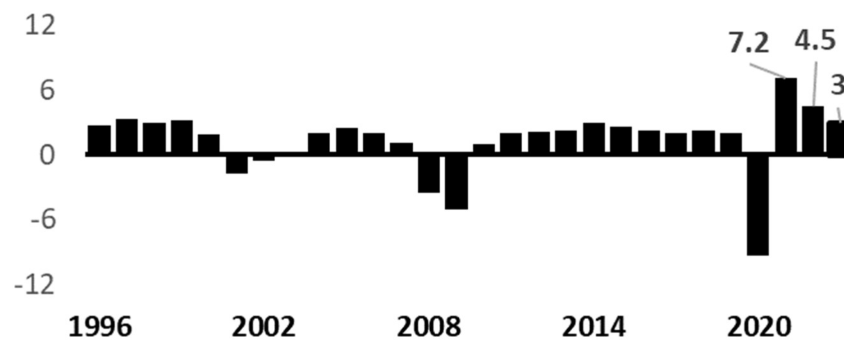
While business investment deteriorated slightly during 2023, investment in structures posted a solid increase of 13.2%, a level not seen in 17 years.[12] This uptick combined with rising consumption–especially of durable goods and services–and government spending annual GDP.[13] Nonresidential fixed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

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

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

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

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



Source: Bureau of Labor Statistics.

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

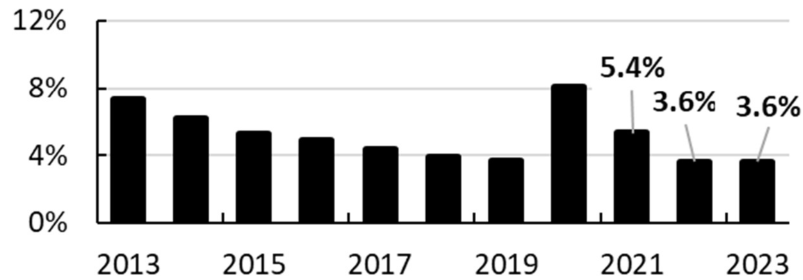
It is a testament to the resilience of the American economy that there are currently over 3 million more jobs than the Congressional Budget Office (CBO) projected there would be in the first quarter of 2024 in their January 2020 forecast.[24,25] Businesses continue to add jobs and provide opportunities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

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

The unemployment rate averaged 3.6% in 2023 and has remained near record lows to start 2024.[30] Despite a slight uptick in the first quarter of 2024, the unemployment rate has remained at or below 4% since December 2021, the longest streak in over 50 years.[31,32] The labor force participation rate registered 62.5% in May 2024, nearing its highest level since before the pandemic. More specifically, the labor force participation rate for workers ages 25 to 54 reached 83.6% last month, surpassing pre-pandemic levels.[33,34] As of April 2024, 37 states plus the District of Columbia had unemployment rates lower than before March 2020 and only 2 states and the District of Columbia registered unemployment rates higher than 5%.[35]

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

Annual unemployment rate, 2013-2023



Source: Bureau of Labor Statistics.

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

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

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

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

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

Women and Black Americans have faced and overcome obstacles to employment that were especially significant during the pandemic.[45] May 2024 saw the United States set a record high for women's employment and labor force participation among workers ages 25 to 54.[46] This record shows the resilience of women in the workforce despite the ongoing challenges of increased caregiving responsibilities and job losses during the pandemic. Similarly, Black Americans have reached significant milestones, with labor force participation rates matching those of white Americans in recent months and achieving the narrowest employment gap ever recorded.[47] This progress aligns with historically low Black unemployment rates and a steady decline in wage gaps with white and Hispanic workers.[48]

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

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

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

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

these well-compensated manufacturing positions significantly contributed to a 20% reduction in median income for working-class men without a high school diploma between 1990 to 2013.[58] The investments made by President Biden and Democrats in Congress are beginning to undo this long-running trend; this topic is explored further in Chapter 2 of this response.

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

Throughout 2023, the Federal Reserve took a cautious approach to combating inflation, raising rates at only four of its eight meetings.[59] By August 2023, the Federal Reserve had increased the federal funds rate by an additional 100 basis points, adding to the previous year's hikes of 425 basis points, totaling an increase in the Federal Funds Target Range of 525 basis points in less than two years.[60] However, by the end of 2023, the Federal Reserve had adopted a more dovish tone as inflation readings continued to fall.[61] At this point, no further rate hikes are expected and there is a possibility that the Federal Reserve will begin to cut rates during the second half of 2024.[62]

Although inflation remains a concern for many families, it has decreased significantly since 2022.[63] April's Consumer Price Index (CPI) data showed a 3.4% increase over the past year, notably lower than the peak of 9.1% in June 2022.[64,65] Data from the last six months of 2023 indicates that the Federal Reserve's preferred inflation gauge—core Personal Consumption Expenditures (PCE), which excludes volatile food and energy prices—continued approaching its 2% target.[66] This suggests that the United States is making progress in combating inflation. Though readings at the start of 2024 signaled that progress on inflation will be uneven, the underlying trend still points towards continued disinflation.[67] For example, the trimmed mean CPI and

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

Inflation has been on a downward trend for the past 18 months, driven in part by decreases in food, energy, and goods inflation.[69] Inflationary pressures are expected to continue normalizing as falling shelter costs for new leases begin to be reflected in the inflation data. Elevated shelter inflation has helped keep services inflation high in recent years but is expected to fall in the latter half of 2024.[70] This should help make up for recent increases in service costs like motor vehicle insurance that are largely lagged effects of the pandemic-era increase in car prices.[71]

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

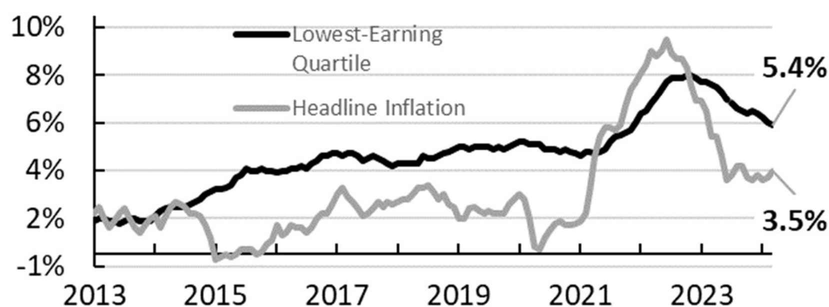
The labor market remained robust throughout 2023, enabling workers to secure improved jobs and higher pay. Furthermore, with the easing of inflationary pressures, workers have experienced real wage gains, as wages and salaries have outpaced prices since the start of 2021.[72] Calculations by the JEC Democratic staff show that national average wages and salaries grew by nearly $17,000 between January 2021 and April 2024, outpacing price growth during that period by nearly $3,800.[73]

The demand for labor continues to be strong. At the end of the year, there were 8.8 million job openings, which had been trending down throughout the year but still implied about 1.4 job openings per unemployed person, down from the peak of 2 jobs per unemployed person in March 2022.[74] The ongoing availability of jobs is helping to reintegrate marginalized workers into the workforce, while also increasing their bargaining power to negotiate for higher wages. This trend is underscored by the

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

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

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



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

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

These trends of higher wages for the lowest earners may continue during 2024.[78] With job openings still at near record highs, and renewed optimism towards strong union membership, the demand for labor will continue to be strong and will allow workers to find new jobs more easily and negotiate higher wages. While the differential is dissipating, workers who switched jobs in 2023 and onto 2024 saw their median wage rise more than those who remained in their current jobs.[79]

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

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

The anticipated rise in deficits and debt over the next few years is primarily attributed to escalating spending on Social Security, major healthcare programs like Medicare, and interest payments, surpassing revenues strained by successive rounds of tax reductions under Republican administrations. This fiscal challenge is further compounded by an aging population and escalating healthcare costs per capita. According to projections by the Congressional Budget Office (CBO), the federal debt held by the public, currently at 99% of GDP in 2024, is expected to climb to 116% by 2034 and to a staggering 172% by 2054.[80]

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

trillion expansion in GDP and a $1 trillion increase in revenue by 2034.[84]

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

Unsustainable levels of debt may hinder economic progress

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

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

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

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

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

Increasing revenue and taxation fairness

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

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

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

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

Lastly, keeping the Internal Revenue Service (IRS) well-funded would bolster revenue collection and play a vital role in narrowing the tax gap, which represents the shortfall between taxes owed and revenues collected, estimated at $688 billion for tax year 2021.[98] The Treasury Department's recent estimate, utilizing a more comprehensive approach, suggests that the original funding provided by the Inflation Reduction Act (IRA) for the IRS could increase revenue by up to $561 billion over a decade. Leveraging IRA funding, the IRS has intensified tax enforcement efforts targeting wealthy individuals and large corporations, resulting in $520 million in collections from millionaires alone.[99] Despite a $21.4 billion reduction in funding as part of the Fiscal Responsibility Act, the IRS has managed to make significant strides in modernizing the agency and enhancing tax enforcement.

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

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

CHAPTER 2: BOOSTING U.S. OUTPUT AND INNOVATION

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

Maintaining American leadership in AI innovation

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

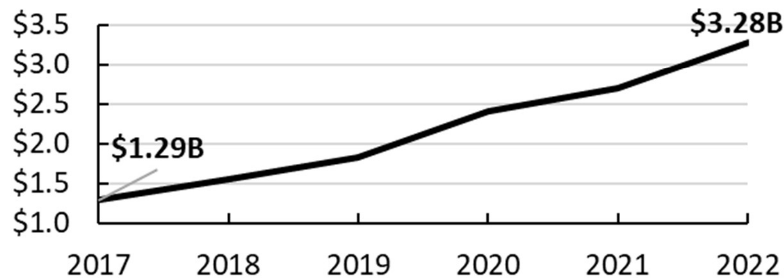
the Consumer Financial Protection Bureau urging action, and the Bureau has increased its focus on how AI technologies affect the financial marketplace.[123,124] Recent proposed bipartisan legislation also aims to protect Americans' data from unfriendly foreign nations.[125] The bill would build upon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

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

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

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

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



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

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

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

While the U.S. government has already made substantial investments in AI R&D and has outlined future goals, far less has been done to ensure that our workforce is ready to continue to support these efforts. For decades, the United States has been a magnet for AI talent–for example, the estimated hiring rate for AI workers in the United States in 2020 was roughly double that in 2016.[129] China's growth rate over the same period was only 30%. However, other research points out that the United States is ahead in technology development but falling behind in people (STEM graduates and technology skill penetration), without which AI implementation will not be nearly as effective.[130] The United States is particularly behind in the number of STEM graduates overall and in those that stay in the United States after graduating. For example, the limited number of skilled worker visas (H1B) makes it challenging both for highly educated workers to stay in the United States and for companies to focus operations here—with Canada and other countries capitalizing on this disincentive.[131]

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

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

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

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

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

Federal investments have led to a boom in new manufacturing facilities

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

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

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

Real Total Manufacturing Construction Spending Surged After CHIPS and IRA

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

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

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

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

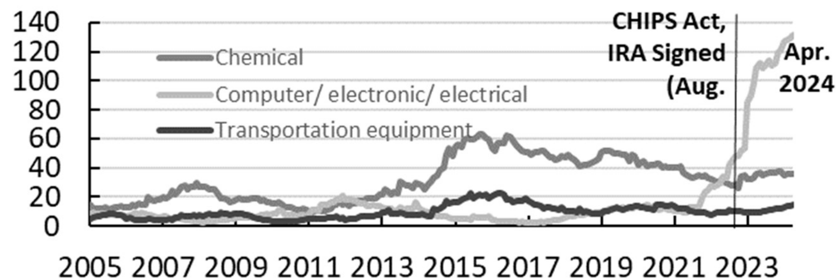
The CHIPS Act and the Inflation Reduction Act's targeted investments in science and technology continue to drive manufacturing investment in the electronics and battery industries

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

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

Computer, Electronic, and Electrical Construction Drives Overall Spending Increase

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



Source: U.S. Census Sector Construction Spending using Federal Reserve Economic Data Price Index of Construction Materials

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

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

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

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

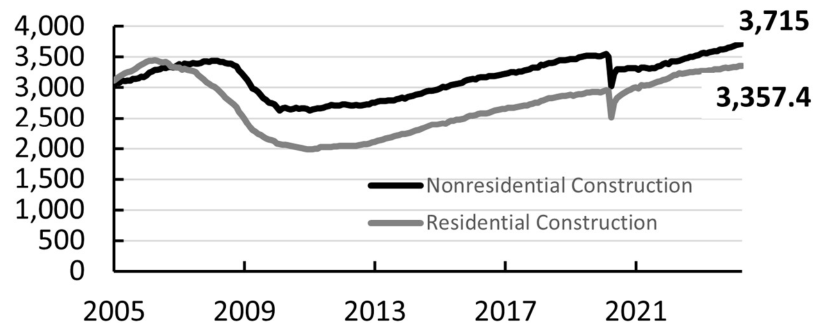
providing increased clean energy tax credits for projects that pay prevailing wages, use registered apprentices and are located in communities that currently or recently relied on fossil fuels to support their local economies.[148]

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

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

Construction Employment Has Risen Steadily Under Biden

Monthly construction jobs by type, thousands



Source: Federal Reserve Economic Data Construction Employees.
Note: Data are seasonally adjusted.

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

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

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

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

Strengthening North American supply chains and trade provides economic benefits

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

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

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

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

Mexico surpassed China to become the top U.S. trading partner in early 2023.[155] It was the first time in 20 years that the United States bought more goods from Mexico than China.[156] Following Mexico, Canada was the second highest trading partner. Combined, Canada and Mexico account for over 30% of the United States' total trade.[157]

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

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

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

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

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

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

The United States and Canada are reliable partners for energy security and climate objectives based on an already strong market for energy trade and a shared commitment to environmental standards.[165] As our largest energy trading partner, Canada can play a key role in growing the clean-energy economy in North America. The United States and Canada are working to achieve net-zero power grids by 2035.[166] The United States is also leveraging funding from the BIL to accelerate the clean-energy transition.[167]

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

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

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

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

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

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

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

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

Port modernization creates economic and climate gains that benefit border communities

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

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

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

Government investment supports productivity growth

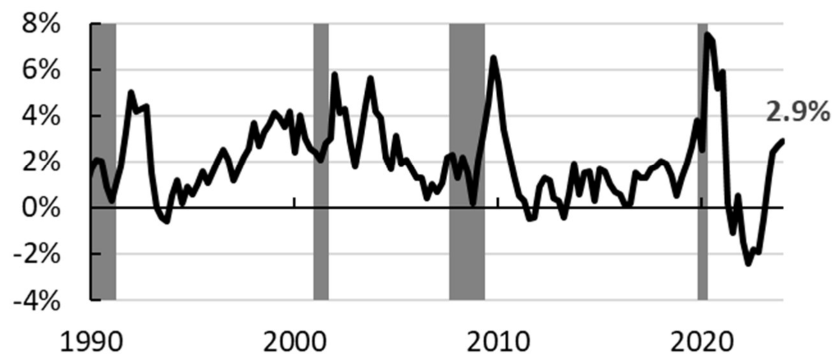
The United States has experienced high productivity growth in recent quarters

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

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

Past high productivity growth came during periods of low unemployment

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



Source: Bureau of Labor Statistics.
Note: Shaded bars are recessions.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAPTER 3: CLIMATE RISKS AND OPPORTUNITIES IN THE ENERGY TRANSITION

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

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

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

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

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

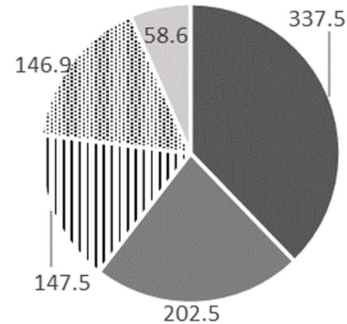
The total annual economic burden of wildfires and flooding in the United States is challenging to measure but large

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

Climate-Exacerbated Wildfires Cost Nearly $900 Billion a Year

Annual total costs and losses in 2022 billions of dollars

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



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

Source: Analysis by JEC Democratic staff.

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

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

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

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

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

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

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

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

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

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

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

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

Climate risks to the financial sector and insurance markets

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

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

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

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

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

Wildfires have led to enormous insured damages in recent years, and their risk is also difficult to quantify and price into insurance policies.[250] This risk is hard to predict because fires can start for several reasons and because their risk to peoples' homes at any given time is based on a complicated combination of topography, drought conditions, wind patterns, fuel amounts, and the location of houses among many other factors.[251] This has led insurers to either raise premium costs substantially or pull out of markets entirely—with several major insurance companies declining to provide coverage in California in the summer of 2023.[252] Californians also saw a 10% increase in premiums at renewal in 2023.[253]

More intense hurricanes have also caused widespread damage in Florida and along the east coast with billion-dollar weather and climate disasters in the United States increasing over the last 40 years.[254] Hurricanes and floods caused $120 billion in insured losses globally in 2022.[255] This has led to large disruptions in the insurance markets on the east coast of the United States, especially in Florida's flawed property reinsurance market. Reinsurance companies sell insurance policies *for* insurance companies, which

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

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

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

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

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

Local governments also face substantial financial risks

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The importance of grid investments

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

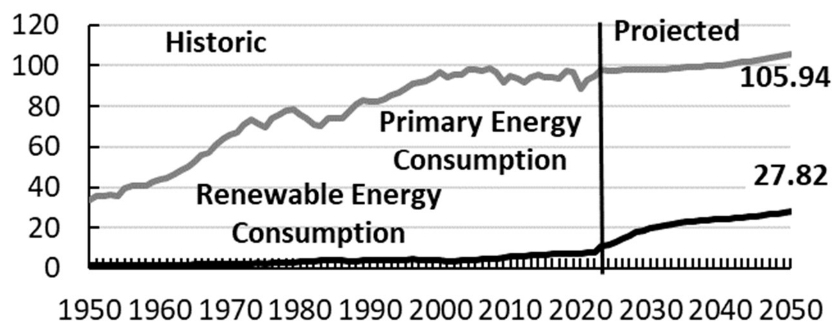
The electrical grid faces climate and security risks alongside greater demand for electricity

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

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

Renewables are making vital contributions to the resilience of the grid

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



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

As extreme weather strains the grid and demand grows, renewable sources of energy are already playing a significant role in building grid resilience. The EIA projects that renewable generation will supply nearly half of all electricity by 2050.[294] Already, 2,510 gigawatts (GW) of clean electricity generation and storage capacity are seeking interconnection to the grid—twice the installed capacity of the U.S. power plant fleet.[295] Around the

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

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

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

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

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

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

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

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

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

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

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

From 2021 to 2022, the U.S. Department of Energy found that job growth in clean energy roles grew by 3.9%, outpacing the national employment growth rate of 3.1% in that same window.[316] The Bureau of Labor Statistics (BLS) also predicts long-term demand for these workers: BLS projects wind turbine service technicians to be the fastest-growing occupation between 2022 and 2032, with solar photovoltaic installers also among the top 15.[317] Looking more broadly, BLS also predicts that over the next decade the United States will need to fill at least 735,000 job openings for electricians, 426,000 for plumbers and pipefitters, nearly 400,000 for HVAC mechanics, and nearly 100,000 for utility line workers to meet demand. These positions, while not also thought of as parts of the clean energy workforce, play a vital role in the energy transition.[318,319,320321]

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

workers, brought about by an aging workforce and lagging investment in worker training.[323,324]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The importance of international climate finance

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

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

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

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

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

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

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

development banks implement policies to attract this investment.[371]

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

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

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

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

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

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

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

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

Several countries have also proposed imposing taxes and levies on activities such as shipping and aviation to fund climate action. At COP28, a task force was launched by representatives from Barbados, France, Kenya, and others to examine the potential for these and other innovative funding sources. They have since found that global agreement on the range of taxes and levies they considered could help generate an additional $2.2 trillion a year. The task force is expected to put forward relevant options before COP30 in 2025.[392]

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

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

Increasing U.S. international climate finance was an early priority of the Biden administration, which pledged in 2021 to allocate more than $11.4 billion annually by 2024.[395] $3 billion of this funding was to be directed to adaptation efforts. To date, the funding appropriated by Congress has consistently fallen far short of these levels, and U.S. climate finance commitments remain significantly below those of other advanced economies.[396,397,398]

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

Areas for future exploration

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

CHAPTER 4: CREATING CONDITIONS FOR EQUITABLE GROWTH

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

These efforts are needed to ensure economic growth reaches all regions of the United States. Without including the U.S. Territories, as of 2019 about 20 million people lived in counties that have experienced high levels of poverty since the 1990s.[402] All 78 counties in Puerto Rico have been in poverty for at least the last thirty years, according to 2015 U.S. Department of the Treasury data, in addition to all of American Samoa, the Commonwealth of the Northern Marina Islands, and the U.S. Virgin Islands.[403] Of the 318 counties that faced persistent poverty in 2021 within states, the majority (84%) were rural (nonmetro) counties, and were primarily in the southeastern and the southwestern regions of the country.[404,405] Notably, these are also the two regions that are experiencing the greatest negative economic impacts from climate change.[406] Finally, a vast majority (87%) of counties that have faced persistent poverty since 1990 had a 20% poverty rate—or higher—in every decennial census since 1960.[407]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The federal government has worked with state and local partners to spur economic development in distressed communities across the United States using regional commissions or authorities.[477] Currently, there are eight commissions that cover various regions. The oldest of these commissions is the Appalachian Regional Commission (ARC), established in 1965.[478] Congress then established seven more commissions in the following decades and modeled them on the ARC.[479]

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

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

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

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

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

Targeted federal funding can help spur economic growth in Puerto Rico

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

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

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

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

Compounding the challenging growth outlook is the sharp increase in public debt that began after the mid-1990s.[494] Outside investors capitalized on recent legal loopholes that removed the government's constraints on borrowing, as banks and investors pushed deals to increase Puerto Rican debt that earned them large profits.[495,496,497] Ratings agencies also maintained investment-grade credit ratings for Puerto Rico, which contributed to sustained investor demand for debt despite Puerto Rico's ongoing recession.[498,499,500] Later, when ratings agencies downgraded the island's debt, "vulture" firms exploited the island's difficult position by only lending Puerto Rico the funds it needed to cover older obligations at extremely high interest rates.[501,502,503] This further added to Puerto Rico's debt burden, squeezing funds until the governor declared the debt "unpayable" in 2015.[504]

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

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

A clean energy system can provide a path to future prosperity

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

In response to these disasters Congress appropriated a combined $12 billion to modernize the grid and support Puerto Rico's energy infrastructure, but this has not yet resulted in comprehensive changes to the system.[522,523] While the island struggles to access private capital, these funds can serve as the initial investment in a renewable-based system. This also aligns with Puerto Rican law, which requires that the island reach 100% renewable energy dependence by 2050.[524] Moreover, a 2018 JEC Democratic staff report highlighted that a transition to renewable energy would lower energy prices and create a path to increased growth.[525] Such infrastructure can also ensure vulnerable communities, whose health depends on access to electricity, are not left without power.[526]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAPTER 5: SUPPORTING FAMILIES TODAY WHILE INVESTING IN TOMORROW

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

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

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

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

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

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

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

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

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

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

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

Though not as robust, the current structure of the CTC similarly helps families afford essentials and acts as an important anti-poverty program.[582,583] The CTC allows filing taxpayers to claim, up to a total amount of $2,000 per child under 17. This is then phased-out by 5% of income over $200,000. A smaller portion of the total credit, currently up to $1,600, is refundable and limited to 15% of income over $2,500.[584] While the amount of the credit that is fully refundable is scheduled to increase annually with inflation, the families of over 19 million children are still currently prevented from claiming the full level of the credit due to their low incomes.[585,586]

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

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

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

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

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

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

Expanding the Child Tax Credit should be a priority investment

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

The many economic benefits of investing in early childhood education

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

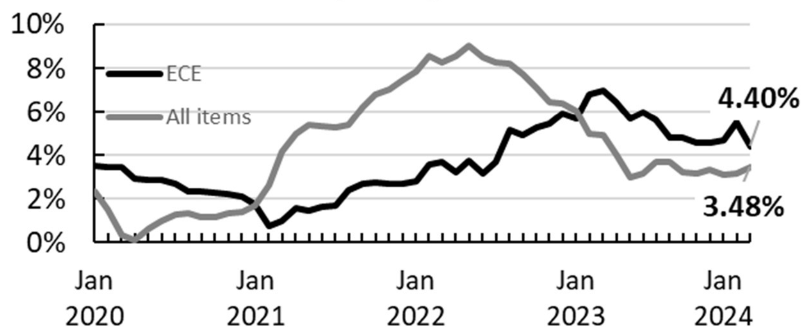
Skyrocketing costs of ECE limit families' ability to pay for necessities

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

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

ECE Price Growth Surpasses Overall Inflation

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



Source: Bureau of Labor Statistics.

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

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

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

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

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

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

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

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

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

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

The federal Child Care and Development Block Grant (CCDBG), part of the Child Care and Development Fund (CCDF), helps lower the cost of child care for low-income families. Though at its current funding levels, the program only assists less than 15% of eligible families.[626,627] Fortunately, the Biden administration recently released a final rule for CCDF that helps lower costs for families, improve payments for teachers, increase options for families, and more efficiently processes enrollment.[628]
Head Start is an additional federal program through the U.S. Department of Health and Human Services that provides educational, social-emotional, health, and nutritional services to children up to age five and their families.[629] To support Head Start, the Biden administration released a proposed rule to improve program quality and support its workforce.[630] In Congress, there are bills like the 2023 Child Care Nutrition Enhancement Act that would increase reimbursement rates for meals for programs like Head Start through the federal Child and Adult Care Food Program.[631]

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

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

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

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

State funding and programs can also move the needle

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

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

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

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

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

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

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

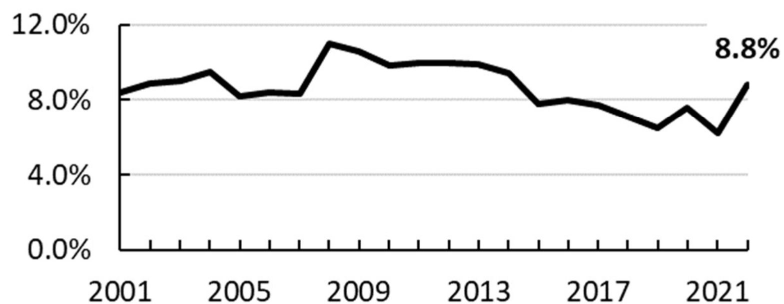
The U.S. Department of Agriculture (USDA) defines food-insecure households in 2022 as those that had difficulty at some time during the year providing sufficient food for all their family members due to a lack of resources.[651] The number of food-insecure households grew to 17 million—or 12.8%—of U.S.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

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

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

Children's Food Insecurity Is on the Rise

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



Source: U.S. Department of Agriculture.

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

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

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

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

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

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

A 2021 report found that the school meals program's human health and economic benefits are more than double the cost of the program.[663] Despite this, children in just 26.9% of food-insecure households received free or reduced-price school meals in 2022.[664]

Several federal government programs support student nutrition

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

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

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

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

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

The Biden administration announced that nutrition standards for school meals would be updated to gradually reduce added sugars beginning in fall 2025.[668] Additionally, the Healthy Meals Help Kids Learn Act introduced by JEC Chairman Heinrich would increase school meal reimbursement levels.[669] A second bill introduced by Senators Heinrich, Sanders, and Gillibrand—the Universal School Meals Program Act—would make the program universal, saving families from having to navigate the burdensome application process and saving states money, while ensuring every student has access to a nutritional school lunch.[670,671]

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

Nutrition programs are good for students and the broader economy

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

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

School infrastructure investments are good for students and the environment

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

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

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

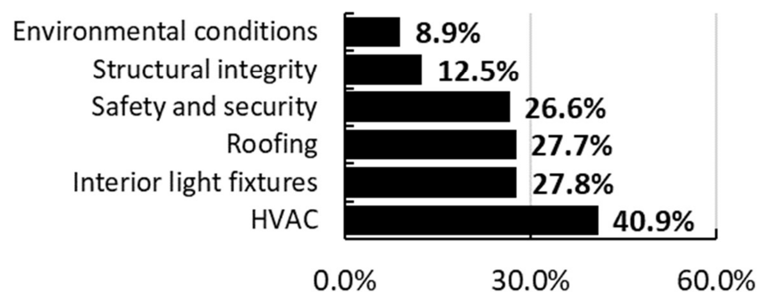
Improving U.S. school infrastructure is critical. A 2020 survey from the U.S. Government Accountability Office (GAO) found 41% of districts need to update or replace heating, ventilation, and air conditioning (HVAC) systems in at least half their schools.[677] The average age of U.S. schools is 49 years,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

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

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

HVAC Updates Are a Priority for School Districts

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



Source: U.S. Government Accountability Office.

Sustainability can and should be prioritized with school infrastructure modernization

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

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

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

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

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

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

Department of Energy (EPA) grant program called Renew America's Schools.[692,693]

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

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

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

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

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

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

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

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

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

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

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

homeownership, spur future bouts of unemployment, and result in poor physical health.[704,705,706,707,708]

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

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

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

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

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

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

Youth employment programs can reduce interaction with the criminal justice system

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

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

Reauthorizing and improving WIOA can support youth employment programs

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

In April 2024, House lawmakers overwhelmingly passed H.R. 6655, A Stronger Workforce for America Act.[723] The bill would reauthorize WIOA, provide job training, and connect Americans with good paying jobs. Meanwhile, legislators in the Senate Committee on Health, Education, Labor and Pensions (HELP) are writing their own legislation and are expected to release bill text near the end of spring 2024.[724]

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

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

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

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

CHAPTER 6: SUPPORTING WORKERS AND TAKING ON CORPORATE POWER

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

Democrats are taking on corporate greed and fighting for American families

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

price increases and remained above normal levels through 2022.[739] The rise in profits was greatest for the largest companies, whose margins surged and remained high following April 2020.[740]

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

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

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

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

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

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

Consolidation is especially harmful when it drives up the costs of essential goods like food and diapers.[753] In these cases, families have no choice but to buy these everyday necessities, even as higher prices are forced on them. As of 2018, just four firms controlled 55-85% of the U.S. market for poultry, pork, and beef—giving them significant power over both consumer prices and the prices that ranchers and farmers are paid for their products. Meat price increases alone accounted for half of the increase in food prices at places like grocery stores between December 2020 and September 2021.[754]

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

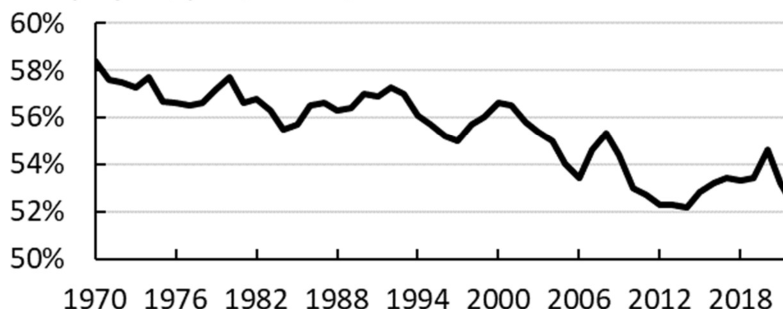
been more frequently experimenting with how much people are willing to pay for goods, pushing up prices as much as they can while monitoring sales data to maintain higher profits.[757] This is particularly punishing on families buying products in sectors where consumers have only a small number of large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

Increased corporate concentration has also harmed workers

As corporate concentration has increased over the last several decades, workers have received a shrinking share of overall income. Between 1978 and 2021, the average worker's compensation grew by just 18.1%, while CEO compensation grew by 1,460%. In 1965, the ratio of CEO-to-typical worker compensation was 20-to-1.[758] By 2021, it stood at a shocking 399-to-1. Workers' output per hour has grown more than four times as much as pay since the late 1970s, but workers' share of national income has steadily declined.[759]

The Labor Share of Income Has Declined

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Registered apprenticeships have benefits for workers and employers

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Restricting legal immigration hurts the U.S. economy

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

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

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

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

The immigrant share of the labor force reached a record high of 18.6% in 2023, according to an Economic Policy Institute analysis.[855] Immigration rates fell under the Trump administration and because of the COVID-19 pandemic, but data show that immigrants helped fill job openings earlier in the pandemic and helped sustain continued job growth in 2022 and 2023. Between January 2020 and May 2024, the number of foreign-born workers grew by 14%, while the number of native-born workers grew by less than 1%.[856,857] Immigrants have played an outsized role in the expansion of the labor force since 2019.[858] Without immigration, the U.S. labor supply would have decreased by 1.2 million people since 2019.[859] Instead, immigration helped expand the labor supply by two million people.[860]

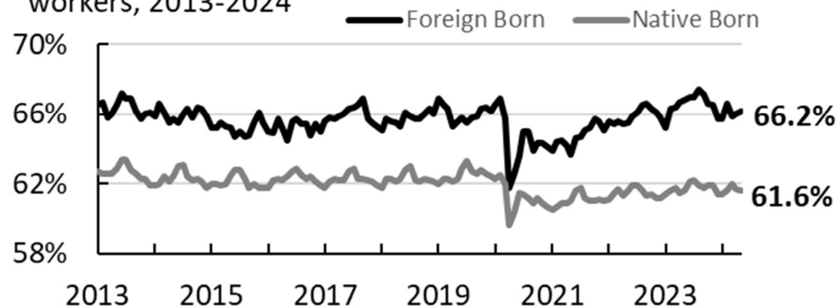
Recent estimates from the Congressional Budget Office approximate that net migration in calendar year 2023 was 3.3 million people—much higher than previously projected and well above the average of 900,000 people per year from 2010 to 2019.[861] In an analysis of these updated estimates, the Hamilton Project projects that the recent uptick contributed $48 billion to personal income and $46 billion to consumer spending in 2023. These estimates are expected to surge in 2024 when immigration will be directly responsible for $76 billion in personal income and $73 billion in consumer spending.[862] Other research suggests that immigration is responsible for at least a fifth of the 8.2% real GDP growth since the end of 2019.[863] As slower population growth and an aging population reduce overall labor force participation, Congress and the Biden administration should implement thoughtful, effective, and humane immigration policy to grow the labor force.[864,865]

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

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

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

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



Source: Bureau of Labor Statistics

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

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

Immigrants are more likely to start businesses and boost job growth

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

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

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

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

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

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

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

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

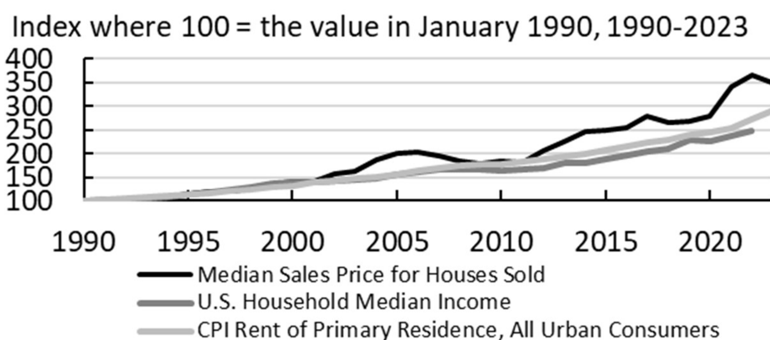
A strong U.S. middle class depends on families having the opportunity to buy a home, build wealth, and pass it on to the next generation. Moreover, research has shown that when low-income families move to stable homes in neighborhoods with a range of family incomes, their young children's future earnings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

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

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

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

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



Source: Census Bureau, U.S. Department of Housing and Urban Development, and Bureau of Labor Statistics
Note: January 2023 data for median household income are not yet available.

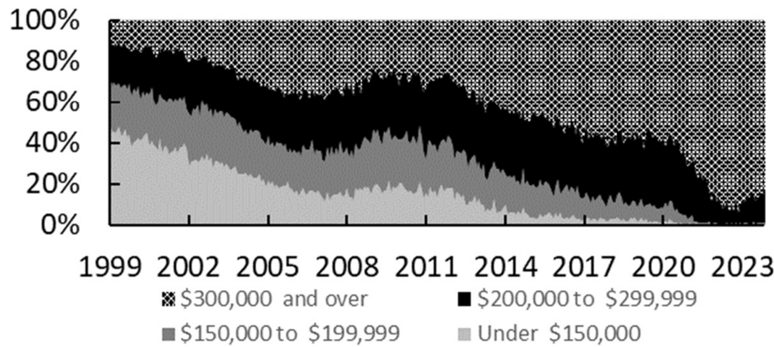
Removing barriers to housing supply can enhance affordability

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

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

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

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



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

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

The housing shortage is impacting affordability for renters and prospective homeowners alike. For example, in 2022 those earning at or below U.S. median income could only afford to own 20% of all homes on the market, down from about 50% in in 2016.[894] Additionally, as the Council of Economic Advisers wrote in 2021, "across the country, more than 10 million renters (one in four) pay more than half of their income on rent, and nearly half (47%) spend over the recommended 30% of their income on rent and utilities."[895] Research has shown that an increase in supply of housing stock can alleviate this upward pressure on home prices and help ensure that more affordable options are available to average Americans.[896]

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

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

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

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

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

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

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

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

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

Land use restrictions limit housing choice and economic freedom

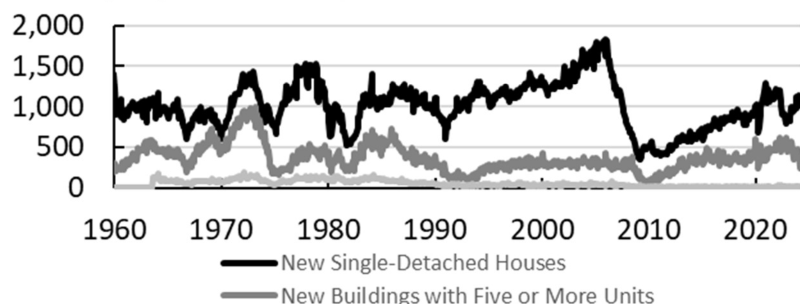
While increasing housing stock can help relieve the affordability crisis, zoning and land use regulations that mandate how land can be developed often actively prevent much-needed new housing construction. [928] Many of these laws, which are implemented at the local or state level, directly restrict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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

H.B. 2001's passage, 77% of land in Oregon zoned for residential housing was restricted to single-detached houses.[936] The state legislature will also be providing funding to assist localities in implementing the new zoning regulations to align with H.B. 2001.[937] Governor Kotek has previously emphasized the impact of the law will be gradual, taking place over up to 20 years.[938]

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

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

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

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

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

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

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

New models for financing can help increase affordable housing construction

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

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

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

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

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

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

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

New Mexico: Investing in local affordable housing trust funds

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

Maine: Enhancing affordability in rural areas

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

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

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

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

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

As interest rates fell and rents rose during the pandemic, investors who already owned three or more homes began to purchase an increasing share of all homes being sold. In early 2022, monthly single-family home purchases by investors reached 28% of single-family home sales, well above pre-pandemic rates of around 16%.[986] In mid-2023 the share of investor purchases remained high, at between 26.8% and 28% from July to September 2023.[987] Meanwhile the share of purchases made by owner occupants dipped below the pre-pandemic norm.[988]

Among all investors, those that own 3 to 99 properties purchased the largest fraction of single-family homes on the market in 2023.[989] For example, in the third quarter of that year, these investors were responsible for about 80 percent of all investor purchases described above. However, "institutional" or "mega" investors, who own 1,000 properties or more, have also increased their share since the pandemic. Institutional investor purchases of single-family homes remained at 1% of total annual purchases between 2017 and 2019 but tripled to 3% in 2021.[990]

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

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

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

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

The growing use of all-cash purchases, which investors or wealthier homebuyers can use when buying a home, can also make it increasingly difficult for median-income and first-time homebuyers to compete in the housing market. A 2023 report from Redfin, which focused on the 40 most populous metropolitan areas in the United States, found that cash purchases accounted for 33.4% of all home acquisitions made in April 2023, part of an increasing trend in such purchases since mid-2020.[996] This marked the highest monthly share of cash purchases in the market since 2014.[997]

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

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

First-time homebuyers, and those purchasing their primary residence, are unlikely to be all-cash buyers. In April 2021, only 6% of first-time buyers bought their home using only cash, according to an NAR survey.[1001] In that same month, only about 15% of primary residence buyers had bought their home using all cash.[1002] Cash buyers also tend to be wealthier and older than the typical buyers depending on mortgages for their home purchase.[1003] In 2022, the share of all-cash, primary residence "repeat buyers"—or those who are not buying a home for the first time—rose to 27%, up from 17% in 2021.[1004] Additionally, whether or not a homebuyer is using cash, prior homeownership can facilitate more competitive offers on homes. An NAR report also found that the share of "repeat buyers" was 68% of all buyers in November 2023, above the long-run average since 1981 of 62%.[1005]

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

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

Harmful tax advantages that incentivize investor purchase of single-family homes can further limit housing supply and block first-time and middle-class homebuyers from owning a home. For example, component depreciation—also known as cost segregation—allows investors to separate a large asset into certain component parts when determining the extent to which the asset has depreciated.[1006] While the practice of separately depreciating structural components like walls and roofs for tax purposes ended in the 1980s, investors can still apply this approach to non-structural components and record a depreciation that is more rapid than the recorded depreciation of the overall home.[1007,1008,1009] In contrast, homeowners cannot take these deductions on owner-occupied homes.[1010] The Biden administration has proposed reforms to this investor loophole, which are anticipated to generate $7.3 billion in cumulative federal revenues from fiscal years 2025 to 2034.[1011]

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

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

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

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

Through the early and mid-1970s, HUD's budget made up around 7% of the federal government's budget authority. However, that experienced a sharp drop from 1979 through the early 1980s, hitting a low of 1.9% of the federal budget by 1983. After a brief recovery in 1985 (reaching about 3% of the budget), HUD's fraction of the budget once again fell, and hovered between 1% and 2% of the total federal budget from the late 1980s up until 2023.[1017]

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

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

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

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

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

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

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

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

housing stock across the country by at least 20,000 units.[1036,1037,1038]

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

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

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

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

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

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

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

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

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VIEWS OF VICE CHAIRMAN DAVID SCHWEIKERT

In his letter transmitting the 2024 Economic Report of the President to Congress (henceforth the *Report*), President Biden declared that his economic agenda has brought "transformational progress" by rebuilding the United States' economy "from the middle out and the bottom up" after the COVID-19 pandemic wreaked havoc on the nation.

The President boasted that he would cut the deficit by $1 trillion, signed into law the Orwellian-named Inflation Reduction Act, and canceled hundreds of billions of dollars in student loan debt.

But the economic reality facing the American people is fundamentally different from what President Biden attempted to present in the *Report*. All is not well with the U.S. economy, and hardworking families are being left behind while future generations are saddled with crushing debt.

Since January 2021, the total national debt has increased by more than $6.8 trillion. More than 53 percent of that debt has been added since President Biden declared the COVID-19 pandemic over during a CBS News interview in September 2022.

We have borrowed nearly $100,000 every second over the past year. The national debt has increased by more than $1.4 trillion this fiscal year, and total FY2024 net borrowing will likely be between $2.2 and $2.5 trillion. The national debt will likely surpass $35 trillion before the end of FY2024, and gross interest spending on the debt is projected to exceed $1.1 trillion.

To make matters worse, the 2024 Social Security Trustees Report estimated that the Old-Age and Survivors Insurance (OASI) Trust

Fund will become insolvent by FY2033, leading to an automatic 21 percent cut to retirement benefits. This would cause the senior poverty rate to more than double from 1.5 percent to 3.3 percent. Millions of seniors are counting on us to save their earned benefits.

The Biden Administration has turned a blind eye to the nation's debt crisis, injecting trillions in reckless spending that turbocharged inflation to a four-decade high. As a result, wage growth has not kept pace, and the purchasing power of the dollar has fallen by nearly 20 percent since President Biden took office. It is crystal clear—hardworking Americans are feeling squeezed and are struggling to provide for their families because of this Administration's impractical, demand-side economic policies. According to the JEC Republicans State Inflation Tracker, to maintain the same standard of living they had in January 2021, the typical household needs to spend an additional $1,000 each month. This will be the first generation to be poorer than their parents.

The U.S. Congress Joint Economic Committee plays a pivotal role each year in responding to the Economic Report of the President. The Biden Administration's policy choices outlined in the *Report* have obstructed economic growth, exacerbated inflation, and driven up interest costs on the debt, exacerbating the nation's debt crisis.

The Republican section of the 2024 Joint Economic Report (henceforth the *Response*) delivers its findings and recommendations in five chapters.

Chapter 1 ("Failures in Economic Policy") reviews the nation's fiscal problems and dissects the Biden Administration's policy choices over the past year, which have propelled deficit growth and caused inflation to persist well past its peak in 2022. The

FY2023 deficit was $1.7 trillion—the third highest on record—despite COVID-19 being in the rearview mirror. These higher annual deficits are projected to continue over the next decade and bring the publicly held debt-to-GDP ratio from 99 percent in 2024 to 116 percent by 2034. This deficit growth can largely be attributed to rising interest costs on the debt as the Federal Reserve continues to hold interest rates steady between 5.25 and 5.50 percent—the highest in two decades—because of the difficulty in taming inflation.

Chapter 2 ("Demographics and the Deficit") explores the rapidly changing demographics of the United States as more Americans retire and begin receiving Social Security and Medicare benefits. Since 2021, the combined OASI and DI Trust Fund reserves have begun to decrease because the benefits paid out exceed the income received from payroll taxes. In fact, the proportion of the population aged 65 and older has more than doubled from 6.8 percent in 1940 to 17.3 percent in 2022. This Chapter aims to address the trust fund depletion by encouraging policies that address demographic trends, like removing barriers to family formation, rejuvenating prime-age labor force participation, and attracting high-skilled immigration to increase economic growth and put our retirement programs on a sustainable fiscal path.

Chapter 3 ("Tax Increases Harm Growth") explains that President Biden's tax proposals would be detrimental to the U.S. economy and constitute a harmful strategy for balancing the long-run Federal budget. The President has repeatedly targeted wealthy individuals and corporations to raise revenue to solve the nation's pressing fiscal problems. This Chapter presents compelling arguments against the Left's "tax the rich" approach by proving that such large tax increases would severely hamper economic

growth and exacerbate America's fiscal crisis while raising only a fraction of the tax receipts necessary.

Chapter 4 ("Reaching Fiscal Solutions Through Healthcare Innovation") builds off our findings in the 2023 *Response* which concluded that obesity and obesity-related diseases caused an average of $5,155 in excess medical costs per person who suffers from obesity, amounting to $520 billion in total excess healthcare costs in 2023 alone. After updating our projections, we now estimate that obesity will result in $8.2 to $9.1 trillion in excess medical expenditures over the next ten years. I have long argued one of the most moral things we can do as a society is to curb obesity through healthcare innovation. By making our fellow Americans healthier, we can vastly improve their quality of life, and, in turn, help solve the nation's fiscal challenges so that future generations are not left behind.

Chapter 5 ("The Role of Artificial Intelligence in Governance") analyzes the potential benefits to governance, economic growth, and our fiscal situation that one of the most revolutionary technological innovations of our generation, artificial intelligence (AI), can have. AI will increase labor productivity, raising output and boosting economic growth. Its integration into government administration will minimize waste and improve the responsiveness and efficiency of government services, which will reduce outlays without necessitating legislative changes. Finally, AI can be used to quickly analyze regulatory text, improving the efficacy of existing proposals for smart regulatory review—further accelerating economic growth. The potential for both faster, sustained economic growth and a reduction in outlays will help stabilize the debt-to-GDP ratio and dramatically improve the nation's fiscal trajectory.

America’s fiscal health is at a critical juncture. The dramatic rise in America's national debt is a crisis that can no longer be ignored. The challenge before us is neither Republican nor Democrat—it is our moral obligation to ensure American families are not left behind. Our economic future hangs in the balance, and my brothers and sisters in Congress hold the keys to determine which path we choose. We can either behave like adults and choose the path of fiscal responsibility or continue our partisan gamesmanship that will put the American dream further out of reach for future generations.

It does not matter what party one belongs to, we should all want a healthier population, strong and secure social safety net programs, and a robust and flourishing economy.

Our time to act is now.

CHAPTER 1: FAILURES IN ECONOMIC POLICY

The Fiscal Problem

According to the Congressional Budget Office (CBO), the FY2023 deficit was $1.7 trillion, the third highest level on record, only surpassed in FY2020 and FY2021, which were excessively large due to the significant fiscal stimulus in response to the COVID-19 pandemic. This was over two times the average annual deficit between FY2013 and FY2019 and ten times higher than the average annual deficit between FY2000 and FY2007, the two other typical macroeconomic periods of this century.[1]

This level of deficit spending during a time of peace and economic expansion is unprecedented and is not expected to slow soon. Annual deficits are expected to accelerate considerably over the next ten years, surpassing $2.5 trillion in FY2034, according to CBO.[2] Persistent deficits are projected to raise the debt-to-GDP ratio from 99 percent in 2024 to 116 percent by 2034. While much of the recent debate has focused on discretionary spending, mandatory programs account for a larger share of total spending. Social Security, Medicare, and Medicaid accounted for 48 percent of total government spending in FY2023.[3] Overall nominal

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[1] Congressional Budget Office (CBO), *The Budget and Economic Outlook: 2024 to 2034* (February 2024): Table 1, https://www.cbo.gov/system/files/2024-02/51134-2024-02-Historical-Budget-Data.xlsx.

[2] CBO, *The Budget and Economic Outlook: 2024 to 2034* (February 2024): Table 1-1, https://www.cbo.gov/system/files/2024-02/51118-2024-02-Budget-Projections.xlsx.

[3] In FY2023, Social Security outlays were $1,348 billion, Medicare outlays were $1,009 billion, Medicaid outlays were $616 billion, and total outlays were $6,135 billion: ($1,348 + $1,009 + $616) / ($6,135) * 100 = 48%. CBO, *The Budget and Economic Outlook: 2024 to 2034*, Table 1-4 & Table 1-1, https://www.cbo.gov/system/files/2024-02/51118-2024-02-Budget-Projections.xlsx.

spending has risen 184 percent over the past 20 years, and in FY2023, receipts (government revenue) only accounted for 72 percent of total government outlays.[4] These trends are only exacerbated by demographic headwinds, as discussed in Chapter 2 of this *Response.*

Furthermore, rising interest costs on the debt are propelling deficit growth. The decline in real interest rates over the past several decades, which brought the average nominal interest rate on the debt to levels at or below 2.5 percent between 2010 and 2022, has reversed.[5] In response to the spike in inflation observed in 2021 and 2022, the Federal Reserve raised interest rates. The result has been an increase in interest costs, with net interest payments on the debt nearly doubling over the past three fiscal years, growing from $352 billion in FY2021 to $658 billion in FY2023.[6] Because of the rise in interest rates and the growing debt, by the end of this

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[4] In FY2003 outlays were $2,159,899 million, and in FY2023 outlays were $6,134,507 million. Office of Management and Budget, "Table 1.1 – Summary of Receipts, Outlays, and Surpluses or Deficits: 1789-2029," Historical Tables, March 2024, https://www.whitehouse.gov/wp-content/uploads/2024/03/hist01z1_fy2025.xlsx; U.S. Department of the Treasury, "Monthly Treasury Statement," (September 2023), https://www.fiscal.treasury.gov/files/reports-statements/mts/mts0923.pdf; CBO, *The Budget and Economic Outlook*, Table 1-1; in FY2023, revenues were $4,439 billion and outlays were $6,135 billion: ($4,439 / $6,135) * 100 = 72%; CBO, *The Budget and Economic Outlook: 2024 to 2034*, Table 1-1.

[5] Kenneth S. Rogoff, Barbara Rossi and Paul Schmelzing, "Long-Run Trends in Long-Maturity Real Rates 1311-2021," NBER Working Paper no. 30475 (September 2022), https://doi.org/10.3386/w30475; U.S. Department of the Treasury, "Average Interest Rates on U.S. Treasury Securities," FiscalData, https://fiscaldata.treasury.gov/datasets/average-interest-rates-treasury-securities/average-interest-rates-on-u-s-treasury-securities.

[6] OMB, "Table 6.1 – Composition of Outlays: 1940-2029," Historical Tables, March 2024, https://www.whitehouse.gov/wp-content/uploads/2024/03/hist06z1_fy2025.xlsx.

fiscal year net interest costs as a share of outlays will have more than doubled since 2017, growing to be larger than the defense budget.[7] By FY2026, net interest payments are expected to exceed $1 trillion.[8] Gross interest payments will surpass $1 trillion this fiscal year.[9] A series of poor Treasury auctions over the past year following an acceleration in the number of securities being auctioned have raised concerns that demand for Treasuries may be waning.[10] Declines in demand could drive up interest costs further and exacerbate our fiscal crisis.

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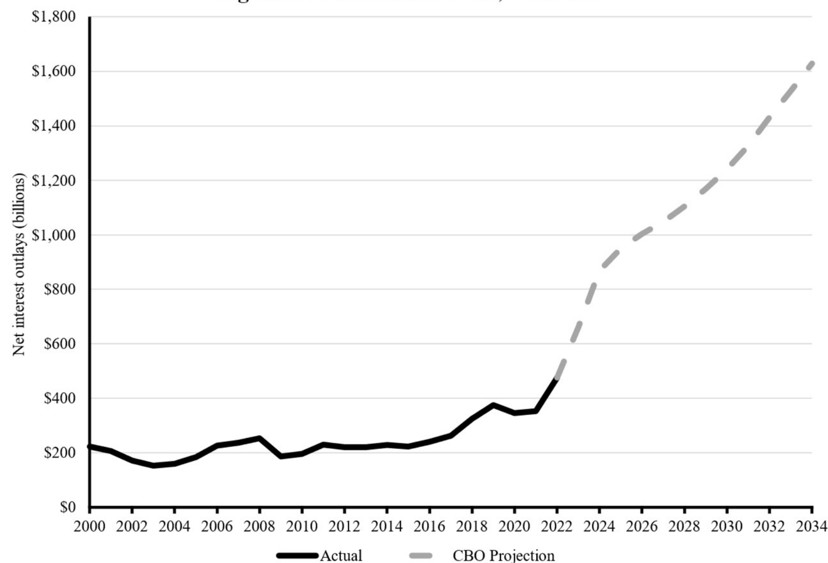
[7] CBO, Historical Budget Data, February 2024, Table 3, Outlays, https://www.cbo.gov/system/files/2024-02/51134-2024-02-Historical-Budget-Data.xlsx; CBO, *Budget and Economic Outlook: 2024 to 2034* (February 2024): Table 1-1, https://www.cbo.gov/system/files/2024-02/51118-2024-02-Budget-Projections.xlsx.

[8] In FY2026, CBO projects that net interest will be $1,005 billion. CBO, *The Budget and Economic Outlook: 2024 to 2034 By the Numbers*.

[9] Bureau of the Fiscal Service, *Monthly Treasury Statement* (U.S. Department of the Treasury, April 2024), Table 3, https://www.fiscal.treasury.gov/files/reports-statements/mts/mts0424.xlsx.

[10] Karishma Vanjani, "30-Year Treasuries Had an Ugly Auction. What's Behind the Weak Demand," *Barron's*, October 12, 2023, https://www.barrons.com/articles/treasuries-weakness-demand-a2bec374.

Figure 1-1: Net Interest Costs, 2000 -2034



Source: Office of Management and Budget (OMB); Congressional Budget Office (CBO), Feburary 2024

Framework to Bring Balance to the Fiscal Problem

Proposed in Chapter 2 of the *2023 Response* was a framework for U.S. debt stabilization. This framework draws on Olivier Blanchard's 2019 presidential address to the American Economic Association and considers the relationship between three macroeconomic variables presented below:[11]

1) the inflation-adjusted growth rate of the U.S. economy ("g");
2) the inflation-adjusted interest rate on U.S. Federal debt ("r"); and
3) the primary deficit of the U.S. Federal government ("p").

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[11] Olivier Blanchard, "Public Debt and Low Interest Rates," *American Economic Review* 109, no. 4 (2019): 1197-1229, https://www.aeaweb.org/articles?id=10.1257/aer.109.4.1197.

As a simplifying assumption, assume that r and g are constants, equal to their long-run averages. Where t denotes time, the growth of the debt-to-GDP ratio is given as follows.

$$\frac{\partial}{\partial t}\left(\frac{Debt_t}{GDP_t}\right) = (r - g) * \frac{Debt_t}{GDP_t} + \frac{p_t}{GDP_t}$$

Effectively, Blanchard's model proposes that, so long as real interest rates remain below the growth rate of the economy and deficits are sufficiently small, the U.S. can stabilize debt-to-GDP growth. Considering the increase in interest rates and the projected size of deficits, debt stabilization has become more precarious. While current CBO projections of inflation-adjusted interest rates remain smaller than the forecasted real growth rate of the economy, the gap has shrunk by 0.6 percentage points since prior to the COVID-19 pandemic and has even shrunk from 0.5 percentage points to 0.3 percentage points since last year's *Response*.[12] Given these circumstances, it is now even more pressing to grow the economy and reduce the primary deficit.

[12] Note: Assuming a 2 percent long-run inflation target. CBO, *The Budget and Economic Outlook*, Table 3 in Economic Projections, https://www.cbo.gov/system/files/2024-02/51135-2024-02-Economic-Projections.xlsx; CBO, *The Budget and Economic Outlook: 2024 to 2034*, Table 1-3; CBO, *The Budget and Economic Outlook: 2020 to 2030* (January 2020): Table 1-2, https://www.cbo.gov/system/files/2020-01/51118-2020-01-budgetprojections_0.xlsx; CBO, *The Budget and Economic Outlook: 2020 to* 2030, Table 3 in Economic Projections, https://www.cbo.gov/system/files/2020-01/51135-2020-01-economicprojections_0.xlsx; Joint Economic Committee (JEC) Republicans, *Republican Response to the Economic Report of the President* (U.S. Congress Joint Economic Committee, 2023): 192, https://sen.gov/LVQYY.

Box 1-1: Debt Threshold

Research suggests that a high debt-to-GDP ratio hampers long-run economic growth through a variety of channels. These include an erosion of consumer confidence, increased interest rates, and crowding out of private investment.[13] Specifically, the CBO estimates that every additional dollar the Federal government borrows results in a 33 percent reduction in private investment, slowing economic growth.[14] The cornerstone study on the effect of the debt-to-GDP ratio on economic growth is by Carmen Reinhart and Kenneth Rogoff. By estimating average cross-country growth rates across time, they find that debt-to-GDP ratios above 90 percent correspond with an approximately 50 percent reduction in economic growth compared to countries with debt-to-GDP ratios between 60 and 90 percent.[15] Other research largely supports the premise that economic growth is slowed by higher debt-to-GDP ratios and that there exists a threshold around 90

[13] Committee for a Responsible Federal Budget, "CBO Outlines Negative Implications of High & Rising National Debt," August 17, 2023, https://www.crfb.org/blogs/cbo-outlines-negative-implications-high-rising-national-debt.

[14] Committee for a Responsible Federal Budget, "CBO's Alternative Long-Term Budget Projections."; Mark J. Warshawsky and John Mantus, "An Expanded and Updated Analysis of the Federal Debt's Effect on Interest Rates," *American Enterprise Institute*, September 22, 2022, https://www.aei.org/research-products/report/an-expanded-and-updated-analysis-of-the-federal-debts-effect-on-interest-rates/; Committee for a Responsible Federal Budget, "CBO's Alternative Long-Term Budget Projections," July 25, 2023, https://www.crfb.org/blogs/cbos-alternative-long-term-budget-projections.

[15] Carmen M. Reinhart and Kenneth S. Rogoff, "Growth in a Time of Debt," *American Economic Review* 100, no. 2 (2010): 573–78. doi:10.1257/aer.100.2.573.

percent above which the impact on growth is magnified.[16] Because the U.S. is the global reserve currency this may not apply in exactly the same way as in other countries, however, the point stands that higher debt profiles slow economic growth.

As the debt grows, interest costs to service the debt also rise. The debt grows even faster so long as deficits remain static or increase. Depressed economic growth under these circumstances accelerates the growth of the debt-to-GDP ratio, further slowing growth and worsening the fiscal situation. Unaddressed, a vicious cycle can arise that raises the threat of a debt crisis.

The Biden Administration's policy choices over the past year—and since the beginning of the term—have diverged from the goal of growing the economy while minimizing debt and deficit growth. Instead of enacting policies that reduce regulatory burdens and encourage private-sector-fueled growth and investment, the Biden Administration has prioritized government-led, demand-side, spend-and-regulate policies akin to those in centrally planned economies. This Chapter reviews the Administration's economic policy actions and priorities.

Responding to the Biden Administration's Policy Framework

The Biden Administration has spent more as a share of GDP in the first three years of the term than any other three-year period since World War II (excluding the bipartisan response to the COVID-19 pandemic in 2020).[17] From the nearly $2 trillion American Rescue Plan (ARP), a partisan fiscal stimulus package which passed in March 2021, to the Inflation Reduction Act (IRA),

[16] Jack Salmon, "The Impact of Public Debt on Economic Growth," Cato Institute, 2021, https://www.cato.org/cato-journal/fall-2021/impact-public-debt-economic-growth.

[17] OMB, "Summary of Receipts," Table 1-1.

estimated to cost between $700 billion and $1.2 trillion, and the $1.2 trillion Infrastructure Investment and Jobs Act (IIJA), the Biden Administration has built a demand-side-dominant economic policy regime.[18]

Keynesian economic theory suggests that a rise in outlays creates a fiscal multiplier effect, whereby government spending can be a substitute for private spending in times of crisis—such as the COVID-19 pandemic or the 2007–2008 financial crisis—and the resulting increase in consumption drives employment, creating compounding positive effects. The Biden Administration's economic policy framework appears to rest on this theory. While research tends to find substantially smaller effects than would be suggested by Keynes, government spending in the short run does

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[18] In March 2023, researchers at Brookings estimated the IRA's fiscal cost to be $780 billion through 2031, and Goldman Sachs estimated $1.2 trillion. In April, University of Pennsylvania researchers estimated just over $1 trillion from 2023 to 2032. The White House, "Building a Clean Energy Economy: A Guidebook to the Inflation Reduction Act's Investments in Clean Energy and Climate Action," version 2 (January 2023), https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf; John Bistline, Neil R. Mehrotra, and Catherine Wolfram, "Economic implications of the climate provisions of the Inflation Reduction Act," *Brookings Institution*, March 29, 2023, https://www.brookings.edu/articles/economic-implications-of-the-climate-provisions-of-the-inflation-reduction-act/; Pipeline and Hazardous Materials Safety Administration, "Bipartisan Infrastructure Law (BIL) / Infrastructure Investment and Jobs Act (IIJA)," U.S. Department of Transportation, https://www.phmsa.dot.gov/legislative-mandates/bipartisan-infrastructure-law-bil-infrastructure-investment-and-jobs-act-iija; Michele Della Vigna, Yulia Bocharnikova, Brian Lee, and Neil Mehta, *Carbonomics: The third American energy revolution*, Goldman Sachs (March 2023), https://www.goldmansachs.com/intelligence/pages/gs-research/carbonomics-the-third-american-energy-revolution/report.pdf.

in fact lead to an increase in output.[19] Thus, the growth and tightening of the labor market following the pandemic was accelerated by the vast fiscal stimulus. As of April 2024, there have been 27 straight months with an unemployment rate below 4 percent, and quarterly real economic growth since January 2021 has averaged 3.0 percent.[20] The magnitude of fiscal support was questioned at the outset by prominent economists affiliated with former Democratic presidential administrations, including Lawerence Summers and Jason Furman, and time has shown that the record deficit spending came with a significant cost—the highest inflation in 40 years.[21]

As concluded in Chapter 1 of the 2023 *Response*, the substantial fiscal spending, aided by expansionary monetary policy, contributed to the increase in the price level that has been observed since President Biden took office, with year-over-year CPI inflation peaking at 9.1 percent in June 2022 and cumulative CPI inflation reaching 19.9 percent as of April 2024.[22] Research

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[19] Veronique de Rugy and Garett Jones, "Keynesian Stimulus: A Virtuous Semicircle?", Mercatus Center Working Paper (June 2, 2021), https://www.mercatus.org/research/policy-briefs/keynesian-stimulus-virtuous-semicircle.

[20] U.S. Bureau of Economic Analysis, "Real Gross Domestic Product [GDPC1]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/GDPC1.

[21] Lawrence H. Summers, "The inflation risk is real," Larry Summers blog, May 24, 2021, https://larrysummers.com/2021/05/24/the-inflation-risk-is-real/; Nancy Cook, "Obama, Biden Economists in Conflict on Inflation Jump, Spending," Bloomberg, May 12, 2021, https://www.bloomberg.com/news/articles/2021-05-12/obama-biden-economists-in-conflict-on-inflation-jump-spending; U.S. Bureau of Labor Statistics (BLS), "Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/CPIAUCSL.

[22] U.S. Bureau of Labor Statistics (BLS), "Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCNS],"

suggests that the ARP alone added 2.5 to 3.0 percentage points to U.S. inflation in 2021 and likely also exacerbated inflationary pressures in 2022 and 2023 (see Figure 1-2).[23]

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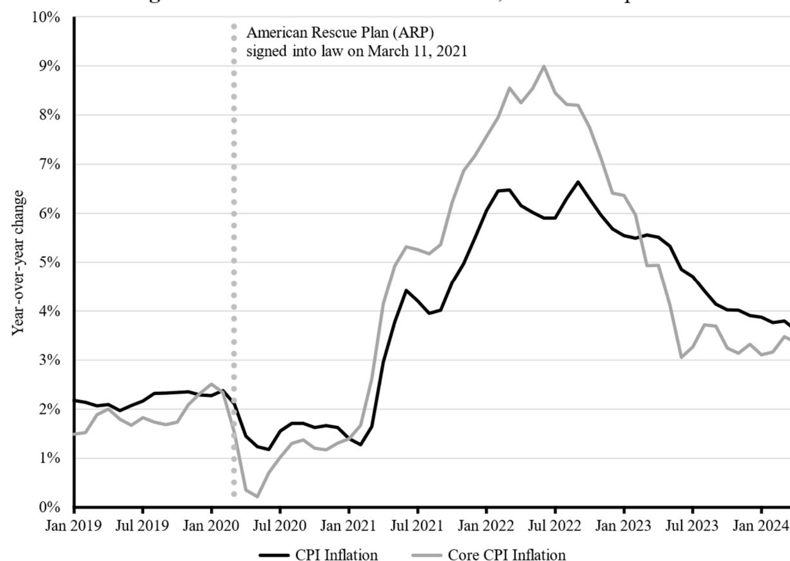
retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/CPIAUCNS; Julian di Giovanni, Șebnem Kalemli-Özcan, Alvaro Silva and Muhammed A. Yildirim, "Quantifying the Inflationary Impact of Fiscal Stimulus Under Supply Constraints," NBER Working Paper no. 30892 (January 2023), https://doi.org/10.3386/w30892; François de Soyres, Ana Maria Santacreu, and Henry Young, "Fiscal policy and excess inflation during Covid-19: a cross-country view," *FEDS Notes* (Board of Governors of the Federal Reserve System, 2022), https://doi.org/10.17016/2380-7172.3083; JEC Republicans, *Response*, 173.

[23] François de Soyres, Ana Maria Santacreu, and Henry Young, "Demand-Supply imbalance during the Covid-19 pandemic: The role of fiscal policy," International Finance Discussion Papers 1353 (Board of Governors of the Federal Reserve System, 2022), https://doi.org/10.17016/IFDP.2022.1353; Òscar Jordà, Celeste Liu, Fernanda Nechio, and Fabián Rivera-Reyes, "Why is U.S. Inflation Higher than in Other Countries?" Federal Reserve Bank of San Francisco Economic Letter, March 28, 2022, https://www.frbsf.org/wp-content/uploads/el2022-07.pdf; Michael R. Strain, "Yes, the Biden Stimulus Made Inflation Worse," *National Review*, February 10, 2022, https://www.nationalreview.com/corner/yes-thebiden-stimulus-made-inflation-worse/.

Figure 1-2: CPI and Core CPI Inflation, Jan 2020–Apr 2024



Source: U.S. Bureau of Labor Statistics (BLS), Consumer Price Index (CPI-U) (not seasonally adjusted)

The remaining share of inflation in 2021 was likely due to supply chain pressures that arose from the reopening of the economy.[24] If not for the Biden Administration beginning one of the largest regulatory expansions in history, which limited supply in the face of a fiscal surge, inflation would likely have been less severe, and some of the inflationary pressures may have abated more quickly. Since January 2021, a total of over $1.6 trillion in regulatory cost has been added.[25] As explained further in Chapter 5 of the *Response,* regulations, while warranted to an extent, impose compliance and administrative costs that reduce capital investment and innovation, total employment, and economic

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[24] Zheng Liu and Thuy Lan Nguyen, "Global Supply Chain Pressures and U.S. Inflation" Federal Reserve Bank of San Francisco Economic Letter, June 20, 2022, https://www.frbsf.org/wp-content/uploads/el2023-14.pdf.

[25] Dan Goldbeck, "May Closes With a Whimper," *American Action Forum*, June 3, 2024, https://www.americanactionforum.org/week-in-regulation/may-closes-with-a-whimper/.

dynamism.[26] Regulatory accumulation can also raise consumer prices and exacerbate inflationary pressures.[27]

In response to the inflation fueled in part by the Biden Administration's policies, the Federal Reserve began the most aggressive rate hiking cycle since the late 1970s.[28] Increasing interest rates raise the cost of borrowing and put downward pressure on current demand.[29] The impact has been widespread, from higher mortgage payments to larger interest costs for the

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[26] Michael Mandel and Diana G. Carew, "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform," Progressive Policy Institute Policy Memo, May 2013, https://www.progressivepolicy.org/wp-content/uploads/2013/05/05.2013-Mandel-Carew_Regulatory-Improvement-Commission_A-Politically-Viable-Approach-to-US-Regulatory-Reform.pdf; Dustin Chambers, Patrick McLaughlin, and Tyler Richards, "Regulation, Entrepreneurship, and Firm Size," Mercatus Center Working Paper (April 26, 2018), https://www.mercatus.org/research/working-papers/regulation-entrepreneurship-and-firm-size; James Bailey and Diana Thomas, "Regulating Away Competition: The Effect of Regulation on Entrepreneurship and Employment," Mercatus Center Working Paper (September 9, 2015), https://www.mercatus.org/students/research/journal-articles/regulating-away-competition-effect-regulation-entrepreneurship.

[27] Dustin Chambers and Courtney A. Collins, "How Do Federal Regulations Affect Consumer Prices? An Analysis of the Regressive Effects of Regulation," Mercatus Center Working Paper (February 23, 2016), https://www.mercatus.org/research/working-papers/how-do-federal-regulations-affect-consumer-prices-analysis-regressive.

[28] Board of Governors of the Federal Reserve System, "Federal Funds Effective Rate [FEDFUNDS]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/FEDFUNDS.

[29] Thorvaldur Gylfason, "Interest Rates, Inflation, and the Aggregate Consumption Function," *The Review of Economics and Statistics* 63, no. 2 (1981), 233-45, https://doi.org/10.2307/1924094.

Federal government. Inflation has since moderated but remains well above the Federal Reserve's long-run target.[30]

The *Report* notes supply-side reforms. However, the Administration's economic policy consists almost exclusively of demand-side, resource-allocation-distorting inflationary proposals, with limited supply-side policies.[31] When the Administration does propose supply-side reforms, they are often temporary or reactive. The temporary reduction in hourly restrictions for truck drivers illustrates this. To address pandemic-era supply chain issues and alleviate inflationary pressure, the Biden Administration temporarily eased driving hour restrictions on truck drivers.[32] The Administration could have instead sought to eliminate or greatly loosen these restrictions permanently to lower transport prices over the long term and make markets more responsive to fluctuations, but it instead sought only a temporary fix to mitigate the short-term effects.

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[30] BLS, "Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCNS]."

[31] Council of Economic Advisers (CEA), *Economic Report of the President* (The White House, 2024): 167, https://www.whitehouse.gov/wp-content/uploads/2024/03/ERP-2024.pdf; CEA, *Economic Report of the President*, 234.

[32] Federal Motor Carrier Safety Administration, "Extension of the Modified Emergency Declaration 2020-002 Under 49 CFR § 390.25," U.S. Department of Transportation, November 29, 2021, https://www.fmcsa.dot.gov/emergency/extension-modified-emergency-declaration-2020-002-under-49-cfr-ss-39025-november-29-2021; The White House, "Remarks by President Biden on the Nation's Supply Chains," December 1, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/01/remarks-by-president-biden-on-the-nations-supply-chains/.

Box 1-2: Biden Administration's Oil and Gas Policy

The Administration's policy on oil and gas production too speaks to its reactive supply-side policy framework. From the outset, its rhetoric and regulatory actions created policy uncertainty, likely raising costs for oil and gas production and refining firms. From issuing an Executive Order that revoked the Keystone XL pipeline, to pausing leases on Federal lands and offshore waters, to the implementation of a costly methane rule and reversing a Trump Administration Executive Order aimed at accelerating energy infrastructure projects, the Biden Administration has taken an oppositional stance to the oil and gas industry.[33] Then, as oil and gas prices rose in late 2021, surpassing $100 per barrel and $5 per gallon by the summer of 2022, respectively, instead of reversing course and reducing regulatory restrictions, President Biden authorized several releases from the Strategic Petroleum Reserve (SPR) in an ill-fated attempt to temporarily lower gas prices.[34] Research suggests that the 2022 unprecedentedly large SPR

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[33] JEC Republicans, "Supply and Demand Set Gas Prices, Not Corporate Greed," July 26, 2022, https://www.jec.senate.gov/public/_cache/files/fa3599ea-b1cc-4edf-805d-bd7c1a092210/supply-and-demand-set-gas-prices-not-corporate-greed.pdf.

[34] The White House, "President Biden Announces Release from the Strategic Petroleum Reserve As Part of Ongoing Efforts to Lower Prices and Address Lack of Supply Around the World," Press Release, November 23, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/23/president-biden-announces-release-from-the-strategic-petroleum-reserve-as-part-of-ongoing-efforts-to-lower-prices-and-address-lack-of-supply-around-the-world/; U.S. Energy Information Administration (EIA), "Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma [DCOILWTICO]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/DCOILWTICO; EIA, "US Regular All Formulations Gas Price [GASREGW]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/GASREGW.

drawdowns did not have a statistically significant impact on lowering prices.[35]

As evidenced, the Biden Administration has pursued a policy of fiscal excess and regulatory glut, while failing to pursue adequate supply-side solutions. Not coincidentally, inflation remains far above the Federal Reserve's target, notwithstanding notable interest rate hikes, and consumer sentiment remains below pre-pandemic levels.

Labor Market Policy

The Biden Administration—in large part due to its inflation-fueling fiscal excess—has overseen a strong labor market recovery from the pandemic. Over the past year, the labor market has remained robust, continuing the post-pandemic job trend that began in the previous Administration. In the face of rising interest rates intended to rein in inflation, there are now indications that the job market may be cooling.[36] Figure 1-3 displays the monthly nonfarm payroll jobs added each month as well as the three-month rolling average. Strong jobs numbers from January 2021 through mid-2022 have moderated, but overall job growth has been consistent over the past four years.

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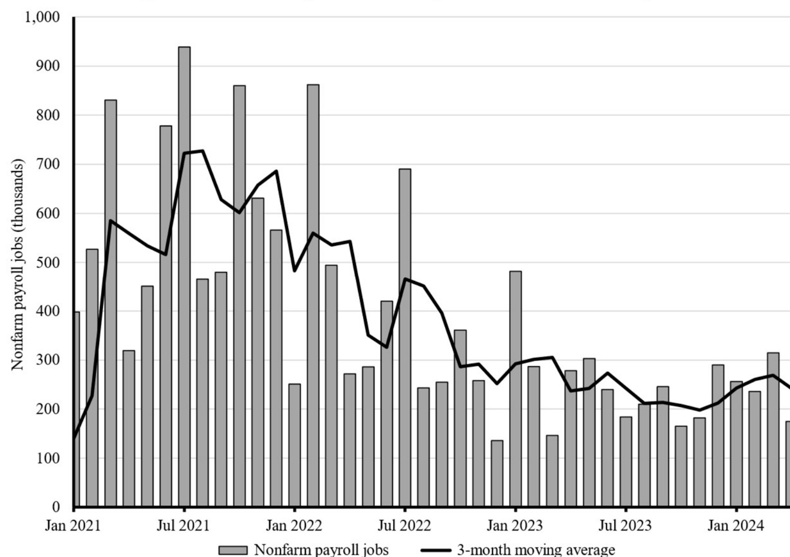
[35] EIA, "Weekly U.S. Ending Stocks of Crude Oil in SPR," https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WCSSTUS1&f=W; Noha Razek, Valentina Galvani, Surya Rajan, and Brian McQuinn, "Can U.S. strategic petroleum reserves calm a tight market exacerbated by the Russia–Ukraine conflict?", *Resources Policy* 86, Part B (2023), https://doi.org/10.1016/j.resourpol.2023.104062.

[36] BLS, "Unemployment rate inches up during 2023, labor force participation rises," Monthly Labor Review, May 2024, https://www.bls.gov/opub/mlr/2024/article/unemployment-rate-inches-up-during-2023-labor-force-participation-rises.htm.

Figure 1-3: Monthly Nonfarm Payroll Jobs since January 2021



Source: U.S. Bureau of Labor Statistics, April 2024 Employment Situation

Despite strong growth, many Americans remained on the sidelines for far too long after the pandemic. It took until February 2023 for prime-aged labor force participation to return to pre-pandemic highs.[37] The overall labor force participation rate has not recovered to pre-pandemic levels.[38] This slow recovery likely put upward pressure on inflation and depressed the pace of the post-pandemic economic rebound.

As expressed in Chapter 1 of the *Report*, the Biden Administration is particularly attentive to the concept of hysteresis, or the cost of not being at full employment to the supply side of the economy. If

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[37] BLS, "Labor Force Participation Rate - 25-54 Yrs. [LNS11300060]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/LNS11300060.

[38] BLS, "Labor Force Participation Rate [CIVPART]," retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CIVPART.

workers remain on the sidelines, they risk sacrificing productivity-enhancing experience that is associated with remaining gainfully employed. This can reduce overall productivity, negatively impacting the growth rate of the economy.[39] Unfortunately, their policy choices following the pandemic did not align with this concern and instead depressed the labor recovery. While the economy had largely recuperated from the pandemic recession by early 2021, the Biden Administration passed the ARP, which included an extension to the emergency unemployment benefits originally implemented in the Coronavirus Aid, Relief, and Economic Security (CARES) Act, passed in the depths of the COVID-19 recession in March 2020.[40] Research suggests that such policies depressed employment by keeping potential workers on the sidelines, hampering the recovery and potentially contributing unnecessarily to inflation.[41] Similarly, the Biden Administration proposed a change to the Child Tax Credit that was estimated to result in 1.5 million fewer workers in the labor force.[42] Furthermore, at the onset of the pandemic, work

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[39] CEA, *Economic Report of the President*, 48.

[40] Coronavirus Aid, Relief, and Economic Security Act, S. 3548, 116th Cong. (2020); The White House, "American Rescue Plan," https://www.whitehouse.gov/american-rescue-plan/.

[41] Bill Dupor, Iris Arbogast, "Employment Effects of Pandemic Emergency Unemployment Benefits: Incentives Matter," Federal Reserve Bank of St. Louis, August 4, 2022, https://www.stlouisfed.org/publications/regional-economist/2022/aug/employment-effects-pandemic-emergency-unemployment-benefits; Ben Bernanke and Olivier Blanchard, "What caused the US pandemic-era inflation?", Hutchins Center on Fiscal & Monetary Policy Working Paper (June 2023), https://fondazionecerm.it/wp-content/uploads/2023/09/What-caused-the-US-pandemic-era-inflation-.pdf.

[42] Kevin Corinth, Bruce Meyer, Matthew Stadnicki, and Derek Wu, "The Anti-Poverty, Targeting, and Labor Supply Effects of the Proposed Child Tax Credit Expansion," University of Chicago Becker Friedman Institute for Economics Working Paper no. 2021-115 (October 2021), https://doi.org/10.2139/ssrn.3938983.

requirements for the Supplemental Nutrition Assistance Program (SNAP)—which mandate that non-disabled recipients without children must work or volunteer 80 hours per month to receive benefits—were waived. The Administration did not reinstate the work requirements until May 2023, almost two years after the unemployment rate fell below 5 percent, likely keeping many workers disengaged from the labor force.[43]

Instead of pursuing policies that discourage work, the Administration should pursue the proposals set forth in Chapter 5 of last year's *Response*. These include occupational licensing reform, tax reform to allow for expensing of worker training, and allowing greater flexibility for independent and contract workers. These would increase both the supply and productivity of labor.[44] The result would be a faster growing economy with more, higher productivity workers which would improve the fiscal situation.

Housing Policy

Housing affordability has diminished because of the Biden Administration's policies. The excess fiscal stimulus it enacted led to elevated inflation, to which the Federal Reserve responded by raising the Federal Funds Rate from 0.0–0.25 percent to 5.25–5.5 percent since March 2022. This increase in interest rates contributed to pushing mortgage rates up from less than 3 percent in early 2021 to approximately 7 percent as of May 2024, reducing

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[43] Kevin Corinth, "It's Time to Link Work and Food Stamps Again," *Deseret News*, February 17, 2023, https://www.deseret.com/2023/2/17/23598056/food-stamps-work-requirements-worker-shortage/; BLS, "Unemployment Rate [UNRATE]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/UNRATE.

[44] JEC Republicans, *Response*, 93-114.

housing affordability.[45] It is estimated that the average household in the United States must spend $227 more per month on shelter costs than they did in January 2021.[46] Because this calculation includes rented housing, and rent prices are not as sensitive to interest rate fluctuations, this amount is much lower than the additional costs new homebuyers face. New homebuyers face the highest monthly mortgage payments in over 30 years.

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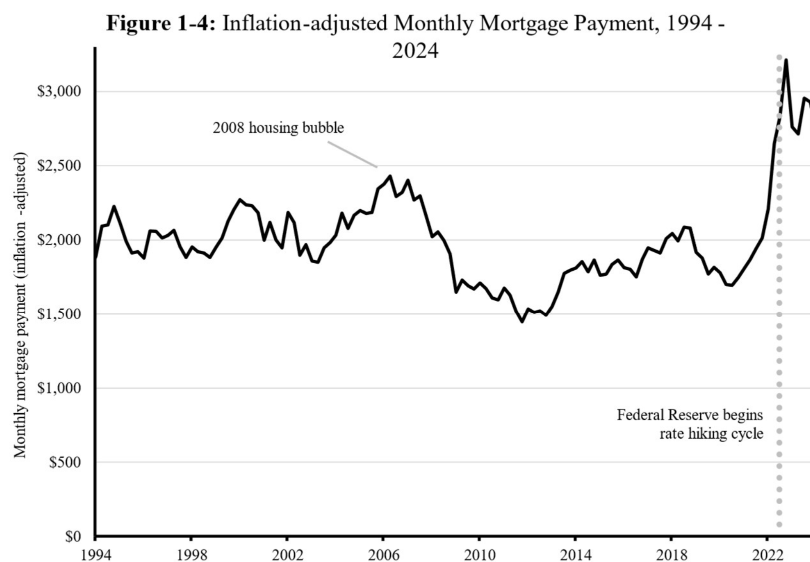
[45] Natalie Newton and James Vickery, "The Pandemic Mortgage Boom," Federal Reserve Bank of Philadelphia, 2022, https://www.philadelphiafed.org/-/media/frbp/assets/economy/articles/economic-insights/2022/q3-q4/eiq3q422-the-pandemic-mortgage-boom.pdf; Eric Milstein and David Wessel, "What did the Fed do in response to the COVID-19 crisis?," *Brookings*, January 2, 2024, https://www.brookings.edu/articles/fed-response-to-covid19/; Freddie Mac, "30-Year Fixed Rate Mortgage Average in the United States [MORTGAGE30US]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/MORTGAGE30US; Board of Governors of the Federal Reserve System, "Federal Funds Effective Rate [FEDFUNDS]."

[46] JEC Republicans, "JEC Republicans State Inflation Tracker," https://www.jec.senate.gov/public/index.cfm/republicans/state-inflation-tracker.

Figure 1-4: Inflation-adjusted Monthly Mortgage Payment, 1994 - 2024



Note: assumes a 20% down payment
Source: U.S. Census Bureau, "New Residential Sales, Median Sales Price of Houses Sold;"
Freddie Mac, "Primary Mortgage Market Survey"

While the Biden Administration's policies have contributed to rising housing unaffordability, its proposals to lower prices fail to address the root of the problem—supply—and may instead exacerbate it. It is estimated that regulation accounts for nearly a quarter of the cost of a new single-family home.[47] For multi-family units like apartment buildings and condominiums, regulations are estimated to account for 40.6 percent of development costs.[48] The proposals cited in the *Report* are largely demand-side and include

[47] Paul Emrath, "Government Regulation in the Price of a New Home: 2021," National Association of Home Builders, May 5, 2021, https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/special-studies/2021/special-study-government-regulation-in-the-price-of-a-new-home-may-2021.pdf.

[48] Paul Emrath, "Regulation: 40.6 Percent of the Cost of Multifamily Development," National Association of Home Builders, June 9, 2022, https://www.nahb.org/news-and-economics/press-releases/2022/06/new-research-shows-regulations-account-for-40-point-6-percent-of-apartment-development-costs.

many subsidies, such as a proposed mortgage payment relief tax credit for first-time homebuyers, subsidies for low-income housing construction, and block grants to state and local governments to fund affordable housing development, which if enacted could further push up housing prices.[49] Failure to address the underlying problem of housing availability risks creating a perpetual subsidy demand cycle. In housing, as in other areas, the Administration fails to adequately address supply.

The Federal government can pursue policies that would have a positive impact on supply without overstepping its legislative authority. In 2022, Senator Mike Lee introduced the HOUSES Act, which would authorize state and local governments to nominate tracts of land within their jurisdictions for conveyance by the U.S. Department of the Interior.[50] JEC Republican estimates suggest that an additional 4.7 million Americans would be able to afford an average home in their state under this bill.[51] Reforms to the Davis-Bacon Act could also increase supply. Federal rules provide that workers on Federal public works projects be paid prevailing wages. Labor should instead be paid at the rate that is agreed upon by worker and employer. Market-

[49] U.S. Census Bureau and U.S. Department of Housing and Urban Development, "Median Sales Price of Houses Sold for the United States [MSPUS]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/MSPUS; "Home Ownership Affordability Monitor," Federal Reserve Bank of Atlanta, https://www.atlantafed.org/center-for-housing-and-policy/data-and-tools/home-ownership-affordability-monitor.

[50] Helping Open Underutilized Space to Ensure Shelter Act of 2022, S. 4062, 117th Cong. (2022).

[51] JEC Republicans, "The HOUSES Act: Addressing the National Housing Shortage by Building on Federal Land," August 2022, https://www.jec.senate.gov/public/_cache/files/efdd0c37-af95-40cd-9125-e80f8a11504b/the-houses-act---addressing-the-national-housing-shortage-by-building-on-federal-land.pdf.

oriented rules make labor more competitive for Federally funded low-income housing construction projects, increasing supply.

Trade Policy

In the modern American economy, trade remains a vital tool to bolster national economic well-being. It is critical that the Administration remains committed to a policy that prioritizes American interests in the long term, without being sidetracked by short-term political motivations. The U.S. should maintain a policy goal of free trade while simultaneously addressing national security concerns. From an economic perspective, the case for free trade is unambiguous.

Free trade grows the economy and places downward pressure on consumer prices by enabling the most efficient allocation of resources. Subjecting domestic producers and consumers to global supply and demand pressures clears the world market at a lower price and results in a higher quantity of goods and services. Restrictions on trade distort consumer and producer surpluses, causing dead-weight losses in the economy.

Furthermore, keeping the domestic market as open as possible to global markets allows American firms to take advantage of lower average costs. Competition with global firms necessitates innovation, building an economy comprised of the most productive possible firms in each industry. Contrastingly, protectionist policies create an incentive structure whereby firms chase opportunities for government protection and rent seeking in protected industries over innovation to compete with imports, making American consumers worse off and reducing American dynamism in the long run.

The economic benefit due to expanded trade from 1950 to 2016 is estimated to be $2.1 trillion (in 2016 dollars), which translates to an increase in GDP per capita of approximately $7,000, or $18,000 per household.[52] American consumers gain from lower prices, and producers gain from access to the global market and cheaper intermediate goods.[53]

Arguments against free trade often cite negative distributional impacts on wages and employment, for instance by attributing job losses in the manufacturing sector to import competition. Employment in the manufacturing sector has been relatively stable over the past 85 years, while imports have risen drastically (see Figure 1-5).

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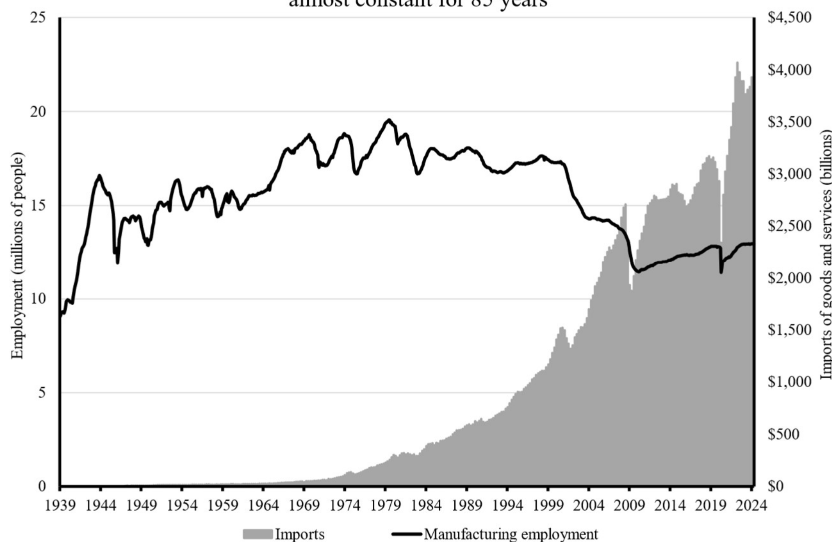
[52] Gary Clyde Hufbauer and Zhiyao Lu, "The Payoff to America from Globalization: A Fresh Look with a Focus on Costs to Workers," Peterson Institute for International Economics Policy Brief, May 2017, https://www.piie.com/publications/policy-briefs/payoff-america-globalization-fresh-look-focus-costs-workers.

[53] Scott Lincicome and Alfredo Carrillo Obregon, "The (Updated) Case for Free Trade," Cato Institute Policy Analysis no. 925, April 19, 2022, https://www.cato.org/policy-analysis/updated-case-free-trade.

Figure 1-5: Employment in manufacturing has remained almost constant for 85 years



Source: U.S. Bureau of Economic Analysis; U.S. Bureau of Labor Statistics

The Heckscher-Ohlin trade model suggests that some job losses would be expected in industries that intensively use scarce factors of production.[54] These goods are most likely to face substantial import competition from countries where that factor is abundant. Though this likely explains some job losses in American manufacturing, the data suggests that the impact is not nearly large enough to wholly explain the persistent stagnation. Rather, significant improvements in technology have increased manufacturing productivity and the marginal productivity of labor, therefore the manufacturing sector can employ fewer people to produce greater output.[55]

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[54] Bertil Ohlin and Eli F. Heckscher, *Heckscher-Ohlin Trade Theory*, translated by Henry Flam and M. June Flanders (MIT Press, 1991).

[55] Stephen J. Rose, "Do Not Blame Trade for the Decline in Manufacturing Jobs," Center for Strategic & International Studies Report, October 4, 2021, https://www.csis.org/analysis/do-not-blame-trade-decline-manufacturing-jobs.

Much of the Biden Administration's pushback against free trade is predicated on the difficulty for labor to move across sectors.[56] However, the appropriate response to reduce the small and concentrated downside of trade is to improve labor mobility and the ease of doing business. The best solutions are domestic supply-side approaches, while anti-trade policies aimed at protecting specific groups risk instilling large losses that are borne nationwide.

The Administration has unfortunately taken steps to increase barriers to trade by raising tariffs on steel, aluminum, semiconductors, electric vehicles, and battery components.[57] Protectionist measures create market distortions and inefficiencies that compromise American growth and overall welfare. In industries that are already unable to meet high demand with current supply, protectionist measures further inhibit supply while many of the Administration's new policies stimulate demand.[58] This interaction creates intense upward price pressure, effectively eroding the purchasing power of the Administration's spending. Moreover, these polices produce incentives for rent seeking,

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[56] CEA, *Economic Report of the President*, 207.

[57] The White House, "FACT SHEET: President Biden Takes Action to Protect American Workers and Businesses from China's Unfair Trade Practices," May 14, 2024, https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/14/fact-sheet-president-biden-takes-action-to-protect-american-workers-and-businesses-from-chinas-unfair-trade-practices/.

[58] Anna B. Mikulska and Michael D. Maher, "Red Light, Green Deal, Yellow Light: Biden's Energy Roadmap," Rice University's Baker Institute for Public Policy Center for Energy Studies Issue Brief, October 5, 2022, https://www.bakerinstitute.org/research/red-light-green-deal-yellow-light-bidens-energy-roadmap.

which disincentivizes innovation and further raises prices in an already inflationary environment.[59]

Instead, the Administration should avoid a slide into further protectionism by considering a supply-side approach that improves labor mobility. As discussed earlier in this Chapter, the Administration should reform occupational licensing and other labor-inhibiting regulations to facilitate mobility across geographies and segments of the economy. To reduce average costs, it should also review and modernize regulations. For example, environmental regulations are found to stifle investment and productivity in the manufacturing sector.[60] The Administration should evaluate alternatives to current regulatory frameworks that utilize emerging technologies.

Furthermore, states and municipalities should take action to increase the supply of housing. Relaxed zoning restrictions better allow low-skilled workers to geographically sort into areas with higher marginal labor productivity, increasing wages and decreasing regional inequality.[61]

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[59] Robert E. Baldwin, "Rent-Seeking and Trade Policy: An Industry Approach," NBER Working Paper no. 1499 (November 1984), https://doi.org/10.3386/w1499; Daniel Brou and Michele Ruta, "Rent-seeking, market structure, and growth," *The Scandinavian Journal of Economics* 115, no. 3 (2013): 878-901, https://doi.org/10.1111/sjoe.12014.

[60] Charles Dufour, Paul Lanoie, and Michel Patry, *Regulation and Productivity in the Quebec Manufacturing Sector* (Centre Interuniversitaire de Recherche en Analyse des Organisations, 1995); Michael Greenstone, John A. List, and Chad Syverson, "The Effects of Environmental Regulation on the Competitiveness of U.S. Manufacturing," NBER Working Paper no. 18392 (September 2012), https://doi.org/10.3386/w18392.

[61] Don Jayamaha, "Land-Use Restrictions: Implications for House Prices, Inequality, and Mobility" (New York University, 2020), https://donj26.github.io/donjayamaha.com/Jayamaha_JMP.pdf.

Domestic supply-side policies are the ultimate determinant of investment, growth, and industrial concentration. It is critical that the Administration not impede the ability of American firms to compete by implementing protectionist policies that hurt the American worker.

Clean Energy Policy

Given the precarious state of its fiscal affairs, policymakers should question whether the U.S. should deficit-finance expenditures—specifically, subsidies—to accelerate clean energy technologies, particularly if the result is slower economic growth or higher prices for consumers. Taking a demand-side approach by issuing tax credits or subsidizing select clean energy projects will be more costly and less efficient than reducing regulatory burdens. Already, the environmental tax credits in the IRA are forecasted to cost significantly more than originally projected. Prior to passage of the bill in August 2022, CBO projected they would cost nearly $400 billion over the 10-year budget window.[62] A revised forecast by the Joint Committee on Taxation projected that they would cost nearly $100 billion more than CBO's calculation.[63] Even more concerning, a private estimate from Goldman Sachs pins the 10-year cost of clean energy subsidies at $1.2 trillion.[64] While subsidizing investment may accelerate clean energy adoption, recent trends in greenhouse gas emissions (GHGs) from electricity production suggest a continued decline (see Figure 1-

[62] CBO, "Estimated Budgetary Effects of H.R. 5376, the Inflation Reduction Act of 2022," August 3, 2022, https://www.cbo.gov/publication/58366.

[63] The Joint Committee on Taxation, "Estimated Revenue Effects Of Division A, Title III Of H.R. 2811, The 'Limit, Save, Grow Act Of 2023,'" April 26, 2023, https://www.jct.gov/publications/2023/jcx-7-23/.

[64] Travis Fisher, "The Inflation Reduction Act's Energy Subsidies Are More Expensive Than You Think," Cato Institute, September 5, 2023, https://www.cato.org/blog/iras-energy-subsidies-are-more-expensive-you-think.

6), largely as a result of the organic transition that has occurred with the shift from coal to natural gas.

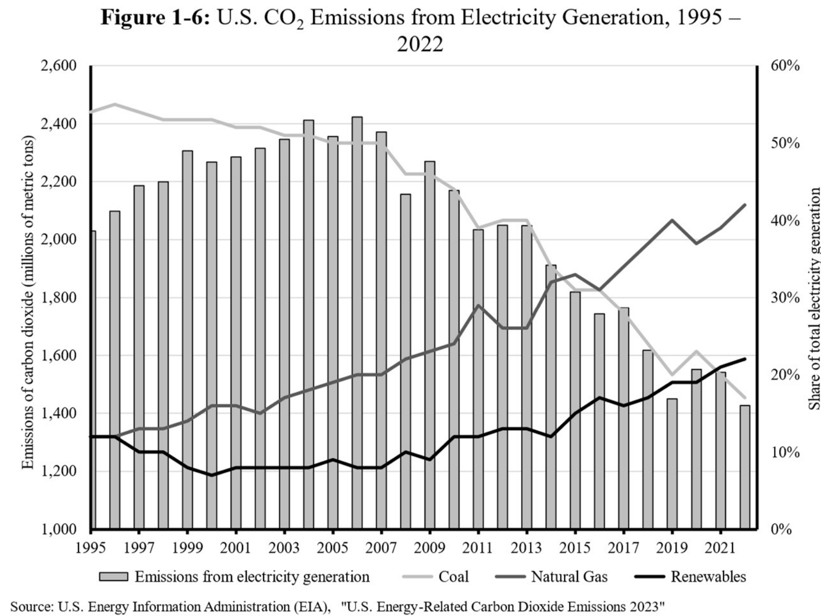

Figure 1-6: U.S. CO_2 Emissions from Electricity Generation, 1995 – 2022

Source: U.S. Energy Information Administration (EIA), "U.S. Energy-Related Carbon Dioxide Emissions 2023"

Natural gas is a cleaner source of energy than coal.[65] The increase in renewable energy as a share of total electrical power output began as emissions were already decreasing, mainly due to the decline in coal power. As there was already a clear reduction in GHGs, it is not unreasonable to question whether the significant Federal expenditures supporting clean energy infrastructure are worth the benefit in the current fiscal environment.

As the Biden Administration has spent extensively on clean energy, it has failed to reduce restrictions constraining supply that currently make such projects more difficult and costly. For example, in May 2024, it raised tariffs on solar imports from 25 to

[65] EIA, “Natural gas explained,” https://www.eia.gov/energyexplained/natural-gas/natural-gas-and-the-environment.php.

50 percent.[66] Increasing the price of solar panels inhibits their adoption by American consumers, while at the same time the Administration has taken steps to exacerbate demand for them using tax credits.[67] Furthermore, immediately after taking office, President Biden issued Executive Order 13990, which revoked many of the National Environmental Policy Act (NEPA) reforms implemented by the Trump Administration that were designed to reduce bureaucracy and wait times for permits and environmental impact statements.[68] The repealing of this policy could significantly inhibit clean energy projects. As of 2021, 42 percent of the Department of Energy's active NEPA projects requiring an environmental impact statement (EIS) were related to clean energy, transmission, or environmental conservation, while only 15 percent were related to fossil fuel projects. Moreover, the same study finds that 24 percent of Bureau of Land Management EISs were related to clean energy projects, while only 13 percent were for fossil fuels.[69]

While the Administration has recently proposed a replacement regulatory framework called NEPA Phase II, it faces bipartisan

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[66] The White House, "FACT SHEET: President Biden Takes Action to Protect American Workers and Businesses from China's Unfair Trade Practices," https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/14/fact-sheet-president-biden-takes-action-to-protect-american-workers-and-businesses-from-chinas-unfair-trade-practices/

[67] U.S. Environmental Protection Agency, "Summary of Inflation Reduction Act provisions related to renewable energy," https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy.

[68] Diane Katz, "Biden's Repeal of Permitting Reforms Hinders Infrastructure Improvements," The Heritage Foundation Report, August 29, 2022, https://www.heritage.org/government-regulation/report/bidens-repeal-permitting-reforms-hinders-infrastructure-improvements.

[69] Philip Rossetti, "*Addressing NEPA-Related Infrastructure Delays,"* R Street Institute, 2024, https://www.rstreet.org/wp-content/uploads/2021/07/FINAL_RSTREET234.pdf.

opposition due to its unequal treatment of projects and a perception that it will increase rather than decrease bureaucracy. Several members of Congress have since proposed a Congressional Review Act resolution to strike down the policy.[70]

Instead of pursuing large stimulus packages to reduce carbon emissions when they were already on a declining trajectory, the Biden Administration should work to make investment in energy projects and innovation easier. Trade restrictions on components needed in domestic energy production should be lifted. Furthermore, the Administration should work to pass comprehensive permitting reform. H.R. 1, the Lower Energy Costs Act, which passed the House of Representatives in March 2023, would accomplish this objective in a manner that is neutral to the type of energy production. S. 3814, the Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency (RESTART) Act, introduced by Senate Environment and Public Works Committee Ranking Member Capito, would also similarly reduce permitting burdens.

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[70] Senate Committee on Energy & Natural Resources, "ICYMI: Manchin, Graves, Sullivan to Introduce Bipartisan, Bicameral CRA Resolution on NEPA Phase II Final Rule," May 8, 2024, https://www.energy.senate.gov/2024/5/icymi-manchin-graves-sullivan-to-introduce-bipartisan-bicameral-cra-resolution-on-nepa-phase-ii-final-rule.

CHAPTER 2: DEMOGRAPHICS AND THE DEFICIT

Last year's *Response* overviewed the importance and increasingly difficult challenge of improving the United States' fiscal health.[71] JEC Republicans concluded that the growth of the Federal debt is "on an unsustainable and potentially ruinous path" and that this growth in debt is driven largely by spending on mandatory programs.[72] Since that *Response* was written a year ago, the situation has only grown more dire. As of May 2024, the debt-to-GDP ratio exceeds 97 percent and total debt held by the public is more than $27 trillion.[73] Given the current growth rate of the debt, this is projected to be greater than $30 trillion by May of next year.[74] Our debt crisis can only be solved by understanding the factors that are driving our debt and crafting policies that can contend with them. This Chapter is intended to make clear that demographic changes, such as an older population, a declining fertility rate, and a reduction in male prime-age (25-54) labor force participation are the primary forces driving increases in our mandatory spending and deficit.

Social Security

Ensuring the solvency of Social Security is critical to maintaining financial well-being among seniors. As of the 2024 Social Security Trustees Report, the combined Social Security trust funds, which pay out benefits, are expected to be depleted by 2035. This would

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[71] Joint Economic Committee (JEC) Republicans, *Republican Response to the Economic Report of the President* (U.S. Congress Joint Economic Committee, 2023): 2, https://sen.gov/LVQYY.

[72] JEC Republicans, *Response*, 24.

[73] Congressional Budget Office (CBO), *The Budget and Economic Outlook: 2024 to 2034* (February 2024); JEC Republicans, "Congressman David Schweikert's Daily Debt Monitor," accessed May 9, 2024.

[74] $30 trillion figure is derived by taking the current daily growth of the debt and adding it to the current debt level as of May 9th. CBO, "10 Year Budget Projections;" JEC Republicans, "Daily Debt Monitor."

result in an automatic 21 percent cut to all individuals' benefits.[75] It is estimated that the senior poverty rate would subsequently more than double, from 1.5 to 3.3 percent.[76] Social Security's solvency becomes even more sensitive to employment and wage growth as the depletion of the combined trust funds necessitates increased revenues. Understanding Social Security and the drivers of its rising costs is necessary to ensure its solvency and protect the financial stability of its beneficiaries.

In 1935, President Roosevelt signed the Social Security Act into law which provided retirement insurance to approximately 222,000 beneficiaries.[77] Originally only providing payments to retired workers in certain industries, Social Security has since been expanded dramatically both in coverage and overall fiscal cost. In 1939, the program was expanded to include the families of retired workers, and, since then, there have been more than 20 expansions or reforms to the entitlements and number of covered beneficiaries.[78] While there has not been a major expansion to Social Security in over 20 years, costs continue to grow. Social Security spending as a share of GDP was 3.1 percent in 1970, but now stands at 5.2 percent and is expected to rise to nearly 6 percent

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[75] Social Security Administration, *2024 OASDI Trustees Report* (May 6, 2024), https://www.ssa.gov/oact/TR/2024/index.html; Peter G. Peterson Foundation, "Social Security and Medicare Trust Funds Could Soon Be Depleted," https://www.pgpf.org/blog/2024/05/social-security-and-medicare-are-facing-serious-shortfalls.

[76] Social Security Administration, "The Distributional Consequences of a 'No-Action' Scenario: Updated Results," July 2005, https://www.ssa.gov/policy/docs/policybriefs/pb2005-01.html.

[77] Note that the 222,000 figure is from the first available data from 1940. Martha A. McSteen, "Fifty Years of Social Security," Social Security Administration, https://www.ssa.gov/history/50mm2.html.

[78] Geoffrey Kollmann, "Social Security: Summary of Major Changes in the Cash Benefits Program," Social Security Administration, https://www.ssa.gov/history/reports/crsleghist2.html.

by 2035.[79] The increases in spending result from a growing number of beneficiaries in response to an aging population.

Social Security benefits are funded by current workers' taxes, which are deposited into the two Social Security trust funds, the Old-Age and Survivors Insurance Trust Fund (OASI) and the Disability Insurance Trust Fund (DI).[80] These funds are obligated to invest in special U.S. Treasury securities, which pay a rate that is determined by a formula established in Section 201(d) of the Social Security Act.[81] The program operates as a "pay as you go system," which means that current workers pay into the trusts to fund the benefits for current retirees.[82] For nearly 30 years, the Social Security Administration (SSA) received more in tax revenue than it paid out in benefits. The excess funds were deposited into the trusts, which receive interest on deposits by investing in securities from the Treasury.[83] Starting in 2021, however, trust fund reserves began to fall because the benefits paid out exceeded the income received from payroll taxes.[84] Short-term increases in Social Security payments can be driven by greater than anticipated cost-of-living adjustments (COLA), but long-run risks to the depletion of the trust funds are due to demographic

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[79] Social Security Administration, *2024 OASDI Trustees Report* (May 6, 2024), Table VI.G4, https://www.ssa.gov/OACT/TR/2024/index.html.

[80] Social Security Administration, "What are the Trust Funds?", https://www.ssa.gov/news/press/factsheets/WhatAreTheTrust.htm.

[81] Social Security Administration, "Interest Rate Formula For Special Issues." https://www.ssa.gov/oact/progdata/intrateformula.html.

[82] Stephen C. Goss, "The Future Financial Status of the Social Security Program," Social Security Administration, https://www.ssa.gov/policy/docs/ssb/v70n3/v70n3p111.html.

[83] Center on Budget and Policy Priorities, "Policy Basics: Understanding the Social Security Trust Funds," https://www.cbpp.org/research/policy-basics-understanding-the-social-security-trust-funds.

[84] Social Security Administration, "A Summary of the 2021 Annual Reports," https://www.ssa.gov/oact/TRSUM/2021/index.html.

changes. Putting Social Security on a sustainable path requires understanding these demographic changes and implementing policies to contend with them.

The composition of the U.S. population has changed dramatically since Social Security was first implemented. Americans were younger, having children at higher rates, and there was stronger labor force participation among prime-age men.[85] A critical factor to the cost of the program is that in 1940 the proportion of the population that was 65 or older was 6.8 percent, but, as of 2022, that number has more than doubled to 17.3 percent.[86] Currently, there are approximately 2.9 Americans aged between 25 and 64 for every American aged 65 or older. CBO projects that this ratio will fall to 2.2 by 2054.[87] Because of the way benefits are distributed, the country's age distribution is the most important factor in determining present and future costs for Social Security.

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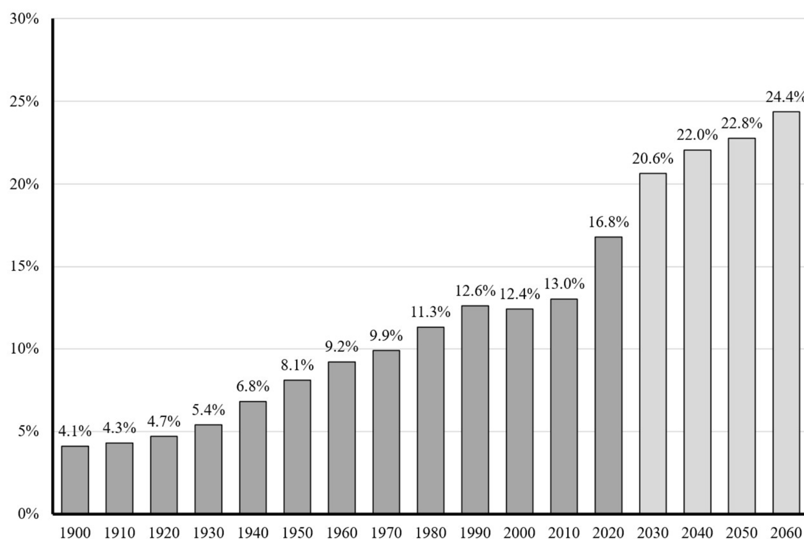
[85] U.S. Bureau of Labor Statistics, "Labor Force Participation Rate - Men [LNS11300001]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/LNS11300001; World Bank, "Fertility Rate, Total for the United States [SPDYNTFRTINUSA]," retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/SPDYNTFRTINUSA.

[86] Zoe Caplan, "U.S. Older Population Grew From 2010 to 2020 at Fastest Rate Since 1880 to 1890," United States Census Bureau, May 25, 2023, https://www.census.gov/library/stories/2023/05/2020-census-united-states-older-population-grew.html; United States Census Bureau, "Population 65 Years and over in the United States, 2022," American Community Survey, https://data.census.gov/table/ACSST1Y2022.S0103?q=S0103: Population 65 Years and Over in the United States.

[87] CBO, *The Demographic Outlook: 2024 to 2054*, January 2024, https://www.cbo.gov/publication/59899.

Figure 2-1: Percent of U.S. Population Aged 65 and Older

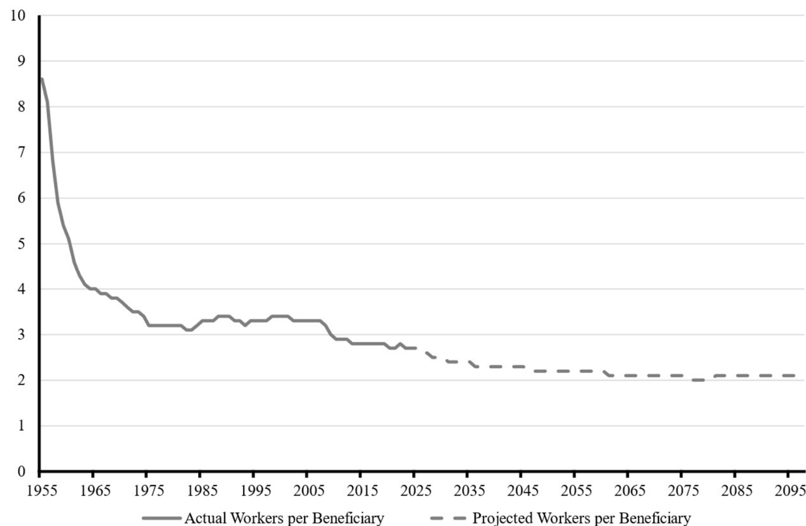


Source: Census Bureau (Decennial Census of Population, 1900 to 2020), 2023 National Population Projections

As more people age and become beneficiaries, it is important that there is a sufficient working population to sustain them. The ratio of covered workers to retirees, which measures the number of workers paying taxes into Social Security relative to the number of retirees receiving benefits, was over 40 in 1945. Today, this ratio has shrunk to 2.7.[88] Fewer covered workers places increased financial pressure on existing workers as there are fewer of them to support more retirees.

[88] Note that the types of individuals covered has expanded since 1945. Since the most recent expansion in 2000, however, the ratio of covered workers to retirees has steadily declined. Social Security Administration, "Ratio of Covered Workers to Beneficiaries," Social Security History, https://www.ssa.gov/history/ratios.html; Social Security Administration, "Fact Sheet – Social Security," https://www.ssa.gov/news/press/factsheets/basicfact-alt.pdf.

Figure 2-2: Ratio of Covered Workers to Social Security Beneficiaries



Source: 2024 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Table IV.B3 (intermediate assumptions)

Even without any major expansions in the past 20 years, Social Security costs are expected to rise substantially over the next decade. CBO projects that annual Social Security spending will grow by over a trillion dollars in the next ten years, increasing from $1.45 trillion in FY2024 to $2.47 trillion in FY2034.[89] Social Security, a program which previously generated more income than it paid out in benefits, is now the most expensive individual program in the Federal budget.[90] The primary driver for this growth is the aging population. Without accepting the demographic reality and creating policies that address its implications, it is impossible to meaningfully put the country on a sustainable fiscal path.

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[89] CBO, *The Budget and Economic Outlook: 2024 to 2034*, Table 1-4.

[90] Peter G. Peterson Foundation, "The Ratio of Workers to Social Security Beneficiaries is at a Low and Projected to Decline Further." August 2022, https://www.pgpf.org/blog/2022/08/the-ratio-of-workers-to-social-security-beneficiaries-is-at-a-low-and-projected-to-decline-further.

Healthcare Spending

Reining in healthcare spending is also critical to achieving a sustainable fiscal path. Finding innovative ways to reduce adverse health outcomes will lower per patient costs and lead to a healthier overall population. Much like in Social Security, demographics play a significant role in the overall cost of healthcare. Healthcare costs are closely associated with the age of patients, and the sum of healthcare spending borne by the Federal government increases as more seniors enroll in Medicare. It is estimated that nearly half of an individual's lifetime healthcare expenditures will occur after age 65, and expenditures grow larger after an individual reaches 65.[91] For those who reach age 85, an estimated one-third of their lifetime healthcare expenses will occur after that age.[92] The health profile of seniors and the mean age of the Medicare population can accelerate costs even after accounting for changes in the overall number of enrollees. Policymakers should recognize not only the total number of individuals over the age of 65, but also the average U.S. life expectancy and how these factors might impact Federal spending.[93] As healthcare costs continue to rise, more money must be drawn from current earners to fund existing programs. For example, in the most recent MedPAC Report to Congress, they estimated that the share of all personal and corporate income taxes that are transferred to the Medicare trust fund will rise from 13 percent in 2022 to 22 percent in 2030.[94] Understanding future

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[91] Berhanu Alemayehu and Kenneth E. Warner, "The Lifetime Distribution of Health Care Costs," *Health Services Research* 39, no. 3 (2004): 627-42, https://doi.org/10.1111/j.1475-6773.2004.00248.x.

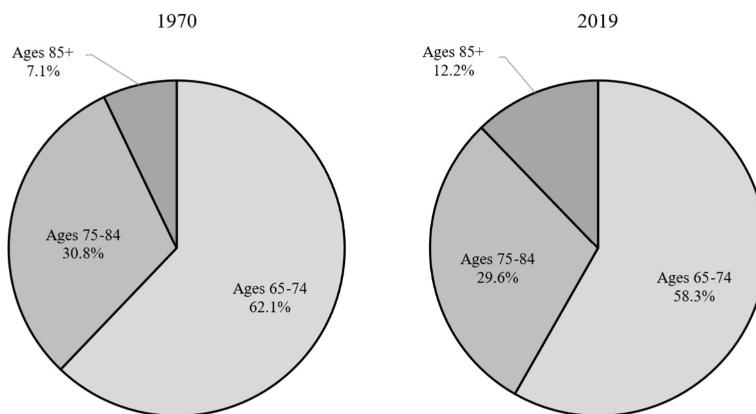
[92] Alemayehu and Warner, "The Lifetime Distribution of Health Care Costs," 637.

[93] Social Security Administration, "Actuarial Life Table," https://www.ssa.gov/oact/STATS/table4c6.html.

[94] Medicare Payment Advisory Commission, *March 2024 Report to the Congress: Medicare Payment Policy* (March 2024): 5, https://www.medpac.gov/document/march-2024-report-to-the-congress-medicare-payment-policy/.

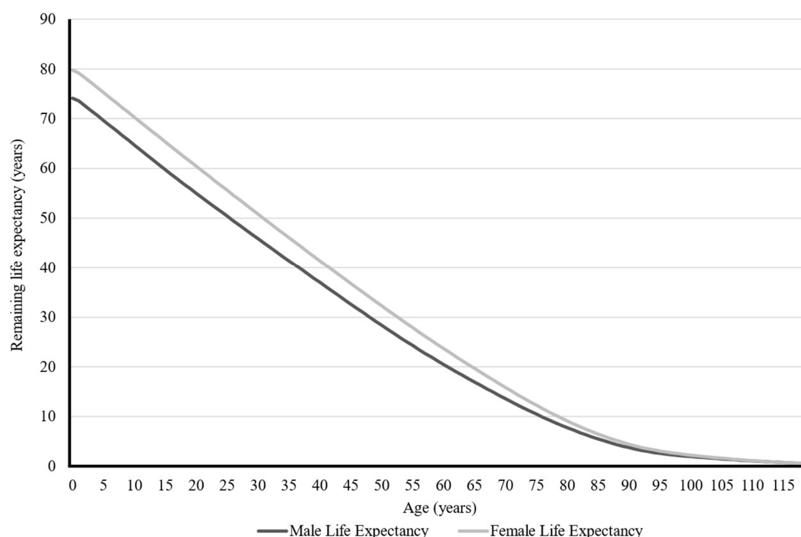
costs is necessary to both protect our existing healthcare programs and ensure economic stability for current workers.

Figure 2-3: Age Distribution of Seniors



Source: U.S. Census Bureau, Population Division, "National Population Estimates by Age, Sex, Race"

Figure 2-4: Remaining Life Expectancy by Age



Source: Social Security Administration (Period Life Table, 2020, as used in the 2023 Trustees Report)

As of the most recently available data from 2021, someone who is age 65 can on average expect to live an additional 17 to 20 years, while someone who is 85 can expect to live an additional 5.7 to 6.7 years.[95] CBO projects, however, that over the next 30 years, life expectancy at birth will rise from 78.7 years to 82.2 years, while life expectancy at age 65 will rise to 21.8 years.[96] Not only will the overall population grow older, but the average age of the population over 65 will also rise. However, actualization of these forecasts is not guaranteed as unforeseen events, such as the COVID-19 pandemic, have caused life expectancy to significantly deviate from prior trends.[97] Unpredictability in life expectancy, in combination with other factors, such as changes in the aggregate

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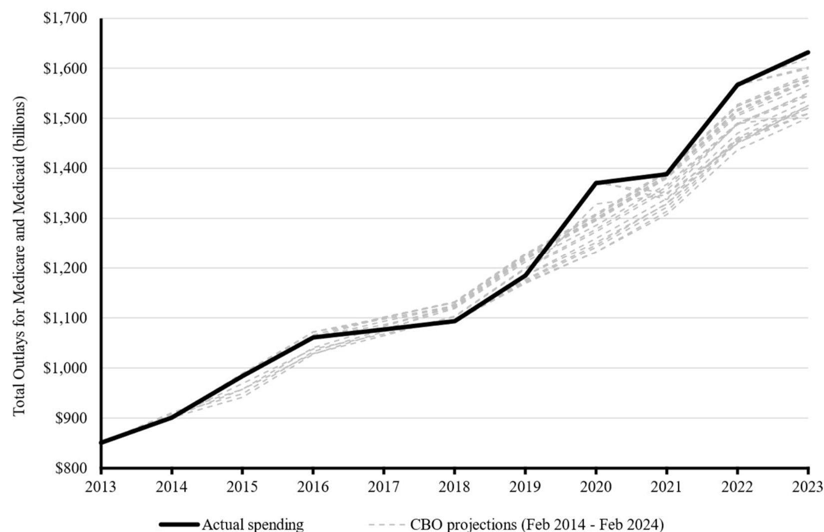
[95] Social Security Administration, "Actuarial Life Table."

[96] CBO, *The Demographic Outlook: 2024 to 2054*.

[97] Centers for Disease Control and Prevention, "Life Expectancy in the U.S. Dropped for the Second Year in a Row in 2021," https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2022/20220831.htm.

health of our population, make projecting overall healthcare spending much more difficult. This is especially true when compared to projecting Social Security expenditures. Medicare spending contributes directly to the deficit, and its unpredictability risks driving outlays and net interest payments much higher than anticipated.

Figure 2-5: CBO Projections Compared to Actual Spending on Medicare and Medicaid Over the Past Ten Years



Source: Congressional Budget Office (CBO, Baseline Estimates 2014 -2024)

Figure 2-5 compares CBO's projections of Medicare and Medicaid spending to actual spending on those programs each year. As expected, outlays for these programs have been above CBO's forecasts for most recent years. CBO models do not explicitly account for or project changes in the aggregate health of the U.S. population. This can cause its projections to substantially deviate from actual spending each year. We urge CBO to instead explicitly account for changes in the aggregate health of the population, such as the rising projected obesity rates outlined in Chapter 4. Healthcare spending will be significantly higher than

CBO anticipates if obesity rates rise at the rate JEC Republicans project due to higher-than-anticipated medical costs. The inherent unpredictability in health and healthcare spending makes it even more prudent to reach a more sustainable fiscal path sooner rather than later. Higher than projected deficit spending would raise net interest costs, further worsening the fiscal trajectory.

Fertility

Until 1971, births alone were enough to keep the population growing.[98] The total fertility rate, or the average number of babies born of each woman over the course of her life, was 2.26, above the replacement rate. The replacement rate is the fertility rate needed to keep the population size stable without any net migration. In the U.S. and most of the developed world the necessary rate is 2.1, while globally it is around 2.3 due to higher mortality rates.[99] CBO projects that in 2040, deaths will exceed births and all additional population growth will be exclusively due to immigration.[100]

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[98] World Bank, "Fertility Rate, Total for the United States."
[99] World Bank, "Fertility Rate, Total (Births per Woman)," 2022, https://data.worldbank.org/indicator/SP.DYN.TFRT.IN.' Institute for Health Metrics and Evaluation, "The Lanet: Dramatic Declines in Global Fertility Set to Transform Global Population Patterns by 2100." March 2024, https://www.healthdata.org/news-events/newsroom/news-releases/lancet-dramatic-declines-global-fertility-rates-set-transform.
[100] CBO, *The Demographic Outlook: 2024 to 2054*.

Figure 2-6: Declining Fertility Rate in the United States

Source: World Bank (Fertility Rate, Total for the United States [9SPDYNTFRINUSA])

The U.S. fertility rate has fluctuated since the mid-1970s but has generally remained below replacement level. The fertility rate reached an all-time low of 1.62 in 2023 and has not rebounded to pre-pandemic levels.[101] The fertility crisis in the United States is not unique, however, and has been observed throughout the industrialized world.

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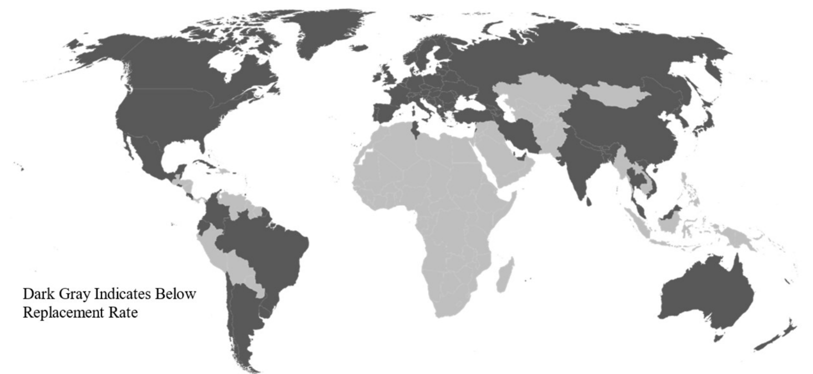
[101] Brady E. Hamilton, Joyce A. Martin, and Michelle J.K. Osterman, "Births: Provisional Data for 2023," CDC Vital Statistics Rapid Release, no. 35 (April 2024), https://dx.doi.org/10.15620/cdc/151797.

Figure 2-7: Countries with a Total Fertility Rate Below the Replacement Rate



Source: United Nations (Population Division, World Population Prospects 2022, GEN/01/REV1)
Note: Replacement Rate = 2.1

Very few developed countries have a fertility rate above replacement, and the global fertility rate has been on the decline for several years.[102] The fertility rate is important to the economy and fiscal situation for several reasons. Declining fertility rates and a shrinking ratio of workers to retirees has a significant impact on economic growth and government finances. John Fernald and Huiyu Li at the Federal Reserve Bank of San Francisco find that the new normal rate of economic growth in the U.S. is at historically low levels, largely due to demographic changes and a shrinking labor force from low fertility rates.[103] As outlined in last year's *Response*, a smaller real growth rate of the economy means

[102] James Gallagher, "Fertility Rate: 'Jaw-dropping' Global Crash in Children Being Born," *BBC*, https://www.bbc.com/news/health-53409521.

[103] John Fernald and Huiyu Li, "Is Slow Still the New Normal for GDP Growth?", Federal Reserve Bank of San Francisco Economic Letter, June 24, 2019, https://www.frbsf.org/research-and-insights/publications/economic-letter/2019/06/is-slow-still-new-normal-for-gdp-growth/.

there is a narrower path to stabilize the debt-to-GDP ratio. Slower growth requires a significantly lower primary deficit and a smaller real interest rate on the debt.

In addition, low fertility rates create significant headwinds to financing mandatory spending programs. Earnings from current workers are used to pay for the benefits paid out to older Americans today. Programs like Social Security are built on the assumption that there will be a large enough younger working population to financially support the older population. If fertility rates continue to decline, the working population will shrink too small relative to the older population. Additionally, reduced tax revenues from a smaller working population means there is a weakened ability to fund social services. A greater number of older Americans also means that more younger Americans may need to exit the labor force to care for them. It is critical to understand the implications of lower fertility rates combined with an aging population and the financial challenges that result.

Fertility Policy

There has not been a proven solution to improve fertility rates. Many countries have explicitly set target fertility rates and implemented robust social programs to achieve them. Despite this, only one country, Belarus, was able to meet their fertility target, albeit only temporarily.[104] Spending an additional $250 billion per year on childcare spending in the U.S., or 1 percent of GDP, is

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[104] Fertility in Belarus fell 25 percent in the two years following achieving target fertility. Cash transfers were the primary method of incentivizing births, and the subsequent decline implies that the transfers may have just shifted the timing of births rather than created new births that otherwise would not have occurred. Vanessa Brown Calder and Chelsea Follett, "Freeing American Families," Cato Institute Policy Analysis, August 10, 2023, https://www.cato.org/policy-analysis/freeing-american-families.

estimated to only result in raising the total fertility rate by 0.2 children per woman.[105] This would still be approximately 0.3 children per woman below the replacement rate.

The literature on the effectiveness of pro-natalist policies has been mixed at best, suggesting that government spending is a poor method to improve fertility rates.[106] With few exceptions, as countries have become richer, fertility rates have declined.[107] It does not necessarily follow that providing families with more money would reverse fertility trends. Declining fertility rates may instead be a product of cultural changes, such as falling marriage rates and parents choosing to delay having children.[108]

Nevertheless, there is still room for the Federal government to incentivize family formation. Instead of spending additional dollars on programs that have shown limited results, Congress should focus on removing financial barriers for would be parents to give them more flexibility. Reforms such as Vice Chairman Schweikert's bill to reform the tax code to allow deductions for

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[105] Melissa S. Kearney and Phillip B. Levine, "The Causes and Consequences of Declining U.S. Fertility" in *Economic Policy in a More Uncertain World*, Aspen Economic Strategy Group, 2023, https://www.economicstrategygroup.org/wp-content/uploads/2022/08/Kearney_Levine_081222.pdf.

[106] Calder and Follet, "Freeing American Families."

[107] Matthias Deopke, Anne Hannusch, Fabian Kinderman, and Michèle Tertilt, "The New Economics of Fertility," International Monetary Fund, September 2022, https://www.imf.org/en/Publications/fandd/issues/Series/Analytical-Series/new-economics-of-fertility-doepke-hannusch-kindermann-tertilt.

[108] Pew Research, "The Long-Term Decline in Fertility—and What It Means for State Budgets," December 5, 2022, https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2022/12/the-long-term-decline-in-fertility-and-what-it-means-for-state-budgets.

newborn expenses would reduce the tax burden on families.[109] Additionally, policies that remove barriers to building new homes can reduce housing costs for potential families and reduce the financial burden of having children. Research suggests that home prices are the largest component in the cost of raising a child and that home prices play a significant role in family formation.[110] Although the academic literature suggests that "rising costs for housing and childcare, while certainly having an impact on families, cannot account for the decline in fertility rates in the United States," reducing costs to family formation through tax and regulatory reform can at least marginally reduce the costs associated with having children.[111]

Talent-Based Migration

One of the U.S.' most valuable resources is its ability to attract high-skilled individuals from other countries to come work and study here. The economic literature suggests that skilled immigrants have an outsized impact on the U.S. economy and that their contributions result in positive wage and employment outcomes for native-born Americans.[112] For example, for every 100 foreign-born workers who receive an advanced degree in a STEM field in the U.S., it is estimated that 262 jobs are created for

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[109] To Amend the Internal Revenue Code of 1986 to Provide a Deduction for Certain Newborn Expenses, H.R. 7425, 118th Cong. (2024).

[110] Lisa J. Dettling and Melissa Schettini Kearney, "House Prices and Birth Rates: The Impact of the Real Estate Market on the Decision to Have a Baby," NBER Working Paper no. 17485 (October 2011), https://doi.org/10.3386/w17485.

[111] CEA, *Economic Report of the President* (The White House, 2024): 114-16, https://www.whitehouse.gov/wp-content/uploads/2024/03/ERP-2024.pdf.

[112] Madeline Zavodny, "Immigration and American Jobs," American Enterprise Institute, December 15, 2011, https://www.aei.org/research-products/working-paper/immigration-and-american-jobs/.

native-born Americans.[113] Additionally, due to the outsized economic output of their contributions, granting permanent residency to immigrants with advanced STEM degrees is projected to reduce the deficit by $129 billion over the next ten years.[114] While research suggests that immigration, especially low-skilled immigration, is an ineffective tool for addressing labor shortages and an aging population in the long run, there is strong evidence that high-skilled immigrants contribute positively to economic growth that is also realized by native-born Americans.[115] Increasing the real growth rate of the economy can help stabilize debt-to-GDP and relieve some of the strains caused by the deterioration of the demographic situation.

High-skilled immigrants contribute disproportionately to technological innovation and this leads to improved economic outcomes for all Americans. As technology improves, more jobs are created, workers become more productive, and firms can produce more goods at lower unit costs. A 2003 survey found that foreign-born individuals with a college degree are twice as likely to have a patent as native-born college graduates.[116] An analysis

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[113] Zavodny, "Immigration and American Jobs."

[114] Alex Arnon, Vidisha Chowdhury, Duncan Haystead, Brendan Novak, and Youran Wu, "Budgetary Effects of Granting Green Cards to Immigrants with Advanced STEM Degrees," Penn Wharton Budget Model, January 18, 2024, https://budgetmodel.wharton.upenn.edu/issues/2024/1/18/budgetary-effects-of-stem-green-cards.

[115] Steven A. Camarota, "Immigration and the Aging Society," *National Affairs*, no. 59 (2024), https://nationalaffairs.com/publications/detail/immigration-and-the-aging-society.

[116] Shai Bernstein, Rebecca Diamond, Abhisit Jiranaphawiboon, Timothy James McQuade, and Beatriz Pousada, "The Contribution of High-Skilled Immigrants to Innovation in the United States," Stanford Graduate School of Business Working Paper 3748, December 2022, https://www.gsb.stanford.edu/faculty-research/working-

of patent data from 1976 to 2022 found that immigrants are responsible for 30 percent of all U.S. innovation since 1976, despite only composing 16 percent of U.S. inventors over that span.[117] This is due to the large economic impact of their patents and because of the spillover effects that their innovation has on native-born inventors. The intellectual capital gained from the new inventions spurs further innovation. Foreign-born inventors are also more likely to import knowledge from other countries, which exposes native-born inventors to information they may not have otherwise encountered.[118] Skilled immigrants both innovate at a rate greater than the native population and bolster the work of native-born inventors, which results in improved economic outcomes for all.

Skilled Immigration and Growth

At a time where the U.S.' debt-to-GDP ratio is skyrocketing, it is imperative that policymakers pursue policies to increase economic growth.[119] High-skilled immigrants contribute substantially to the U.S. economy and their contributions have led to increased economic activity. Almost half of Fortune 500 companies were founded by immigrants or the children of immigrants which includes companies such as IBM, AT&T, and Bank of America, who as a whole employ 14.8 million people and have combined annual revenue of over $8 trillion.[120] Additional research suggests that immigrants start business at a rate that is 80 percent higher

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papers/contribution-high-skilled-immigrants-innovation-united-states.

[117] Bernstein et al., "The Contribution of High-Skilled Immigrants."

[118] Bernstein et al., "The Contribution of High-Skilled Immigrants."

[119] JEC Republicans, "Daily Debt Monitor."

[120] American Immigration Council, "New American Fortune 500 in 2023," August 29, 2023, https://www.americanimmigrationcouncil.org/research/new-american-fortune-500-2023.

than native-born Americans.[121] This held true even for businesses of large sizes, suggesting that this business creation was not exclusive to smaller firms.[122] The accelerated creation of new firms will drive up demand for labor, increasing employment and wages for native-born workers. Increasing the real growth rate of the economy is a critical tool in stabilizing the debt-to-GDP ratio, and high-skilled immigrants offer a pragmatic path to do so.

Employment

Despite fears that immigrants take jobs away from native-born Americans, there is overwhelming evidence to the contrary for those that are high-skilled. On net, high-skilled immigration leads to increased employment for native-born Americans.[123] For every 100 immigrant workers who receive advanced STEM degrees in the United States, an additional 262 jobs are created for native-born Americans.[124] This analysis is derived by comparing employment in states that have a low number of skilled immigrants to states that have a high number. The author controls for differences in the foreign-born population by state that are the result of differing employment opportunities (i.e., high-skilled workers choosing to work in a state with more jobs) to estimate the net employment impact on native-born Americans. Even in the case of temporary residents, the employment effect is strong. The authors estimate that a 10 percent increase in the number of high-skilled H-1B visa workers results in a 0.11 percent increase in the employment rate for native-born Americans, which translates to

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[121] Pierre Azoulay, Benjamin F. Jones, J. Daniel Kim, and Javier Miranda, "Immigration and Entrepreneurship in the United States," NBER Working Paper no. 27778 (September 2020), https://doi.org/10.3386/w27778.
[122] Azoulay et al., "Immigration and Entrepreneurship in the United States."
[123] Azoulay et al., "Immigration and Entrepreneurship in the United States."
[124] Zavodny, "Immigration and American Jobs."

an additional 183 jobs for every 100 additional H-1B workers.[125] Across the board, evidence suggests that there is a strong positive relationship between H-1B visas and employment opportunities for native-born Americans.[126]

Budgetary Impact

A common concern regarding immigration is that there will be a resulting increase in outlays. In the case of high-skilled immigration the opposite is true. Unlike for low-skilled immigration, high-skilled immigrants reduce the deficit because they earn higher-than-average wages.[127] The current net fiscal impact of all high-skilled immigrants with at least a college degree is estimated to be a surplus of $13 trillion over the course of their lives.[128] In the short-term, the Penn Wharton Budget Model estimates that granting permanent residency to immigrants with advanced STEM degrees would reduce the deficit by $129 billion between 2025 and 2034 and $634 billion between 2035 and 2044.[129] For the 2025–2034 period, high-skilled immigrants would generate an additional $133 billion in tax receipts while only increasing outlays by approximately $4 billion. Using Penn Wharton's estimates of the change in population that would arise from granting permanent residency to immigrants with advanced degrees, each immigrant would reduce the deficit by

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[125] Zavodny, "Immigration and American Jobs."

[126] William R. Kerr, "The Gift of Global Talent: Innovation, Policy, and the Economy," NBER Working Paper no. 25875 (May 2019), https://doi.org/10.3386/w25875.

[127] *The Net Fiscal Costs of Low-skilled and Illegal Immigration for the U.S. Taxpayer, Testimony Before the U.S. Senate Committee on the Budget*, 118th Cong. (September 13, 2023) (statement of Robert Rector), https://www.budget.senate.gov/imo/media/doc/rector_testimony_913.pdf.

[128] Rector, testimony before the U.S. Senate.

[129] Arnon et al., "Budgetary Effects of Granting Green Cards."

approximately $150,000 over the next ten years. The economic literature on the net impact of high-skilled immigrants on the budget is overwhelmingly positive, and more growth can be expected as the intellectual capital gained from skilled immigration compounds over time.

Streamlining the process for high-skilled immigrants to work and live in the country has the potential to increase growth, reduce the deficit, and improve outcomes for native-born Americans. The current limit in the H-1B program on the number of foreign-born college graduates who can receive permanent residency, which amounts to only 85,000 a year, holds back economic growth.[130] By failing to accommodate the over 1 million highly skilled individuals who are on waitlists to come and work in the country, the United States misses out on a massive economic opportunity and drives potential talent away to countries like China and India.[131] The United States is squandering its comparative advantage of being a desirable place to live, work, and innovate. Facilitating a straightforward pathway for high-skilled foreign-born workers to work and live in the United States will produce strong economic benefits for all Americans and help put the United States on a more sustainable fiscal path.

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[130] U.S. Citizenship and Immigration Services, "H-1B Cap Season," U.S. Department of Homeland Security, https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-1b-specialty-occupations-and-fashion-models/h-1b-cap-season.

[131] David J. Bier, "Backlog for Skilled Immigrants Tops 1 Million: Over 200,000 Indians Could Die of Old Age While Awaiting Green Cards," Cato Institute Policy Brief, March 30, 2020, https://www.cato.org/publications/immigration-research-policy-brief/backlog-skilled-immigrants-tops-1-million-over.

Prime-age Labor Force Participation

The decline in labor force participation among prime-age men is yet another demographic headwind to stabilizing the debt-to-GDP ratio. As the ratio of workers to retirees has dropped, those who are of prime working age are simultaneously working less. Chapter 5 of last year's *Response* outlined how one in nine men between the ages of 25 and 54 are now out of the labor force, more than triple the rate in the 1950s.[132] JEC Republican economists estimated that if 25 percent of these men were re-integrated into the workforce, it would result in the economy being $215 billion larger and would generate an additional $400 billion in Federal government tax receipts over the next ten years. As America ages this problem will worsen. Fewer working hours means lower tax receipts, which places even more pressure on mandatory programs. Additionally, even more workers may exit the labor force to care for their aging parents or family members. As of April 2024, 159,000 individuals that were not in the labor force reported being absent due to family responsibilities.[133] More than 100,000 were of prime working age, and the total figure has risen by 14,000 over the past year.

Several factors have contributed to the decline in male prime-age labor force participation including increased participation in disability programs, institutional barriers like occupational licensing, and decreased social pressure to be employed.[134] Another concerning trend that is affecting the overall workforce is the decline in life expectancy for those who are of prime-working age. Following the drop in average life expectancy in 2020 and

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[132] JEC Republicans, *Response*, 93.
[133] U.S. Bureau of Labor Statistics, "Labor Force Statistics from Current Population Survey," April 2024, https://www.bls.gov/web/empsit/cpseea38.htm.
[134] JEC Republicans, *Response*, 93.

2021, there were parallel increases in mortality for those in the 25–54 age bracket.[135]

Deaths of Despair

The two leading causes of death are still heart disease and cancer, but there has been a significant rise in the number of opioid deaths and other deaths of despair.[136] Deaths of despair, or deaths occurring from drug overdose, suicide, and alcoholic liver disease, have been rising for the past two decades. This trend came to a head during the COVID-19 pandemic, when over 178,000 individuals died due to such causes in 2020 alone.[137] Deaths of despair disproportionately affect younger Americans, and because of this, they resulted in a greater number of years of life lost than COVID-19 did in 2020, despite COVID-19 causing nearly double the overall number of deaths.[138] Even in subsequent years, deaths of despair, especially those due to drugs and alcohol, continued to rise, well above the pre-pandemic pace.[139] As outlined in Chapter 3 of last year's *Response*, improving public health not only improves economic outcomes but also increases the quality of life

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[135] Sara Berg, "What Doctors Wish Patients Knew About Falling U.S. Life Expectancy," American Medical Association, March 10, 2023, https://www.ama-assn.org/delivering-care/public-health/what-doctors-wish-patients-knew-about-falling-us-life-expectancy.

[136] Sara Berg, "What Doctors Wish Patients Knew."

[137] JEC Republicans, "Long-Term Trends in Deaths of Despair," September 5, 2019, https://www.jec.senate.gov/public/index.cfm/republicans/2019/9/long-term-trends-in-deaths-of-despair; Parker Entrup et al., "Years of life lost due to deaths of despair and COVID-19 in the United States in 2020: patterns of excess mortality by gender, race and ethnicity," *International Journal for Equity in Health* 22, no. 1 (2023): 161, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10464324/.

[138] Entrup et al. "Years of Life Lost."

[139] C. Angus, C. Buckley, A.M. Tilstra, and J.B. Dowd, "Increases in 'Deaths of Despair' During the COVID-19 Pandemic in the United States and the United Kingdom," *Public Health* 218, (2023): 92-96, https://doi.org/10.1016/j.puhe.2023.02.019.

for millions of Americans. Addressing rising mortality among younger Americans and improving health should be a priority for policymakers. Doing so would significantly improve the U.S.' fiscal situation.

Summary

The U.S.' budget crisis is ultimately a product of its ongoing demographic trends. The country is facing a multitude of demographic headwinds largely driven by the aging population, declining fertility rates, and decreased prime-age labor force participation among men. Contending with these demographic trends is essential to solving its budget issues. Policymakers should focus on creating policies to improve demographic outcomes, such as removing barriers to family formation and reconnecting prime-age individuals to work, but also recognize that many demographic problems are due to the nature of social programs. Policy changes can help alleviate some of these demographic problems, but, ultimately, the budget crisis will not be solved without reining in out-of-control spending.

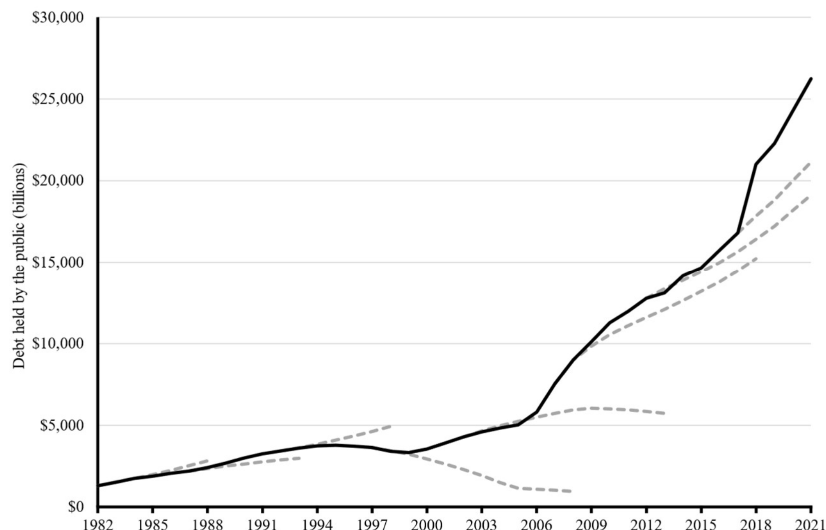
CHAPTER 3: TAX INCREASES HARM GROWTH

The United States is on an unsustainable fiscal path.[140] Persistent budget deficits are ballooning the national debt at an alarming rate. As of May 2024, the debt held by the public is over $27 trillion (99 percent of Gross Domestic Product), and the total government debt is almost $35 trillion (124 percent of GDP). According to the Congressional Budget Office (CBO), it is estimated that by 2050, these components will reach 155 and 169 percent of the size of the economy, respectively.[141] These could be underestimations. Figure 3-1 shows that debt projections have been consistently below the realized values in the past two decades.

[140] Taylor Giorno, "Powell: 'The US is on an unsustainable fiscal path,'" *The Hill*, February 4, 2024, https://thehill.com/homenews/4447860-powell-the-us-is-on-an-unsustainable-fiscal-path/.

[141] Congressional Budget Office (CBO), *The Long-Term Budget Outlook: 2024 to 2054* (March 2024): Table 1, https://www.cbo.gov/system/files/2024-03/51119-2024-03-LTBO-budget.xlsx.

Figure 3-1: Debt Held by the Public Compared to CBO Projections



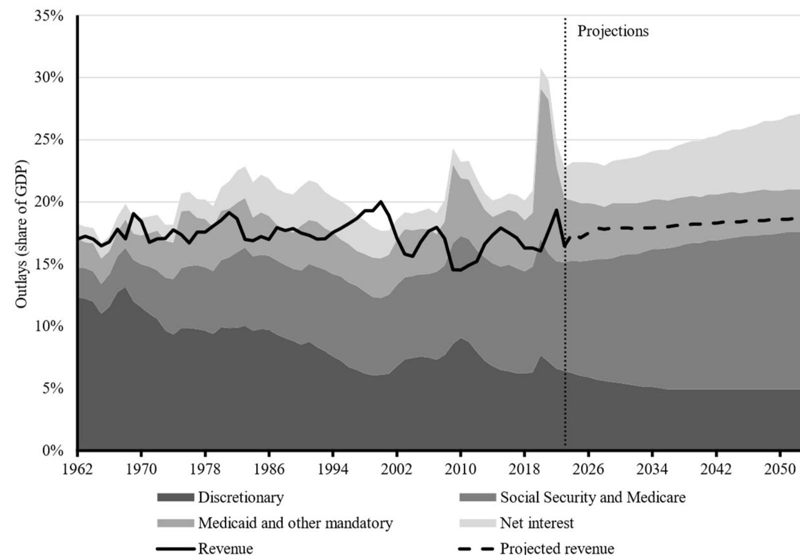
Source: Congressional Budget Office (CBO), baseline projections (1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020)
Note: CBO baseline projections prior to 1996 are 5-year projections

While large jumps in the debt-to-GDP ratio typically coincide with recessions, the primary driver of deficits is mandatory spending which only continues to increase. Most of the growth in mandatory spending is due to demographics, specifically the aging of the population. Figure 3-2 shows that while Social Security and Medicare were less than 19 percent of total outlays in 1970, by the 2040s they will represent almost one of every two dollars spent by the government.[142] This means that over 60 percent of all primary spending will be transfers to the population aged 65 and over. Moreover, as the size of the debt continues to grow, so does net interest on the debt. Spending on debt service will likely increase

[142] CBO, *The Budget and Economic Outlook: 2024 to 2034* (February 2024): Table 1-4, https://www.cbo.gov/system/files/2024-02/51118-2024-02-Budget-Projections.xlsx; CBO, *The Long-Term Budget Outlook: 2024 to 2054*, Table 1; CBO, Historical Budget Data, February 2024, https://www.cbo.gov/system/files/2024-02/51134-2024-02-Historical-Budget-Data.xlsx

due to interest normalization and debt maturities.[143] According to CBO, by 2052, the combination of Social Security, Medicare and net interest will be higher than total revenue.

Figure 3-2: Federal Expenditures as a Share of GDP



Source: Congressional Budget Office (CBO)

Deficits are projected to be greater than 8 percent of GDP in the next three decades, portending ever-higher debt levels. A growing public debt crowds out private capital investment, reducing growth.[144] As discussed in Chapter 1, the economic literature agrees that large government debts have severely negative effects

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[143] Low interest rates in the past two decades led many economists to dismiss the debt problem. However, for most skeptics, the rise in the rates to values above the GDP growth after the pandemic was an awakening on the true problem of the public debt.

[144] CBO, Historical Budget Data; Kent Smetters and Marcos Dinerstein, "Explainer: Capital Crowd Out Effects of Government Debt," Penn Wharton Budget Model blog, June 28, 2021, https://budgetmodel.wharton.upenn.edu/issues/2021/6/28/explainer-capital-crowd-out-effects-of-government-debt.

on GDP growth.[145] Moreover, a perceived inability by policymakers to address imprudent fiscal policy will erode the confidence of investors, who may see rising probabilities of large tax increases or even a default. Either scenario would be catastrophic, leading to economic instability and making it more difficult for the government to sell treasury securities to fund further deficit spending. These frictions in debt management would make it difficult to raise spending in response to a future global crisis, which has national security implications.[146] Moreover, the status of the dollar as the world's reserve currency gives the United States the privilege of a higher debt threshold. However, a future multipolar globe and the possibility of the erosion of the relative status of the dollar due to fiscal inflation might move the point of financial reckoning closer than anticipated.[147] The failure of the 118th Congress to implement a

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[145] Jack Salmon, "The Impact of Public Debt on Economic Growth," *Cato Journal* 41, no. 3 (2021): 487-509, https://www.cato.org/sites/cato.org/files/2021-10/cj-41n3-2.pdf.

[146] Romina Boccia and Dominik Lett, "National Security Implications of Unsustainable Spending and Debt," Cato Institute blog, July 27, 2023, https://www.cato.org/blog/national-security-implications-unsustainable-spending-debt; Government Accountability Office (GAO), "A Warning About the Nation's Fiscal Health," WatchBlog, February 16, 2024, https://www.gao.gov/blog/warning-about-nations-fiscal-health.

[147] Losing such privilege is not without precedent, as the U.K. was in a similar position in the 19th Century and first decades of the 20th Century. On fiscal inflation, see Barro and Bianchi and Dorn; on the privileged position of the U.S. on debt sustainability, see Choi et al. According to the Penn Wharton Budget Model, the United States has about 20 years until reaching the point that no fiscal policy would be able to avoid a default. Robert Barro, Francesco Bianchi, "Fiscal Influences on Inflation in OECD Countries, 2020-2022," NBER Working Paper no. 31838 (November 2023), https://doi.org/10.3386/w31838; James A. Dorn, "The Menace of Fiscal Inflation," Cato Institute blog, June 16, 2022, https://www.cato.org/blog/menace-fiscal-inflation; Jason Choi, Duong Q. Dang, Rishabh Kirpalani, and Diego J. Perez, "On Exorbitant Privilege and the Sustainability of US Public Debt,"

debt commission only lends credence to the sentiment that policymakers are unwilling to address the politically difficult fiscal problems.

Stabilizing the debt-to-GDP ratio is likely the most important policy goal the Federal government must address over the next decade. While reducing the deficit is the required course of action (reducing the growth of the numerator), these policies should not hamper economic growth (the denominator). Deficit reduction that disregards economic growth is a recipe for failure. The Biden Administration, more interested in putting the economy at the service of the state, has taken the stance that debt can be fixed by "taxing the rich" and making them pay their "fair share."[148] This is misleading; high-income individuals already pay for the vast majority of government spending; increasing taxes on this group would not raise sufficient revenue (as low as 19 percent of deficits), and the White House is overly optimistic of the effects of such policies on the economy.[149]

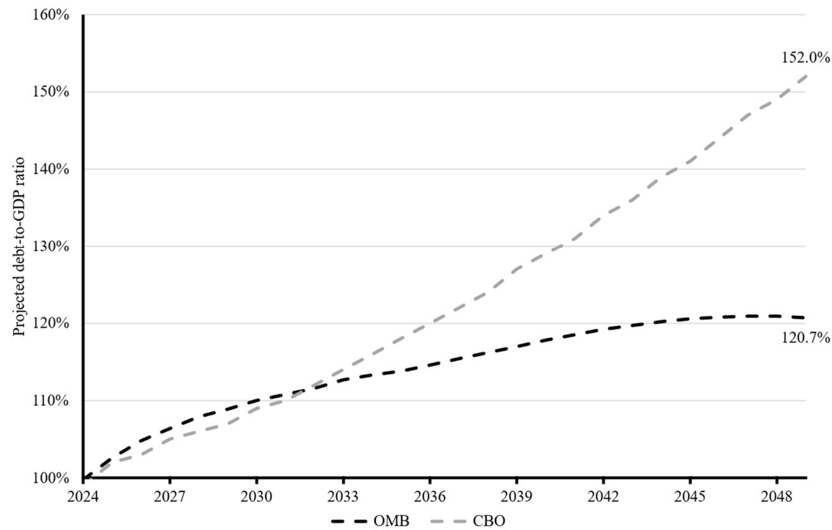
NBER Working Paper no. 32129 (February 2024), https://doi.org/10.3386/w32129; Jagadeesh Gokhale, Kent Smetters and Mariko Paulson, "When does federal debt reach unsustainable levels?", Penn Wharton Budget Model brief, October 6, 2023. https://budgetmodel.wharton.upenn.edu/issues/2023/10/6/when-does-federal-debt-reach-unsustainable-levels.

[148] Office of Management and Budget (OMB), *Budget of the U.S. Government Fiscal Year 2025*, (The White House, 2024): 8, 15, 19, 20, 45, 46, 47, 78, 133, 138, 139, 145, 149, https://www.whitehouse.gov/wp-content/uploads/2024/03/budget_fy2025.pdf.

[149] Calculation based on Brian Riedl's lower bound estimation of 1.1 percent reduction in deficit, divided by the 5.7 percent of GDP deficit estimation by CBO. Brian Riedl, "The Limits of Taxing the Rich," Manhattan Institute report (September 2023), https://manhattan.institute/article/the-limits-of-taxing-the-rich; CBO, *The Budget and Economic Outlook: 2024 to 2034*.

This Chapter explores the limits of the “taxing the rich” approach to balancing the fiscal situation by first looking at the issue across each type of tax, then determining that these shortcomings are more evident when examined at a macro level. Finally, we briefly discuss the advantages of instead taking prudent approaches to fiscal consolidation.

Figure 3-3: Differences between OMB and CBO Debt-to-GDP Projections



Source: Congressional Budget Office (CBO); Office of Management and Budget (OMB)

The Limits of Taxing the Rich

As the public and their elected representatives have become more cognizant of the deteriorating fiscal situation, there has been an increased interest in policy solutions, with ubiquitous cries among the left to “tax the rich.” Given the allure of having someone else pay to solve the nation’s fiscal concerns, perhaps it is unsurprising the Biden Administration targets successful businesses and higher income individuals in its proposals to raise revenue. With the magnitude and path of deficits, merely taxing the rich will be insufficient to fully address the country’s fiscal concerns. “Tax the

rich" is inflammatory political rhetoric, not rational economic policy. Economic theory supports the idea that there are limits to the revenue raised from higher tax rates, and estimates of the revenue raised as a percentage of GDP from taxing the rich are low. These limits differ by country and change over time, and, while they could improve the country's finances, they come at a great cost for private businesses and households. Furthermore, their estimations could vary widely, depending on the assumptions of the public's reaction to changes in tax rates.

Laffer Curve

One well-examined theory illustrating the relationship between tax rates and revenue raised is the Laffer curve. Developed by economist Arthur Laffer, the concept begins with the premise that both at a tax rate of 0 and at a rate of 100 percent, there will be no revenue raised. This is because the taxed market activity would be unprofitable and thus cease to continue. Tax rates between these two points would generate varying levels of revenue. Increases in tax rates would generate more revenue only up to a certain level, beyond which any increase in rates would result in less in revenue because economic activity would decline.[150] Its shape further suggests that each additional tax dollar results in a larger loss for the economy. The shape of the Laffer curve is a function of taxable income elasticity (or the sensitivity to a change in tax rates). As discussed later in the Chapter, there are diverging opinions on this elasticity, which lead to different estimations of the optimum tax rate. The revenue-maximizing tax rate depends on economic conditions, the rates of other taxes, the possibility for an amount of tax avoidance, and other factors, but—contrary to some

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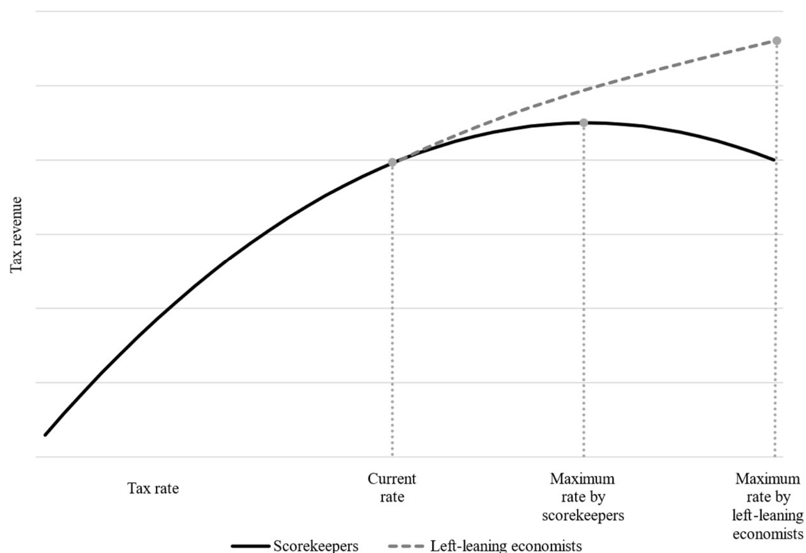
[150] Art Laffer, "Laffer Curve Napkin," National Museum of American History, September 14, 1974, https://americanhistory.si.edu/collections/nmah_1439217.

policymakers' beliefs—evidence supports the premise that taxes can only be raised so high to maximize revenue.[151]

Figure 3-4: Diverging Views on the Laffer Curve



The U.S. Tax System is Highly Progressive

While a key justification for targeting businesses and high-income individuals with higher effective tax rates is the need to raise revenue, the idea of equity buttresses the policy. Specifically, there is a perception that high-income individuals pay less than their "fair share."[152] In 2019, the top 1 percent paid over 20 percent of

[151] The JEC Republicans avoid using the term 'optimal rate,' as included in part of the literature, because a tax rate maximizing the size of the government cannot be considered optimal.

[152] The meaning of what is "fair" is uncertain. This term is repeated throughout every economic document released by The White House; see, for example: OMB, *Budget of the U.S. Government Fiscal Year 2025*, 8, 15, 19, 20, 45, 46, 47, 78, 133, 138, 139, 145, 149.

all Federal taxes and almost 40 percent of all income tax.[153] Notably, the Tax Cuts and Jobs Act of 2017 (TCJA) made the U.S. tax code more progressive. The same data from CBO show that the ratios of Federal tax liabilities paid by the upper percentiles was higher in every year after the passage of the law in 2017. Moreover, the Congressional Budget Office estimates that, while the top quintile earns almost 60 percent of all income, after taxes and transfers that percentage drops under 50 percent, while every quintile in the bottom 80 percent sees an increase in their shares (see Figure 3-6).[154] While the concept of decreasing marginal utility of income—that a rich person would value less an additional dollar than someone poorer—supports taxing the wealthy to reduce the budget deficit, the U.S. already maintains one of the most progressive tax systems among developed nations.[155] Given the degree of progressivity, it is critical to question whether further steepening would generate the purported revenue, or, alternatively, what level of income would be classified as "rich" and therefore subject to higher taxation, to close the chasm between projected receipts and expenditures.

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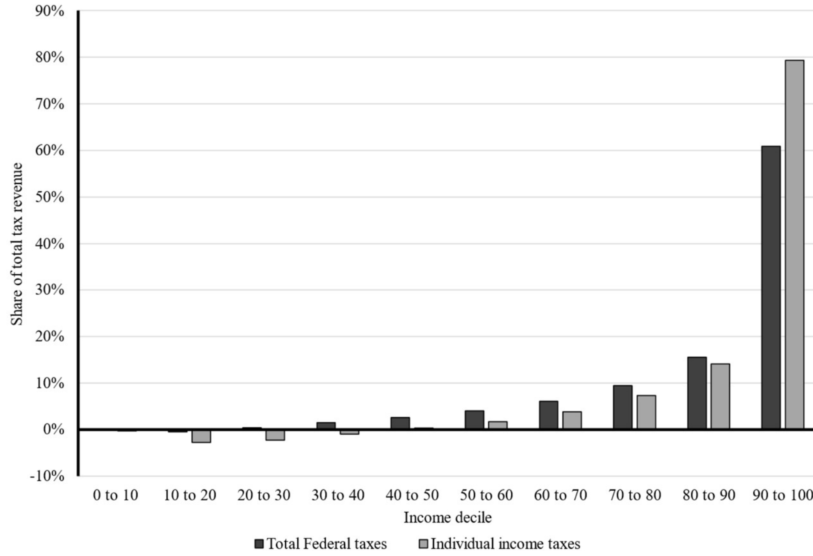
[153] CBO, *The Distribution of Household Income in 2020,* November 2023. https://www.cbo.gov/publication/59509

[154] CBO, *The Distribution of Household Income in 2020*

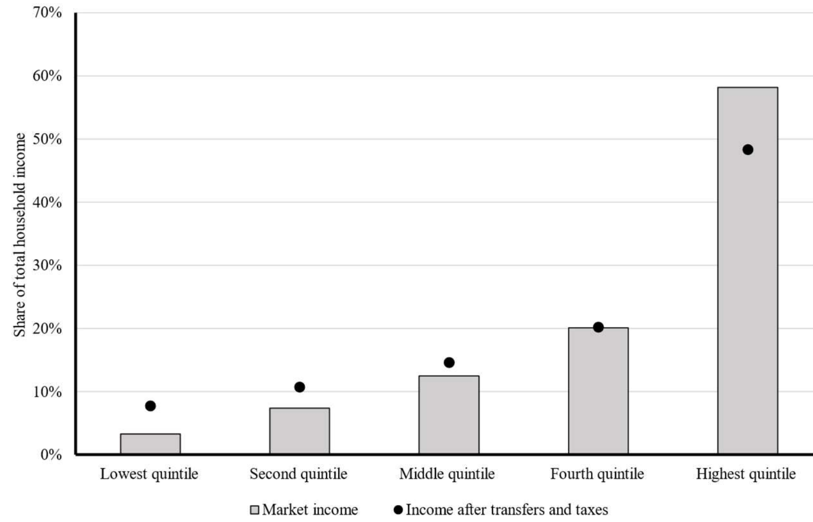
[155] Joint Economic Committee (JEC) Republicans, *Republican Response to the Economic Report of the President* (U.S. Congress, 2023), https://sen.gov/LVQYY; Thomas Blanchet, Lucas Chancel, and Amory Gethin, "Why Is Europe More Equal than the United States?" *American Economic Journal: Applied Economics* 14, no. 4 (2022): 480-518, https://doi.org/10.1257/app.20200703.

Figure 3-5: Share of Tax Liability by Income Decile, 2024



Source: U.S. Department of the Treasury, Office of Tax Analysis

Figure 3-6: Comparing the Distribution of Household Income before and after Transfers and Taxes, 2019



Source: Congressional Budget Office (CBO) "The Distribution of Household Income in 2020"

Box 3-1: The Importance of State and Local Taxes in the Analysis

Most discussions on taxes focus on the Federal level. An analysis including all levels for each type of tax would include multiple rates, in some cases, one for each municipality in the country. The Federal government lacks authority over state and local taxes but including state and local taxes is important when discussing average households' tax burden and distributional aspects.

There is an abundant heterogeneity of tax codes between states and localities. For example, while approximately 11.2 percent of household income is paid in taxes by state and local governments, this range varies from 7.4 percent in Wyoming to 15.9 percent in New York.[156] The heterogeneity is not only in rates but also in composition. States like Nevada and Washington rely heavily on sales taxes, while others like Montana do not tax consumption, relying on revenue from property and income.[157] This heterogeneity also opens the possibility for individuals to avoid heavier tax burdens by moving across state lines.[158]

State and local taxes represent over 30 percent of all U.S. tax revenue, placing it in the top five for this metric among developed

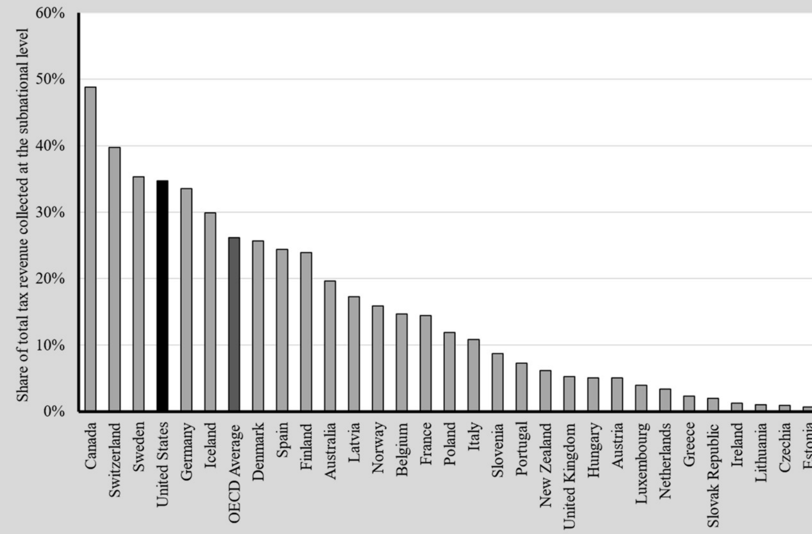
[156] Note that Alaska has a lower rate (4.9 percent) but the state receives high rate of federal subsidies, not making it useful for comparison. Tax Foundation, *Facts & Figures 2024: How Does Your State Compare?* (April 2024): Table 2, https://taxfoundation.org/wp-content/uploads/2024/04/Facts-and-Figures-How-Does-Your-State-Compare-Tax-Foundation-2.pdf.

[157] Tax Foundation, *Facts & Figures 2024*, Table 7.

[158] Jorge Barro, "Domestic Migration and State Tax Policy," Rice University's Baker Institute for Public Policy Center for Public Finance issue brief (August 12, 2022), https://www.bakerinstitute.org/research/domestic-migration-and-state-tax-policy-0.

countries.[159] Moreover, while the U.S. is often criticized for collecting a relatively small share of taxes on income compared to peer countries, after accounting for state and local taxes it shifts to the middle of the distribution.[160]

Figure 3-7: Share of Total Tax Revenue Collected at State and Local Levels



Source: OECD Revenue Statistics 2023

[159] Organisation for Economic Co-operation and Development (OECD), "Effective Tax Rates," OECD.Stat, accessed May 8, 2024, https://stats.oecd.org/index.aspx?DataSetCode=CTS_ETR.

[160] Excluding the collection of regressive taxes and considering only those based on income and property.

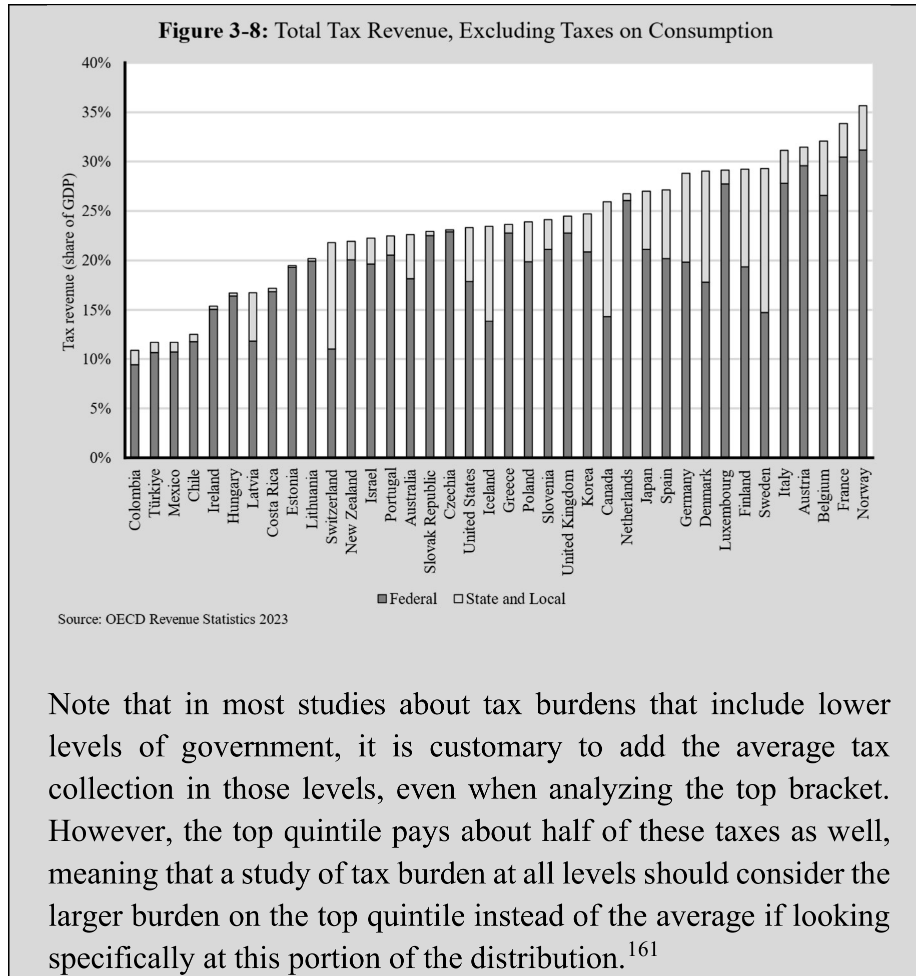


Figure 3-8: Total Tax Revenue, Excluding Taxes on Consumption

Source: OECD Revenue Statistics 2023

Note that in most studies about tax burdens that include lower levels of government, it is customary to add the average tax collection in those levels, even when analyzing the top bracket. However, the top quintile pays about half of these taxes as well, meaning that a study of tax burden at all levels should consider the larger burden on the top quintile instead of the average if looking specifically at this portion of the distribution.[161]

[161] Nevertheless, the same study shows that while the tax burden is higher for the top quintiles, state and local taxes are easier to transfer to consumers and wages, transforming its distribution into a flat one when looking at its incidence. Timothy Vermeer, Alex Durante, Erica York, and Jared Walczak, "America's Progressive Tax and Transfer System: Federal, State, and Local Tax and Transfer Distributions," Tax Foundation, March 30, 2023, https://taxfoundation.org/research/all/federal/who-pays-taxes-federal-state-local-tax-burden-transfers/.

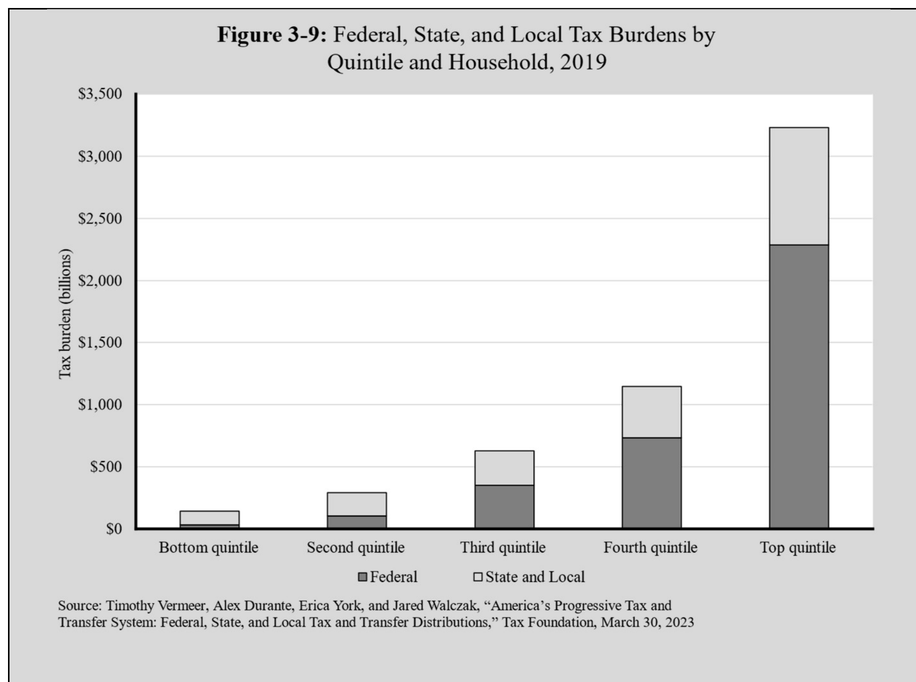


Figure 3-9: Federal, State, and Local Tax Burdens by Quintile and Household, 2019

Source: Timothy Vermeer, Alex Durante, Erica York, and Jared Walczak, "America's Progressive Tax and Transfer System: Federal, State, and Local Tax and Transfer Distributions," Tax Foundation, March 30, 2023

Biden Administration Tax Proposals

In March 2024, the White House released the Biden Administration's FY2025 Budget.[162] Its purported objective of stabilizing the debt-to-GDP ratio is laudable, however, the Administration's proposals warrant critique. First, as discussed above, tying tax increases to making successful businesses and affluent individuals "pay their fair share" reinforces misconceptions about the true distribution of the tax burden, especially when using misleading statistics to distort reality.[163]

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[162] OMB, *Budget of the U.S. Government Fiscal Year 2025*.

[163] Note, however, that OMB projects that the baseline debt-to-GDP would stabilize organically by 2048, which is very different than the nonstop growth projected by CBO. OMB, *Budget of the U.S. Government Fiscal Year 2025*, Table S-1; OMB, *Analytical Perspectives Budget of the U.S. Government Fiscal Year 2025* (The

Second, there is uncertainty about the size of the revenues that the proposed tax increases would generate. Taken together with the Administration's record of implementing spending that costs more than estimated at enactment, there is a reasonable risk that its policies will exacerbate rather than relieve fiscal pressures.[164] Third, large tax increases severely harm economic growth and could be counterproductive to stabilizing debt ratios and supporting investments that may make disruptive discoveries that could drastically improve Americans' quality of life.

The tax policy proposed in the FY2025 Budget would make the U.S. one of the most heavily taxed countries in the developed world. Presently, the country's statutory top marginal corporate tax rate is approximately 25.8 percent (including the average state corporate tax), which, in comparison to European countries, would make it the seventh-highest country out of 52.[165] If corporate

White House, 2024): 20, https://www.whitehouse.gov/wp-content/uploads/2024/03/spec_fy2025.pdf; Glenn Kessler, "Biden keeps saying billionaires pay 8 percent in taxes. Not really," *The Washington Post*, January 23, 2024, https://www.washingtonpost.com/politics/2024/01/23/biden-keeps-saying-billionaires-pay-8-percent-taxes-not-really/.

[164] Estimates that extending all provisions from TCJA would cost more than 3.4 trillion through 2033. Additionally, the original costs related to the Inflation Reduction Act were underestimated. Note also that recent increases in the interest rates have (unanticipatedly) contributed significantly to the level spending. CBO, "Budgetary Outcomes Under Alternative Assumptions About Spending and Revenues," CBO report (May 2023), https://www.cbo.gov/publication/59154#data; Travis Fisher, "The Inflation Reduction Act's Energy Subsidies Are More Expensive Than You Think," Cato Institute blog, September 2023, https://www.cato.org/blog/iras-energy-subsidies-are-more-expensive-you-think.

[165] Cristina Enache, "Corporate Tax Rates around the World, 2023," Tax Foundation (December 12, 2023), https://taxfoundation.org/data/all/global/corporate-tax-rates-by-country-2023/.

income tax rates rose to 28 percent, as proposed in the President's Budget, the combined Federal and state rate would be 32.8 percent. This would bring the U.S. to the second-highest rate when compared to European countries. Moreover, the FY2025 Budget proposes raising long-term capital gains taxes to 44.6 percent, which is higher than Denmark, the highest rate in Europe at 42 percent. [166]

In addition to the high tax rates, the Budget also relies on unrealistic assumptions to generate rosy results.[167] First, the Budget projects no changes in revenue and spending on Social Security, unemployment insurance, and customs duties despite the vast increase in taxes and social spending.[168] The projections fail to reflect the repercussions on retirement, employment, and life expectancy.[169]

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[166] U.S. Department of the Treasury, *General Explanations of the Administration's Fiscal Year 2025 Revenue Proposals* (March 11, 2024), https://home.treasury.gov/system/files/131/General-Explanations-FY2025.pdf; Alex Mengden, "Capital Gains Tax Rates in Europe, 2024," Tax Foundation Europe (March 12, 2024), https://taxfoundation.org/data/all/eu/capital-gains-tax-rates-in-europe-2024/.

[167] James C. Capretta, "The Biden Administration's 2025 Budget," American Enterprise Institute AEIdeas, March 12, 2024, https://www.aei.org/health-care/the-biden-administrations-2025-budget/.

[168] Compare Tables S-3 and S-4. OMB, *Budget of the U.S. Government Fiscal Year 2025*.

[169] There are many other aspects worth analyzing but they are unrelated to taxation. For example, under current law, spending on defense is scheduled to decrease as a share of GDP to a record low of 2.4 percent, which might not be the most likely scenario as global tensions continue to mount. Additionally, a more qualitative criticism could be made to the proposed transfer of several programs from discretionary to mandatory spending, curtailing the power of the purse given to Congress by the Constitution.

Second, the White House projects no significant effect from the proposed tax policies on growth. Meanwhile, outside analyses predict a drop in the long-run GDP of more than two percent due in large part to notable declines in capital, employment, and wages.[170] A slower economy means households are relatively poorer, implying a smaller tax base. According to the Tax Foundation, the proposals in the Budget would only reduce the deficit by $1.4 trillion over the next 11 years, which is less than half of what the White House Office of Management and Budget (OMB) estimates.[171] The lack of pro-growth policy measures will only widen this gap further in the long run.

It is concerning that the Administration's proposals ignore that changes to taxation distort economic behavior and can ultimately slow growth. Most taxes are not neutral and change the relative cost of labor and consumption, impacting individual decision-making. This can have large-scale effects on investment and labor participation when aggregated to the scale of the macroeconomy. These omissions in their analysis are particularly important when the policies proposed include significant new taxes whose effects are not independent. Additionally, the burden of tax incidence trickles down to consumers and workers.

This criticism is not unique to the White House's economic team. Most of the academic research by left-leaning economists related to increasing tax revenue share similar flaws in their analysis. Many greatly underestimate the response from the private sector

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[170] Garrett Watson, Erica York, William McBride, Alex Muresianu, Huaqun Li, and Alex Durante, "Details and Analysis of President Biden's Fiscal Year 2025 Budget Proposal," Tax Foundation (March 22, 2024), https://taxfoundation.org/research/all/federal/biden-budget-2025-tax-proposals/.

[171] Watson, York, McBride, Muresianu, Li, and Durante, "Details and Analysis."

with regards to the decrease in earnings and omit the interactions of different proposals when aggregating their effects.[172] Furthermore, despite their optimism, none of these studies find that when incorporating economic effects of higher taxes, there will be enough revenues collected to stabilize the debt-to-GDP ratio in the long term. JEC Republicans estimate that, to keep that ratio at 100 percent, the primary deficit (revenue minus non-

[172] Most of these papers share many of the provisions that President Biden proposed since his time as a candidate, and the proposals are a response to TCJA. In general, they raise taxes on corporations in similar ways as in the President's Budget without measures to mitigate GDP growth slowdown. In particular, Batchelder and Kamin also add a surtax to high incomes and propose expanding the estate tax while eliminating the step-up basis, and therefore double taxing part of the inherited wealth. Sarin and Summers propose similar changes and add an additional $400 billion in revenue by investing $20 billion in the IRS. However, those proposals only raise 1.1 percent of GDP. Notice that when these papers were written, the budget deficit had been at an average slightly over 3.1 percent in the previous five years. Clausing and Sarin proposed a tax reform that include a subset of those FY 2025 reforms and add a Financial Transactions tax and Corporate Carbon Fees (and also revenue neutral changes to TCJA and expansion of tax credits) that would raise almost $5 trillion dollars ($3.5 trillion net of additional spending, or 1.1 percent of GDP). While they propose restoring expensing for research and experimentation, this is not enough to prevent a slowdown in the economy. For reasons explained below, this *Response* leaves out of consideration proposals that include taxes on wealth or on unrealized gains that are almost impossible to implement and have the potential of seriously harming the economy. Lily Batchelder and David Kamin, "Taxing the Rich: Issues and Options" (September 2019), https://doi.org/10.2139/ssrn.3452274; Natasha Sarin and Lawrence Summers, "A broader tax base that closes loopholes would raise more money than the plans by Ocasio-Cortez and Warren," *The Boston Globe*, March 28, 2019, https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/Broader%20tax%20base%2C%20Summers.pdf; Kimberly A. Clausing and Natasha Sarin, "The coming fiscal cliff: A blueprint for tax reform in 2025," The Hamilton Project paper (September 2023), https://www.hamiltonproject.org/wp-content/uploads/2023/09/20230927_THP_SarinClausing_FullPaper_Tax.pdf.

interest spending) needs to decrease between 1 percent of GDP in 2025 to 2.5 percent in 2054.[173] Notably, this is a low estimate that assumes spending continues as projected under current law. A more likely scenario would incorporate at least some incremental spending from new programs, the renewal of expiring ones, and other additional costs to current policies.[174] An underestimation of future deficits will require larger reductions to stabilize it. Furthermore, any delay in fiscal consolidation would stabilize the debt at a higher level, increasing the cost of net interest payments which would require a larger reduction of the deficit.

Calls to Increase Corporate Income Taxes

The President's FY2025 revenue proposals include a variety of reforms to business taxation.[175] About half of the $2.7 trillion in additional taxes on businesses is expected to come from an increase in the corporate income tax rate from 21 to 28 percent.[176] The 2023 *Response* discusses the shortcomings of the corporate tax proposals in the President's FY2024 Budget.[177] As the corporate tax proposals in the President's FY2025 Budget are

[173] JEC Republicans calculations are based on CBO's long-term budget projections. These calculations account for the reduction in the deficit after certain provisions from TCJA phase out. CBO, *The Long-Term Budget Outlook: 2024 to 2054*.

[174] Estimates that extend all provisions from TCJA would cost more than 3.4 trillion through 2033. Additionally, the original costs related to the Inflation Reduction Act were underestimated. Note also that recent increases in the interest rates have contributed significantly to the level spending. CBO, "Budgetary Outcomes Under Alternative Assumptions;" Fisher, "The Inflation Reduction Act's Energy Subsidies Are More Expensive Than You Think."

[175] U.S. Treasury, *General Explanations FY2025*.

[176] OMB, *Budget of the U.S. Government Fiscal Year 2025*, 45.

[177] Note that most of the largest provisions in FY2025 are the same as FY2024, so the analysis done applies to this year as well. JEC Republicans, *Response*, 62-92.

almost identical to the previous year's, the sentiments presented in last year's *Response* are also applicable.[178]

The policies:

- reduce incentives to invest, hampering growth and delaying technological advances;
- distort the types of business that are viable;
- incentivize profit shifting and relocation overseas;
- have a substantial incidence on wages of all quintiles, reducing employment;
- tax the same income twice; and
- reduce the volume of long-term investments as investors anticipate a probable tax hike. That is, GDP growth may slow even if the tax hike never materializes.

Corporate income taxes are levied on the earnings of businesses structured as corporations and are distinct from the taxes applicable to businesses structured as pass-through entities. The Administration cites administrative simplicity of a corporate tax increase and increasing progressivity of the tax code as primary reasons for their revenue proposal.[179] The statement on the simplicity of the tax to raise revenue is at odds with the Administration proposing over 25 additional measures to prevent tax avoidance, including an increase in the corporate alternative minimum tax rate.[180] On top of this, empirical research show that

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[178] OMB, *Budget of the U.S. Government Fiscal Year 2025*, Tables S-1 and S-9; JEC Republicans, *Response*

[179] U.S. Treasury, *General Explanations FY2025*.

[180] Business practices are complex and can lead to different tax rates, depending on the type of corporation (C-type or pass through), origin of the profits, type of financing, type of costs, etc. Increasing the complexity of the tax code makes it easier to find paths for tax avoidance.

labor bears a significant amount of the corporate tax burden, between 20 and 70 percent.[181]

The Tax Foundation finds that raising the corporate tax rate to 28 percent would reduce long-run GDP by 0.9 percent, the capital stock by 1.7 percent, wages by 0.8 percent, and full-time equivalent jobs by 192,000.[182] The additional measures in the Budget would exacerbate this effect. Some of these changes would apply only to domestic firms and not to foreign, creating incentives for U.S. corporations to move their headquarters overseas, merge with foreign corporations, and sell their assets to foreign investors, resulting in a reduction of the domestic stock of capital, which is an essential component of economic growth.[183] Moreover, while profit shifting (that is, the practice of moving intangible capital to low-tax countries) is often seen as negative, there is evidence that, in its absence, new taxes could have a much

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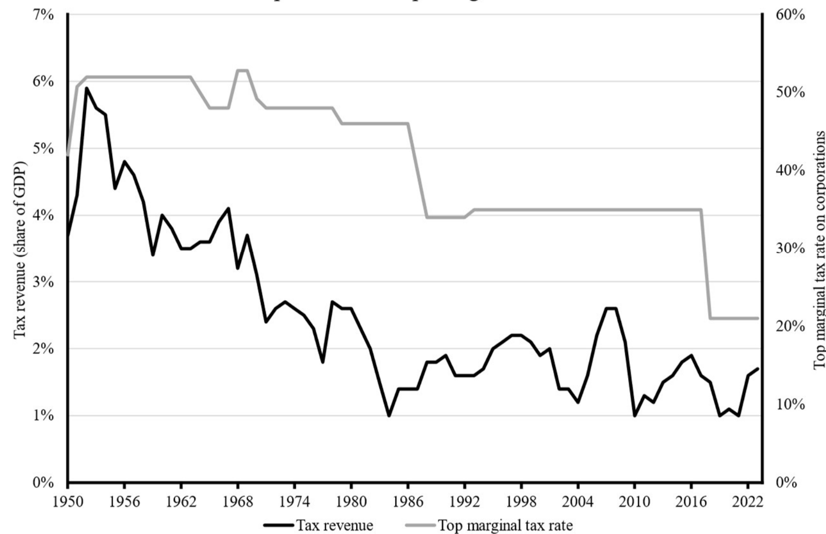
[181] Stephen J. Entin, "Labor Bears Much of the Cost of the Corporate Tax," Tax Foundation Special Report no. 238 (October 2017), https://files.taxfoundation.org/20181107145034/Tax-Foundation-SR2382.pdf; James R. Nunns, "How TPC Distributes the Corporate Income Tax," Tax Policy Center (September 13, 2012), https://taxpolicycenter.org/publications/how-tpc-distributes-corporate-income-tax.

[182] Watson, York, McBride, Muresianu, Li, and Durante, "Details and Analysis."

[183] Kyle Pomerleau, "Biden's Reforms to the Tax Treatment of US Multinational Corporations: The Knowns and Unknowns," American Enterprise Institute Economic Perspectives (July 20, 2021), https://www.aei.org/research-products/report/bidens-reforms-to-the-tax-treatment-of-us-multinational-corporations-the-knowns-and-unknowns/; Cody Kallen, "Effects of Proposed International tax Changes on U.S. Multinationals," Tax Foundation Fiscal Fact, no. 761 (April 2021), https://files.taxfoundation.org/20210427161012/Effects-of-Proposed-International-Tax-Changes-on-U.S.-Multinationals.pdf; Pomerleau, "Biden's Reforms to the Tax Treatment of US Multinational Corporations."

larger negative impact on employment, wages and investment.[184] Expecting no reaction from the business sector to a large reduction in their returns to investment is contrary to one of the most fundamental concepts in economics.

Figure 3-10: Corporate Income Tax Revenue as a Share of GDP Compared to the Top Marginal Tax Rate



Source: Office of Management and Budget (OMB); U.S. Department of the Treasury, Office of Tax Analysis

Furthermore, historical data shows that increases in corporate tax rates do not meaningfully increase receipts (see Figure 3-10).[185]

[184] In this paper, the author warns that preventing multinationals from using tax shelters might have serious impact on investment and employment, that is not prevalent when this option is available.; Juan Carlos Suárez Serrato, "Unintended Consequences of Eliminating Tax Havens," NBER Working Paper no. 24850 (July 2018), https://doi.org/10.3386/w24850.

[185] Note that the corporate tax rate is not the only determinant of the tax revenue. Changes in legislation other than the rate (tax credits and exemptions, for example) affect revenue. However, according to Auerbach and Poterba, the main determinant behind the drop in revenue in the three decades before the 1980s was a drop in the corporations' margin of profits.; Alan J. Auerbach and James M.

Advocates for raising the corporate tax rate often make the argument that revenue from this form of tax as a share of GDP is significantly lower than in other developed economies.[186] While this may be the case, the U.S. has relatively more pass-through companies and relatively fewer corporations than peer countries.[187] Kyle Pomerleau and Donald Schneider estimate that if the rest of the OECD had the same corporate composition as the U.S., the U.S. would fall near the median. Notably, by international standards, the U.S. does not have a low corporate tax rate and raising it would make the country notably less competitive than its peers.[188]

Given the swath of evidence of the limited positive and broad negative effects, proposals to raise such a large amount of taxes from corporations are ill-advised. They would only encourage

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Poterba, "Why Have Corporate Tax Revenues Declined?" *Tax Policy and the Economy* 1 (1987): 1-28, https://doi.org/10.1086/tpe.1.20061761.

[186] Jason Furman, "How to increase growth while raising revenue: Reforming the corporate tax code," The Hamilton Project, (January 28, 2020), https://www.hamiltonproject.org/wp-content/uploads/2023/01/Furman_LO_FINAL.pdf.

[187] While in 1980 about three-quarters of business income was originated in C-corporations, by the 2010s this was under one-half, with most of the remainder split between partnerships and S-corporations. Note that many of the new pass-through businesses are just individuals who formed a business to manage their personal investments at a lower tax rate. The authors also find that some of the partnerships taxed at a lower rate are part of clusters of partnerships partially owned by each other, such that it is difficult to identify the true ownership of these companies.; Kyle Pomerleau and Donald Schneider, "The Biden Administration's Corporate Tax Statistic Is Misleading," *Bloomberg Tax*, April 16, 2021, https://news.bloombergtax.com/daily-tax-report/the-biden-administrations-corporate-tax-statistic-is-misleading; Michael Cooper et al., "Business in the United States: Who Owns It, and How Much Tax Do They Pay?" *Tax Policy and the Economy* 30, no. 1 (2016): 91-128, https://doi.org/10.1086/685594.

[188] Enache, "Corporate Tax Rates around the World, 2023."

relocation of companies, reduce capital formation, growth and employment, all while having a negligible impact on deficit reduction, reversing many of the achievements of the TCJA.

Increase in Personal Income Taxes

The Biden Administration proposes raising over $1.8 trillion in additional personal income taxes.[189] Part of this increase comes from restoring the top marginal rate to 39.6 percent, a reform of the capital gains tax, and an expansion of the net investment income tax.[190] Notably, it also plans to impose a minimum tax of 25 percent (inclusive of unrealized capital gains) on taxpayers with a net worth of $100 million or more. As with the proposed corporate tax increases, the Biden Administration reinforces the misconception that many Americans do not "pay their fair share," citing progressivity and redistribution as motives for their proposals.

The expectation of increasing tax collections by returning to pre-Reagan Administration-era tax rates is based on misguided academic research that estimates a maximum rate of up to 70 percent, but such research is based on unrealistic assumptions.[191]

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[189] Note that when adding the changes in estate tax and additional collections from the expansion of the IRS, this value would be closer to 2.2 trillion. These proposals are also a repeat from previous Budgets. U.S. Treasury, *General Explanations FY2025*.

[190] The two main changes regarding capital gains are taxing high-income earners at ordinary rates and realizing the capital income at death or donation.

[191] Vanessa Williams, "Alexandria Ocasio-Cortez's 70 percent tax on the rich isn't about revenue, it's about decreasing inequality," *NBC News Think*, January 26, 2019, https://www.nbcnews.com/think/opinion/alexandria-ocasio-cortez-s-70-percent-tax-rich-isn-t-ncna963146; Alan Cole and Scott Greenberg, "Details and Analysis of Senator Bernie Sanders's Tax Plan," Tax Foundation (January 28, 2016),

Raising the top statutory marginal tax rate is a suboptimal policy response to the burgeoning Federal debt for various reasons.[192]

The relatively modest revenue projected to be raised is consistent with the effects of past tax rate changes. While income tax rates have generally declined over the past 45 years, tax revenue as a share of the economy has remained relatively stable (see Figure 3-11). This may result from a greater incentive for skilled tax planning, with higher rates raising the incentive for tax avoidance, increasing the deadweight loss from this form of tax.[193] This problem is particularly pertinent for states with high top-end rates, where total taxes for high earners already surpass 50 percent,

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https://taxfoundation.org/research/all/federal/senator-bernie-sanders-tax-plan-2016/; Peter Diamond and Emmanuel Saez, "The Case for a Progressive Tax: From Basic Research to Policy Recommendations," *Journal of Economic Perspectives* 25, no. 4 (2011): 165-90, https://doi.org/10.1257/jep.25.4.165; Aparna Mathur, Michael R. Strain, and Sita Nataraj Slavov, "Should the Top Marginal Income Tax Rate Be 73 Percent?", American Enterprise Institute Tax Notes (November 19, 2012), https://www.aei.org/wp-content/uploads/2012/11/-should-the-top-marginal-income-tax-rate-be-73-percent_085518416524.pdf?x85095.

[192] Note that the top marginal rate is expected to go back to 39.6 percent in January 2026 when some provisions from the TCJA expire.

[193] The size of this deadweight cost is disputed by Raj Chetty, although he does not dispute the high sensitivity to marginal tax rates by those prone to tax avoidance. Also note that a high rate would increase tax evasion, as some individuals would find it less costly to run the risk of illegally not paying taxes, but this is not easy to estimate. Martin Feldstein, "Tax Avoidance and the Deadweight Loss of the Income Tax," *The Review of Economics and Statistics* 81, no. 4 (1999): 674-80, https://doi.org/10.1162/003465399558391; Raj Chetty, "Is the Taxable Income Elasticity Sufficient to Calculate Deadweight Loss? The Implications of Evasion and Avoidance," *American Economic Journal: Economic Policy* 1, no. 2 (2009): 31-52, https://doi.org/10.1257/pol.1.2.31.

making them among the most heavily taxed in the developed world.[194]

Figure 3-11: Personal Income Tax Revenue as a Share of GDP Compared to the Top Marginal Tax Rate

Source: Office of Management and Budget (OMB); U.S. Department of the Treasury, Office of Tax Analysis

Taxing capital gains is central to left-leaning tax reform agendas for various reasons. First, it applies mostly to the wealthy. It is a negligible part of most households' income, but about half for those with an AGI of $10 million and above.[195] Second, the tax

[194] Alex Mengden, "Top Personal Income Tax Rates in Europe, 2024," Tax Foundation Europe (February 13, 2024), https://taxfoundation.org/data/all/eu/top-personal-income-tax-rates-europe-2024/; Andrey Yushkov, "State Individual Income Tax Rates and Brackets, 2024," Tax Foundation (February 20, 2024), https://taxfoundation.org/data/all/state/state-income-tax-rates-2024/.

[195] According to the latest data from the IRS, this value is above 57 percent, but the two years when COVID-19 hit the hardest on the economy were atypical. Internal Revenue Service, *Statistics of Income —2021 Individual Income Tax Returns* (U.S. Department of the Treasury, 2021), Table 1.4, https://www.irs.gov/pub/irs-pdf/p1304.pdf; John Ricco, "The Revenue-Maximizing Capital Gains Tax Rate: With and

rate on long-term investments is lower than for ordinary income. Third, the tax is paid upon realization, meaning that some gains go untaxed indefinitely if the asset is not sold.[196] Moreover, if the person dies or donates the asset to charity, the gains are reset; the recipient never pays taxes on them. The reforms proposed not only seek to raise the rates but are also a response to an impatient desire to tax gains before realization.

However, there is uncertainty as to the revenue that would be raised from an increase in the capital gains tax rate. As with other taxes, there is some evidence that tax revenue would increase, but collection also depends on the frequency of the realizations.[197] The sensitivity of the gains realized to changes in the tax is measured by the "elasticity of realization."[198] On the aggressive end of estimates, a recent study by Agersnap and Zidar find this elasticity to be between -0.5 and -0.3, meaning that the maximum rate for capital gains is somewhere between 38 and 47 percent.[199] Their findings indicate that an increase of 5 percentage points in the

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Without Stepped-up Basis at Death," Penn Wharton Budget Model blog, December 4, 2019, https://budgetmodel.wharton.upenn.edu/issues/2019/12/4/the-revenue-maximizing-capital-gains-tax-rate-with-and-without-stepped-up-basis-at-death.

[196] Batchelder and Kamin, "Taxing the Rich."

[197] For example, a profitable portfolio taxed at a 100 percent rate has no incentive to be sold and, therefore, will not collect any tax.

[198] The percent change in amount realized given a 1 percent change in the tax rate.

[199] Note that some of these papers express the results in dollar value. Given that the goal is to compare the effects regardless of when the studies were made, we transformed the values to percentage of GDP. Ole Agersnap and Owen Zidar, "The Tax Elasticity of Capital Gains and Revenue-Maximizing Rates," *American Economic Review: Insights* 3, no. 4 (2021): 399-416, https://doi.org/10.1257/aeri.20200535; Natasha Sarin, Lawrence H. Summers, Owen M. Zidar, and Eric Zwick, "Rethinking How We Score Capital Gains Tax Reform," NBER Working Paper no. 28362 (January 2021), https://doi.org/10.3386/w28362.

capital gains tax rate would yield $18 to $30 billion in annual Federal tax revenue (0.08 to 0.13 percent of GDP in 2021). Note that their estimations have a large margin of error, with the true maximum rate being somewhere between 0 and 94 percent.[200] Sarin, Summers, Zidar and Zwick, using these estimations, calculate that, given that a sizeable portion of the capital is invested in fixed terms, raising the rate to 40 percent can raise an additional 0.4 percent of GDP in revenue, which is still far short of the magnitude of the deficit.[201]

Nevertheless, these findings are outliers. Scorekeepers (such as CBO and JCT) and most research find that most capital investment is very sensitive to changes in the tax rate, with the maximum revenue-raising rate being around 30 percent.[202] There are several reasons to believe that the current rate is close to the maximum rate. The historical data is not consistent with the assertion that raising rates would increase revenue, as shown in Figure 3-12

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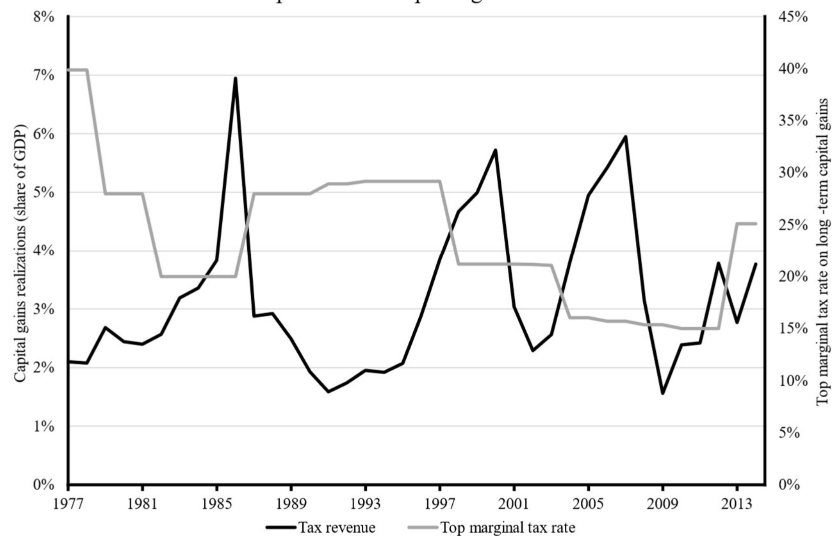
[200] Robert McClelland, "A New Study Suggests Congress Could Raise Money By Increasing Capital Gains Tax Rates To 47 Percent. But There Is A Catch," Tax Policy Center TaxVox, September 16, 2020, https://www.taxpolicycenter.org/taxvox/new-study-suggests-congress-could-raise-money-increasing-capital-gains-tax-rates-47-percent.

[201] Sarin, Summers, Zidar, and Zwick, "Rethinking How We Score Capital Gains Tax Reform."

[202] However, John Ricco estimates that the rate could go from 33 percent to 42 percent if stepped-up basis at death is eliminated. Timothy Dowd and Robert McClelland, "The Bunching of Capital Gains Realizations," Tax Policy Center research report (February 7, 2017), https://www.taxpolicycenter.org/publications/bunching-capital-gains-realizations/full; Joint Committee on Taxation, *New Evidence on the Tax Elasticity of Capital Gains: A Joint Working Paper of the Staff of the Joint Committee on Taxation and the Congressional Budget Office* (JCX-56-12) (June 2012), https://www.jct.gov/getattachment/c0efd05d-a7a4-47b6-91cf-a9981301d97d/x-56-12-4472.pdf; John Ricco, "The Revenue-Maximizing Capital Gains Tax Rate: With and Without Stepped-up Basis at Death."

below. Moreover, while a sizeable portion of capital investment is indeed inelastic to changes in the rate, this is because the majority of stocks are in non-taxable accounts, which are, by nature, unresponsive to changes in the tax rate.[203] This is an important point; large changes in the rate would drive more investors to tax-free type of investments, even if the pre-tax ROI is lower.

Figure 3-12: Capital Gains Realizations as a Share of GDP Compared to the Top Marginal Tax Rate



Source: U.S. Department of the Treasury, Office of Tax Analysis

While there is disagreement on the additional revenue that can be raised from increased capital gains tax rates, the economic consequences of doing so are almost all negative. Increasing tax rates on capital gains would mean an exodus of capital, lower employment, and a bias against saving, leading to a lower level of

[203] Also, note that changes in the rate will have a bigger effect on those paying the tax in full, but very little on those who are skilled at avoiding taxes. Steven M. Rosenthal, "Only About One-Quarter of Corporate Stock is owned by Taxable Shareholders," Tax Policy Center TaxVox, May 16, 2016, https://www.taxpolicycenter.org/taxvox/only-about-one-quarter-corporate-stock-owned-taxable-shareholders.

national income in the long term.[204] A study finds that the Biden Administration's proposal to raise the capital gains tax rate for those with income over $1 million to the top-end marginal tax rate (currently 37 percent), would lower long-run GDP by 0.3 percent.[205]

Changes in the capital gains tax rate will dramatically affect the volume and type of investments in capital, which are the backbone of long-run economic growth. This has a bigger impact on risky investments, like tech startups or healthcare research, where investors compete to be the first to develop innovative products, such as drugs.[206] It will also distort the timing of realization, with some investors suboptimally delaying the realization of gains, slowing the flow of capital to more dynamic markets. Finally, not all gains are profit. Part of the appreciation is due to inflation but

[204] This is not unlikely even in Agersnap and Zidar's paper since their margin of error was large. Agersnap and Zidar, "The Tax Elasticity of Capital Gains and Revenue-Maximizing Rates."; Note also that a drop in employment will also mean a drop in collections of personal income and payroll taxes. Martin Feldstein, "The Effect of Taxes on Efficiency and Growth," NBER Working Paper no. 12201 (May 2006), https://doi.org/10.3386/w12201; Erica York, "An Overview of Capital Gains Taxes," Tax Foundation (April 16, 2019), https://taxfoundation.org/research/all/federal/capital-gains-taxes/.

[205] John W. Diamond, "The Economic Effects of Proposed Changes to the Tax Treatment of Capital Gains," Rice University's Baker Institute for Public Policy Working Paper (October 2021), https://www.bakerinstitute.org/research/economic-effects-proposed-changes-tax-treatment-capital-gains.

[206] The one coming second would not be awarded with a patent. There is a substantial focus on the profits of the winner but, in some industries, every winner loses a significant number of (costly) races.

would be taxed nevertheless ("inflation tax").[207] In real terms, the "real" capital gains rate is much higher than the statutory.[208]
The distortive policy of taxing unrealized capital gains has been promoted by far-left economists.[209] The Biden Administration attempts to implement this in two provisions. First, it proposes treating transfers of appreciated property by gift or on death as realization events.[210] While eliminating the step-up basis (that erases taxable gains of assets at death) reduces distortions, treating the transfer at death as a realization would create a liquidity crisis, especially for households that hold high value but illiquid assets (e.g., land and equipment), such as farms. In addition, the Administration proposes expansions to the estate tax, double taxing some inheritances if both reforms materialize.[211]

The second proposed change imposes a minimum tax of 25 percent on total income, generally inclusive of unrealized capital

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[207] That is, if a stock is bought at $10 and then sold at $20, but out of the $10 gain, $5 is due to inflation, the true gains from this sale would be $5, but the investor would pay taxes on the $10 stock appreciation Garrett Watson, "Efforts to Combat Inflation's Impact on the Tax Code Should Remain a Priority in 2023," Tax Foundation (February 16, 2023), https://taxfoundation.org/blog/index-for-inflation-tax-adjustments/.

[208] Note that the higher fluctuations due to risk, the inflation tax, and the higher elasticity of certain capital (due to its ease to move across jurisdictions) are some of the main reasons why tax rates on capital are lower than those on labor.

[209] Emmanuel Saez and Gabriel Zucman, "How to Get $1 Trillion from 1000 Billionaires: Tax their Gains Now," Working Paper (April 2021), https://eml.berkeley.edu/~saez/SZ21-billionaire-tax.pdf; Emmanuel Saez, Danny Yagan, and Gabriel Zucman, "Capital Gains Withholding', Working Paper (January 2021), https://eml.berkeley.edu/~yagan/CapitalGainsWithholding.pdf.

[210] U.S. Treasury, *General Explanations FY2025*, 80.

[211] Note that both changes combined could lead to partial double taxation of certain assets. U.S. Treasury, *General Explanations FY2025*, 120.

gains, for all taxpayers with wealth greater than $100 million.[212] This is not only potentially even more harmful, but also administratively unfeasible. While, according to OMB, it would be the largest source of increase in personal income tax revenue, external scorekeepers continue to be reluctant to score such a policy.[213] Given that many assets are neither publicly traded nor readily valued, yearly valuation presents a considerable hurdle not only to taxing unrealized gains, but also to determining who is affected by the tax.[214] While the proposal allows for delays in payments for taxpayers with illiquid assets, it will likely nevertheless cause them to sell part of their businesses or property to meet the tax obligation. This problem will be exacerbated by shocks in the market from other individuals speculating with this quest for liquidity.

The Biden Administration also proposes to increase the Net Investment Income Tax rate from 3.8 to 5 percent and expand it to pass-through businesses. While this looks like a minor change, OMB projects an additional revenue of $800 billion, which, in comparison, is more than three times what it expects to collect from raising the income tax to 39.6 percent, with similar negative consequences as the ones described above.[215]

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[212] The same tax was proposed for FY 2024, and a similar one was proposed for FY 2023. U.S. Department of the Treasury, *General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals* (March 9, 2023), https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf; U.S. Department of the Treasury, *General Explanations of the Administration's Fiscal Year 2023 Revenue Proposals* (March 28, 2022), https://home.treasury.gov/system/files/131/General-Explanations-FY2023.pdf.

[213] Watson, York, McBride, Muresianu, Li, and Durante, "Details and Analysis."

[214] David Kamin, "How to Tax the Rich," *Tax Notes* 146, no. 1 (2015), https://ssrn.com/abstract=2550936.

[215] OMB, *Budget of the U.S. Government Fiscal Year 2025*, Tables S-6

Payroll Taxes

There have been multiple attempts to strengthen the trust funds of Social Security and Medicare through increases in payroll tax rates in recent years.[216] As rising payroll taxes are partially borne by employers, the cost of labor increases, depressing wages, reducing employment and, ultimately, precautionary savings toward old age.[217] In the medium and long term, wage dynamics will depend on the capacity of each type of worker to negotiate their employment situation and the employers' demand for employees. Furthermore, most of the income subject to this tax is also subject to personal income tax (double taxation). Also, lower wages from increases in the payroll tax rate mean offsetting revenues on the personal income tax since its base is eroded, increasing the on-budget deficit.[218]

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[216] The office of the Chief Actuary of the Social Security Administration scores some of these proposals and updates the effect of some of these provisions every year. Social Security Administration, "Provisions Affecting Payroll Taxes," https://www.ssa.gov/OACT/solvency/provisions/payrolltax.html.

[217] This is because employers base their cost-benefit analysis on total compensation of the employee, not just the wage. For example, if employers and employees pay a payroll tax equal to 10 percent of the wage, a wage of $100 will pay $10 and the cost of the employee would be $110. If the rate is hiked to 20 percent, the cost will remain at $110, but the employee would be paid $91.67, and each side would pay $18.33 in taxes, which is 20 percent of $91.67.

[218] Joint Committee on Taxation, *The Income and Payroll Tax Offset to Changes in Payroll Tax Revenues* (JCX-89-16) (November 18, 2016), https://www.jct.gov/getattachment/df6ad7a8-d3f8-4f39-b465-1cbe5b077d20/x-89-16-4962.pdf.

Box 3-2: Who Pays for Medicare?

The FY2025 Budget proposes "wealthy people to pay their fair share toward Medicare."[219] This misconception arises due to the Medicare tax not being as progressive as the rest of the tax code.[220] However, the payroll tax only funds the HI Trust Fund (Part A), which only accounts for about 40 percent of total Medicare spending, a proportion that is expected to continue its decline in the future.[221] Most of the expenses originate in Parts B and D, which are almost entirely funded through premiums and general revenue. Figure 3-13 below breaks down the sources of funding of Medicare.

[219] There are numerous bills proposed over the past decade with a similar intent, for instance the Medicare and Social Security Fair Share Act. The White House, "FACT SHEET: The President's Budget Cuts Taxes for Working Families and Makes Big Corporations and the Wealthy Pay Their Fair Share," Press Release, March 11, 2024, https://www.whitehouse.gov/briefing-room/statements-releases/2024/03/11/fact-sheet-the-presidents-budget-cuts-taxes-for-working-families-and-makes-big-corporations-and-the-wealthy-pay-their-fair-share/; Senator Sheldon Whitehouse, "Medicare and Social Security Fair Share Act," Fact Sheet, https://www.whitehouse.senate.gov/wp-content/uploads/imo/media/doc/Medicare%20&%20Social%20Security%20Fair%20Share%20Act%20fact%20sheet.pdf.

[220] There is a 2.9 percent on payroll earnings (split between employers and employees), plus an additional 0.9 percent on wages paid in excess of $200,000.

[221] Centers for Medicare & Medicaid Services (CMS), *2023 Medicare Trustees Report* (March 31, 2023), https://www.cms.gov/oact/tr/2023.

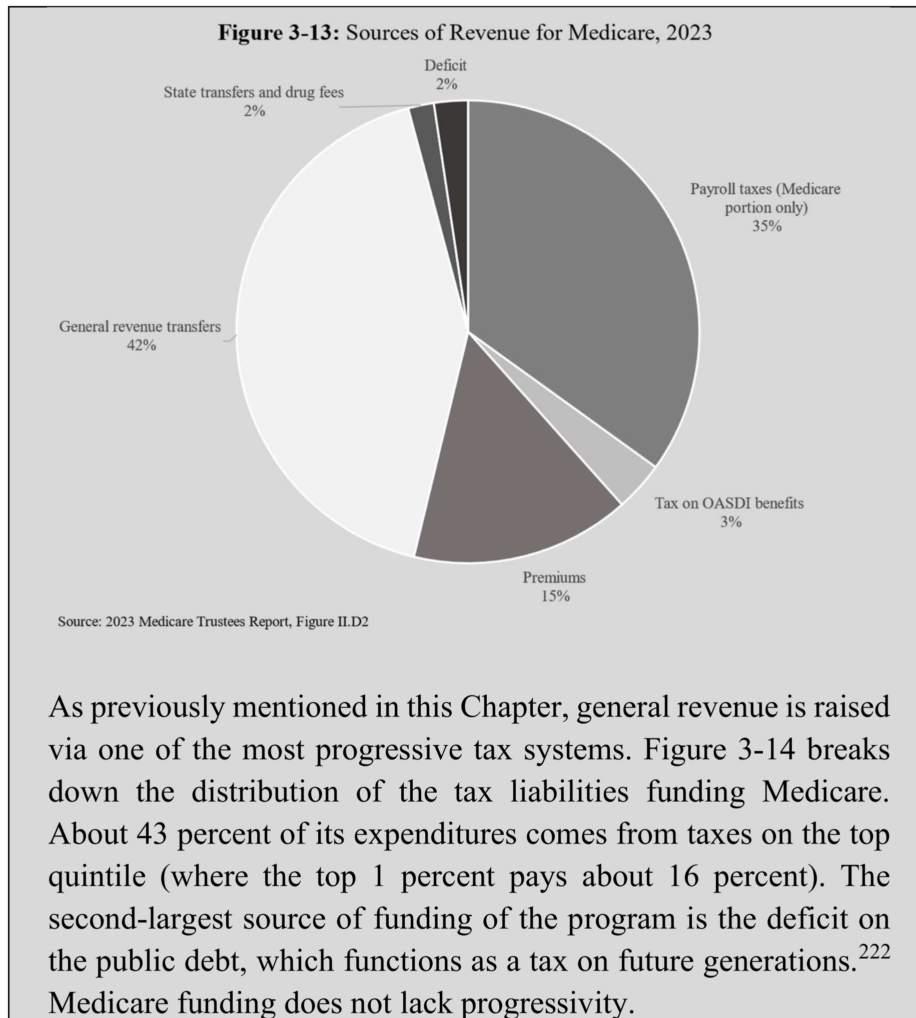
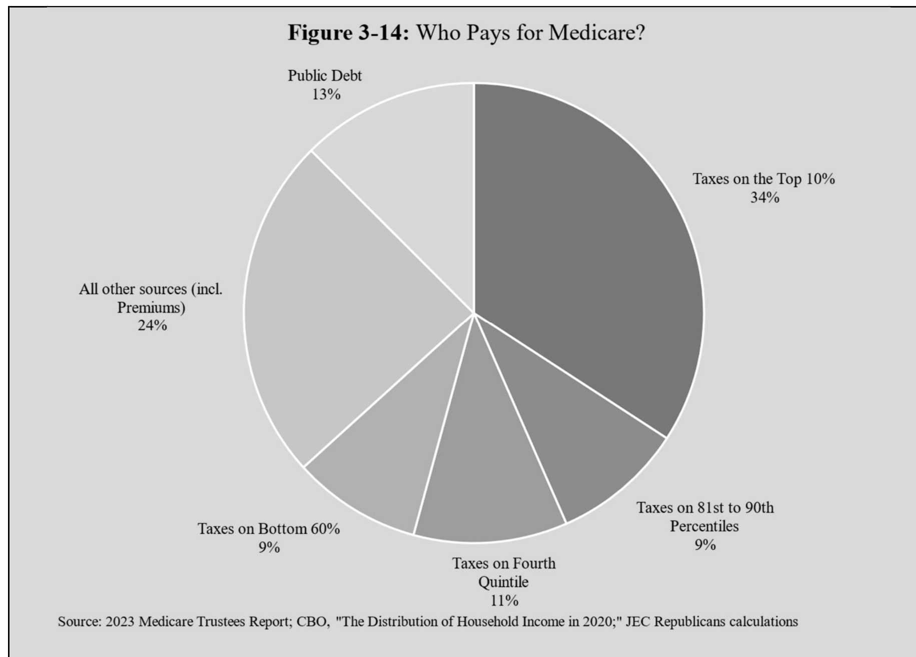


Figure 3-13: Sources of Revenue for Medicare, 2023

Source: 2023 Medicare Trustees Report, Figure II.D2

As previously mentioned in this Chapter, general revenue is raised via one of the most progressive tax systems. Figure 3-14 breaks down the distribution of the tax liabilities funding Medicare. About 43 percent of its expenditures comes from taxes on the top quintile (where the top 1 percent pays about 16 percent). The second-largest source of funding of the program is the deficit on the public debt, which functions as a tax on future generations.[222] Medicare funding does not lack progressivity.

[222] JEC Republicans calculations using data from the 2023 Medicare Trustees Report and CBO. Note that, from the CBO report, JEC Republicans used 2019 data instead of 2020 data (the latest) because the latter was an anomalous year in terms of income distribution. Also note that if there was available data on the breakdown by quintiles of the "other sources" component, the top quintile would be closer to 50 percent. CMS, *2023 Medicare Trustees Report*; CBO, *The Distribution of Household Income in 2020* (November 2023), https://www.cbo.gov/publication/59757.



Whose Taxes Will Rise?

In total, President Biden's proposals to increase taxes on businesses and high-income taxpayers would raise $2.4 trillion dollars ($4.95 trillion in additional receipts, minus outlays), which is relatively small compared to the $19.5 trillion increase in the deficit over the same period.[223] CBO estimates $20 trillion for the same period, but while the OMB's deficits decrease over time, CBO's worsens (see Figure 3-15).[224] As mentioned above, the effects of these policies on growth would reduce the projected revenue by more than a third.[225] When examined, it becomes clear

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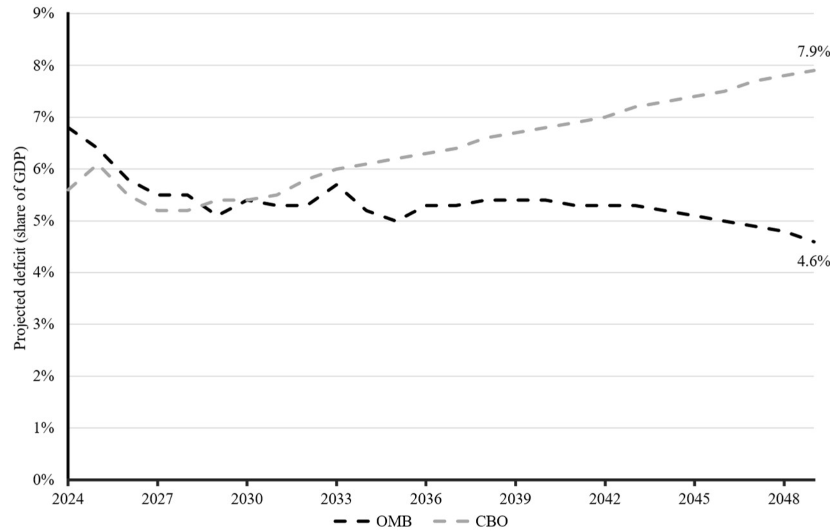
[223] U.S. Treasury, *General Explanations FY2025*, 247.

[224] This difference is relevant. According to OMB, even without changing current law, debt-to-GDP would stabilize before the year 2050. OMB, *Analytical Perspectives Budget of the U.S. Government Fiscal Year 2025*.

[225] Watson, York, McBride, Muresianu, Li, and Durante, "Details and Analysis."

that taxing successful businesses and affluent individuals will not only be a drag to the economy but would also fail to stabilize the debt. Thus, if revenues are the only target to rectify fiscal policy, individuals other than the rich would likely see their tax bills rise.

Figure 3-15: Differences between OMB and CBO Baseline Deficit Projections



Source: Congressional Budget Office (CBO); Office of Management and Budget (OMB)

Box 3-3: Taxes Are Not Independent of Each Other

One major difficulty in scoring multiple tax provisions is dealing with their interacting effects. The most common practice is to use individual estimations, then aggregate them. However, this approach is incorrect. The sum of the individual effects of ten different 10 percent taxes on income are not equivalent to a 100 percent income tax.

It is easy to see this when taxes are applied to the same base, but it is less straightforward when it involves different types. One

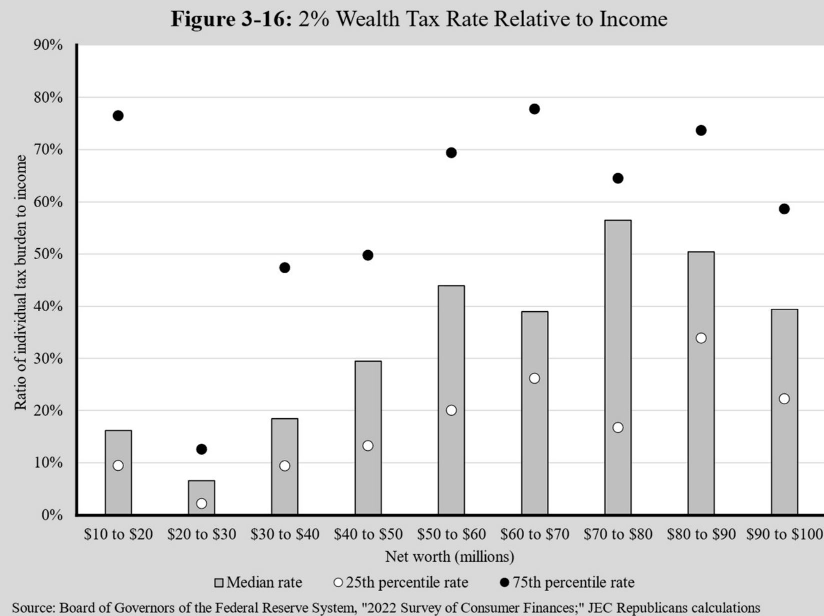
approach is to transform each tax as a percentage of income, then calculate the combined effect as if it was one larger tax on income. For example, suppose there is a tax on businesses of 20 percent, the same rate on dividends, and 5 percent on consumption. If the company has profits for $100, after paying taxes on profits and dividends (assuming all profits are disbursed), the owner is left with $64 that can be used to pay for $60.8 in goods and services (because of sales tax). Now, suppose that each tax rate is raised by 5 percentage points. Disposable income would drop by 12 percent (from $64 to $56.25) and purchasing power by 17 percent (from $60.8 to $50.6). As suggested by the Laffer curve, the marginal economic cost of raising taxes increase with the rate. Adding the effects of the three tax increases of 5 percent is more optimistic than the estimated effect of a 17 percent drop in disposable income. The disparity of both scenarios is going to be greater closer to the peak of the Laffer curve.

This method is also useful to evaluate a new tax, especially if the description could mislead on its true costs. Suppose that a 2 percent wealth tax is applied to net worths over $10 million if filling individually, and $20 million if filing as a married couple. This type of tax is commonly advertised as "only two cents for every dollar of excess wealth."[226] Of course, this is misleading, as that dollar in excess is taxed every year ad infinitum (or until the person loses enough wealth to no longer face the tax). The true size of the burden is clear when measured as a percentage of total

[226] "[…] on that next dollar, you pitch in two cents, so everyone else can have a chance." Senator Elizabeth Warren, "Warren, Jayapal, Boyle Reintroduce Ultra-Millionaire Tax on Fortunes Over $50 million," Press Release, March 19, 2024, https://www.warren.senate.gov/newsroom/press-releases/warren-jayapal-boyle-reintroduce-ultra-millionaire-tax-on-fortunes-over-50-million.

income.[227] Figure 3-16 uses the 2022 Survey of Consumer Finances of the Federal Reserve to estimate this.[228] The chart shows that a significant number of households would have to pay 40 percent or more of their income, on top of all the other taxes paid on income.

Figure 3-16: 2% Wealth Tax Rate Relative to Income



Source: Board of Governors of the Federal Reserve System, "2022 Survey of Consumer Finances;" JEC Republicans calculations

Adding a wealth tax to existing taxes could bring the tax burden of some households to levels close to 100 percent of their income.

[227] Of course, total income is not the only way to accumulate wealth. Most households at the top do so through the growth in the value of their assets. However, not all these gains are realized while the tax is applied regardless of the liquidity of the taxpayer.

[228] JEC Republicans acknowledge that the data is based on a survey that might not reflect true net worths and income, but it is one of the best sources available. Aditya Aladangady et al., "Changes in U.S. Family Finances from 2019 to 2022: Evidence from the Survey of Consumer Finances" (Board of Governors of the Federal Reserve System, 2023), https://doi.org/10.17016/8799.

This example emphasizes the importance of calculating the aggregate tax burden before estimating the effects on the economy.

This is because there is a limit on how much tax the government can "extract" from the highest earners. Brian Riedl, researcher at the Manhattan Institute, estimates that, at most, the Federal government can raise revenues by another 2.1 percent of GDP through increasing the top marginal rate.[229] Moreover, when including dynamic effects on the economy, tax revenue can only be raised by between 1.1 and 2 percent of GDP, far short of the 2.5 percent needed in the long term to keep the debt ratio at 100 percent.[230] As explained in Box 3-3, simultaneous tax hikes have spillovers effects; the aggregate effect of more than one tax increase is greater than the sum of the individual parts. This means that the maximum revenue from taxing the highest earners, after accounting for dynamic effects, would most likely be closer to the lower bound of Riedl's estimation.

Pursuing fiscal solvency through more progressive taxation is a mistaken and partisan approach.[231] The U.S. tax code is already

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[229] Note that this calculation includes 0.4 percent from aggressive tax enforcement, which is significantly more optimistic than OMB's or any other work cited in this Chapter. Riedl, "The Limits of Taxing the Rich."

[230] Note that the deficit reduction required would be larger if the debt is stabilized at a higher ratio, since the net interests paid will be larger as well. JEC Republicans calculated the 2.5 percent value using CBO's long-term budget projections. CBO, *The Long-Term Budget Outlook: 2024 to 2054*.

[231] The bipartisan Simpson Bowles commission in 2010 prescribed lower taxes and expanding the tax base. The National Commission on Fiscal Responsibility and Reform, *The Moment of Truth: Report of the National Commission on Fiscal Responsibility and Reform* (The White House: December 2010), https://www.ssa.gov/history/reports/ObamaFiscal/TheMomentofTruth12_1_2010.pdf.

among the most progressive in the developed world, and attempts to increase the progressivity may not produce the expected outcomes.[232] The reason European countries collect more tax revenue is because income levels across the distribution are taxed at similar rates, while the U.S.' budget is funded overwhelmingly by the top 10 percent of taxpayers.[233] Blanchet, Chancel and Gethin calculated the tax burden for each percentile of the income distribution. They found that the top one percent of income earners pay a similar tax rate on both sides of the Atlantic, but the middle and lower quintiles pay a larger portion of their income in Europe (almost a flat rate) compared to the United States.[234] Emulating their tax code would not raise taxes on the rich but instead would increase taxes for middle- and lower-income taxpayers. As a result, the number of households on the lower end of the income distribution who would struggle to afford basic goods would likely increase, which could result in increased pressure to raise social spending.[235] Fortunately, raising taxes is not the only fiscal policy lever that can be adjusted to achieve fiscal balance.

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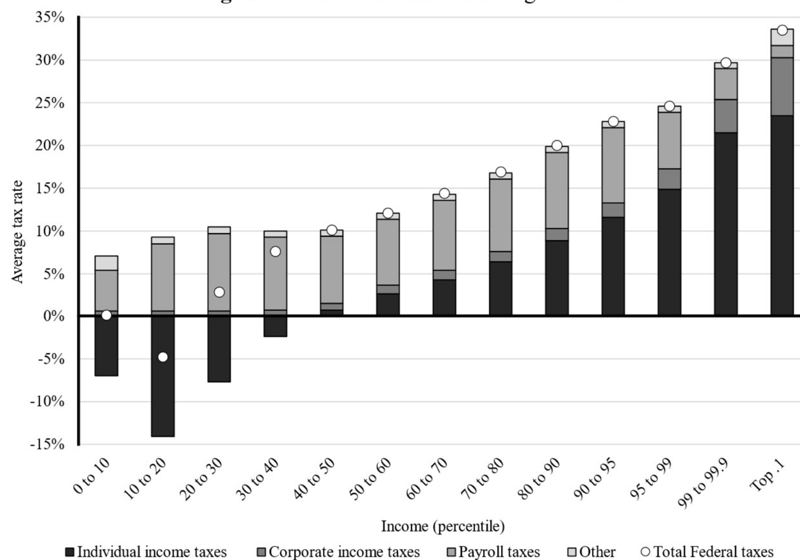
[232] Howard Gleckman "How Should We Tax The Rich," Tax Policy Center TaxVox, September 10, 2019, https://www.taxpolicycenter.org/taxvox/how-should-we-tax-rich.

[233] Blanchet, Chancel, and Gethin's appendix replicates the data for each country. Note that the United States is still at the top in progressivity even after including social spending. Blanchet, Chancel, and Gethin, "Why Is Europe More Equal than the United States?"; CBO, *The Distribution of Household Income in 2020*.

[234] This is not only because of consumption-based taxes like VAT. The paper shows that direct taxes on incomes are also higher for the bottom quintiles. Blanchet, Chancel, and Gethin, "Why Is Europe More Equal than the United States?"

[235] Blanchet, Chancel, and Gethin find that when comparing the progressivity of the systems on both sides of the Atlantic, the United States comes out on top because the lower levels of taxation for families at the bottom more than compensate for the smaller safety net. They conclude that the greater inequality in the U.S. is due pre-tax income distribution. They find that the post-tax-and-transfers relative inequality is even lower than the pre-tax. It is outside of the scope of

Figure 3-17: Distribution of Average Tax Rate



Source: U.S. Department of the Treasury, Office of Tax Analysis (2024 estimates)

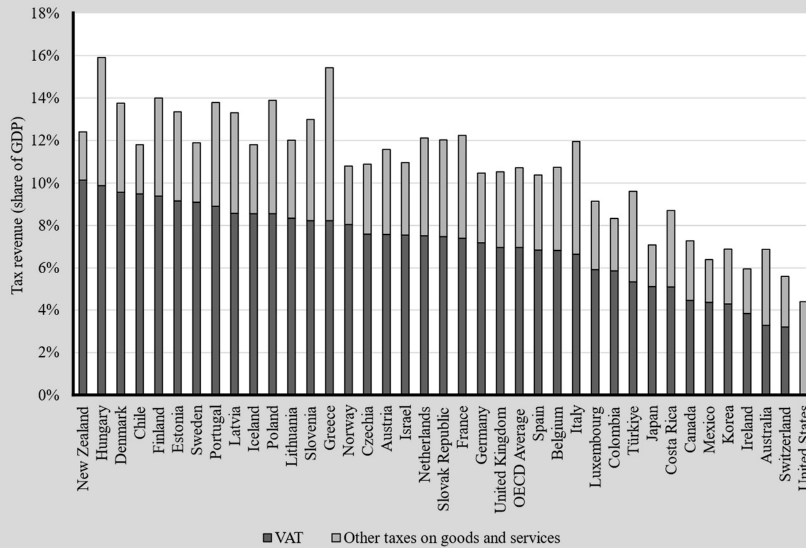
Box 3-4: Value-Added Tax

Another peculiarity of the U.S. tax code is the low reliance on taxes on consumption. The most commonly used consumption tax globally is the Value-Added Tax (VAT), which is applied to all increases in the value of a product through the supply chain. Proponents list many reasons why such a tax would be advantageous, for instance the simplicity to implement, ability to raise large amounts of tax revenue, and ability to produce a higher

this Chapter, but this does not necessarily mean that there is a bigger flaw in our private sector. For example, a welfare system plagued with benefits cliffs and valleys could discourage growth of pre-tax earnings.

level of saving and productivity in the economy.[236] For example, Figure 3-18 shows that collection of a VAT in several OECD countries is higher as a percentage of GDP than the personal income tax in the US (8.1 percent in 2023).[237]

Figure 3-18: Importance of VAT on Tax Revenue in the OECD



Source: OECD Revenue Statistics 2023

Consumption is a substantial potential source for additional tax revenue. CBO estimates that a 5 percent VAT can raise more than

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[236] William G. Gale, "Raising revenue with a progressive value-added tax," in *Tackling the Tax Code: Efficient and Equitable Ways to Raise Revenue*, ed. Jay Shambaugh and Ryan Nunn, (Brookings, January 2020), https://www.brookings.edu/articles/tackling-the-tax-code-efficient-and-equitable-ways-to-raise-revenue/; Donald J. Marples, "Consumption Taxes: An Overview," Congressional Research Service report (January 24, 2023), https://crsreports.congress.gov/product/pdf/R/R44342.

[237] OECD, "Effective Tax Rates;" CBO, *The Budget and Economic Outlook: 2024 to 2034*.

$3 trillion over ten years.[238] William Gale calculates that the gross revenue from a 20 percent VAT (as seen in many European countries) could decrease the budget deficit by more than $10 trillion dollars over the next ten years.[239]

It is critical to note that the VAT has major shortcomings. A primary concern is its regressivity, since consumption represents a much larger portion of the lower quintiles' incomes than that of the top ones. Taxes on consumption are the main reason why the tax burden distributions in European countries are flat.[240] According to the Congressional Research Service, transitioning to a VAT would increase aggregate savings, but also lower savings rates for the bottom two quintiles because their consumption represents a larger part of their earnings).[241] Given that in 2019 the bottom and second quintiles consumed 239 and 123 percent of their earnings respectively, a 20 percent VAT would represent a higher percentage of their earnings while the top quintiles (who have positive levels of savings) would pay a much lower tax rate (See Figure 3-19).[242] According to the same report, there would also be an age gap, with those 75 and over and those under 25 disadvantaged. The negative impact in purchasing power would come from price increases or reduced wages, and it would generate

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[238] CBO, *Options for Reducing the Deficit, 2023 to 2032—Volume I: Larger Reductions* (December 7, 2022), 84-87, https://www.cbo.gov/publication/58164.

[239] Note that these are pre-inflation 2019 estimations. Gale, "Raising revenue with a progressive value-added tax."

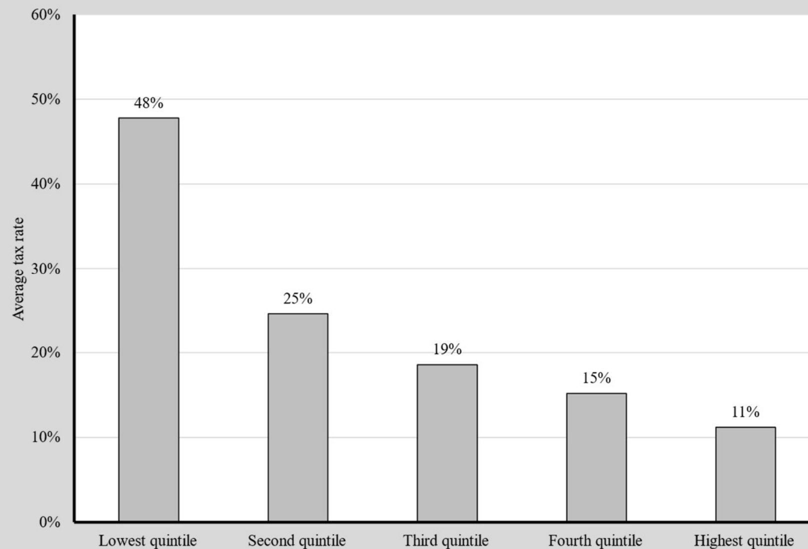
[240] Blanchet, Chancel, and Gethin's appendix replicates the data for each country. Note that the United States is still at the top in progressivity even after including social spending. Blanchet, Chancel, and Gethin, "Why Is Europe More Equal than the United States?"

[241] CRS, *Consumption Taxes: An Overview*.

[242] Values over 100 percent indicate population requiring supplemental income to their earnings to afford their consumption levels.

additional pressure on social spending, decreasing its potential for deficit reduction.[243]

Figure 3-19: Average Tax Rate by Income with a 20% VAT



Source: Congressional Research Service, "Consumption Taxes: An Overview"

Additionally, implementation presents difficulties, since it would require coordinating with state and local governments (that already apply some form of tax on consumption), changing the current methods of bookkeeping, and would likely face pushback from consumers not willing to deal with the higher costs of goods and services.

A final concern relates to its main virtue. If a very small change in the rate can raise a significant amount of revenue, incremental increases would decrease fiscal discipline. It might lead to the

[243] Some economists propose solutions to counter this. For example, William Gale proposes implementing a universal basic income, but this would reduce net revenue significantly. Gale, "Raising revenue with a progressive value-added tax."

creation of new programs that are not needed.[244] This means that a VAT would increase the size of the government at the expense of workers and businesses, while increasing dependency on government.

A More Efficient Fiscal Consolidation

Raising taxes is a harmful tactic to balance the long-run budget deficit and harms GDP growth.[245] Growth not only affects the denominator in the debt-to-GDP ratio equation (making stabilization of the debt-to-GDP ratio more challenging), but also increases taxable income and alleviates poverty. Alternatively, spending reduction has proven to be a better approach to achieve fiscal consolidation. A series of studies by Alesina, Favero and Giavazzi found that fiscal adjustments based on spending reductions are much less costly to the economy than tax-based ones.[246] Although in general these adjustments have been mixtures of revenues and expenditures, the latter were the main component in successful cases, including Canada and Finland (85 percent), and Netherlands, Sweden, and the United Kingdom (75 percent).[247] Of course, fiscal adjustment may have a short-term

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[244] Daniel Mitchel, *How a Value Added Tax Would Harm the U.S. Economy*, The Heritage Foundation report (May 11, 1993), https://www.heritage.org/taxes/report/how-value-added-tax-would-harm-the-us-economy.

[245] JEC Republicans, *Response*.

[246] Two of their most representative works on this issue are: Alberto Alesina, Carlo Favero, and Francesco Giavazzi, "The Output Effect of Fiscal Consolidations," NBER Working Paper no. 18336 (August 2012), https://doi.org/10.3386/w18336; Alberto Alesina, Omar Barbiero, Carlo Favero, Francesco Giavazzi, and Matteo Paradisi, "The Effects Of Fiscal Consolidations: Theory And Evidence," NBER Working Paper no. 23385 (May 2017), https://doi.org/10.3386/w23385.

[247] Joel Chiedu Okwuokei, "Fiscal Consolidation: Country Experiences and Lessons from the Empirical Literature," in *Caribbean Renewal. Tackling Fiscal and Debt Challenges*, ed. Charles Amo Yartey and

cost due to the observed reduction in government spending in the economy. But de Rugy and Salmon find that while both revenue- and spending-based fiscal consolidations can have an initial contractionary effect on the economy, the latter is milder and lasts for a much shorter period.[248] Tax hikes are more severe, and the negative economic effects tend to last longer.

Addressing spending excesses does not explicitly mean that the working poor and elderly will see their benefits impacted. Instead of broad-based changes to transfer programs, targeted reforms could mean reducing inefficiencies and maintaining programs for those that need them most. Pro-market competition reforms to the heavily regulated healthcare sector could be translated into lower spending on Medicare, Medicaid, and greater economic independence for retirees. Additionally, the Federal government could use the information at its disposal to evaluate programs, doing a longitudinal cost-benefit analysis to make spending more efficient. Finally, base broadening and simplifying the tax code would level the field, increasing revenue and reducing the tax-gap without raising tax rates.[249] Pro-growth measures would also be helpful, like restoring the full expensing as well as expensing for

Therese Turner-Jones (International Monetary Fund, 2014): 126, https://doi.org/10.5089/9781484369142.071.

[248] Veronique de Rugy and Jack Salmon, "Flattening the Debt Curve: Empirical Lessons for Fiscal Consolidation," Mercatus Center research paper (July 22, 2020), https://www.mercatus.org/research/research-papers/flattening-debt-curve-empirical-lessons-fiscal-consolidation.

[249] Moreover, Feldstein mentions that tax credits are mostly subsidies to high-income individuals. Martin S. Feldstein, "Raising Revenue by Limiting Tax Expenditures," NBER Working Paper no. 20672 (November 2014), https://doi.org/10.3386/w20672.

research and development that were successfully implemented with TCJA but have since expired.[250]

Unfortunately, given the nature of Federal spending and the trajectory of the deficit, there is no silver bullet sufficient to solve the country's fiscal woes. It is also unlikely that any fiscal stimulus (spending or tax cuts) could pay for itself through growth, especially when projections tend to be more optimistic than reality.[251] The reforms needed require both sides of the aisle to work for this common goal of tempering the bloating of the public debt.

Policymakers must look to novel approaches and disruptive technologies to provide breakthrough solutions. The following Chapters discuss tackling obesity and greater adoption of artificial intelligence as two possible areas for exploration.

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[250] Jason Furman argues that full expensing can act as a full tax break on investments with normal profits. Adam N. Michel, "Expensing and the Taxation of Capital Investment," Cato Briefing Paper no. 159 (June 7, 2023), https://www.cato.org/sites/cato.org/files/2023-06/BP159.pdf; Martin Feldstein and Lawrence Summers, "Inflation and the Taxation of Capital Income in the Corporate Sector," *National Tax Journal* 32, no. 4 (1979), https://doi.org/10.1086/NTJ41862265; Furman, "How to increase growth while raising revenue."

[251] Note that changes in global affairs would likely contribute to this as well. Niall Ferguson, "Biden Can't Pay His Way Out of Fighting Cold War II," *Bloomberg*, May 19, 2024, https://www.bloomberg.com/opinion/articles/2024-05-19/us-can-t-pay-other-countries-to-wage-cold-war-ii-against-russia-china.

CHAPTER 4: REACHING FISCAL SOLUTIONS THROUGH HEALTHCARE INNOVATION

Last year, the Joint Economic Committee Republicans outlined the economic and social costs of obesity. JEC Republicans estimated that obesity causes an average of $5,155 in average excess medical costs per person who suffers from the condition, which correspond to $520 billion in total excess healthcare costs in 2023 alone.[252] This year, we update these figures given changing obesity trends and calculate that obesity will result in $8.2 to $9.1 trillion in excess medical expenditures over the next ten years for those suffering from the disease.[253] We also estimate that reductions in labor supply and labor productivity due to obesity result in the size of the economy being $13.5 to $14.7 trillion smaller over the next ten years than it otherwise would have been and that these reductions would result in $2.4 to $2.6 trillion in foregone tax revenue.

Even more significant than these economic costs are the dramatic impact that obesity has on individuals' health and well-being. Obesity is a causal risk factor for many diseases including diabetes, cardiovascular disease, and cancer and has a substantial impact on life expectancy.[254] Last year's *Response* estimated that obesity is responsible for 4.7 years of life lost for the average person suffering from the disease and reduces the overall United States life expectancy by 2.1 years.[255] Finding effective obesity treatments will dramatically improve both the personal and economic health of the United States.

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[252] Joint Economic Committee (JEC) Republicans, *Republican Response to the Economic Report of the President* (U.S. Congress Joint Economic Committee, 2023): 41-42, https://sen.gov/LVQYY.
[253] Note: Figure is in real dollar terms.
[254] JEC Republicans, *Response*, 40.
[255] JEC Republicans, *Response*, 47.

As outlined in last year's *Response*, putting the United States on a sustainable fiscal path is necessary to fulfill the responsibilities outlined in the Employment Act of 1946 which declares that:

> "It is the continuing policy and responsibility of the Federal Government […] to promote maximum employment and production, increased real income, balanced growth, a balanced Federal budget, adequate productivity growth, proper attention to national priorities, achievement of an improved trade balance […] and reasonable price stability."[256]

As discussed in Chapter 2 of this year's *Response*, mandatory spending is a primary driver of the Federal deficit. Stabilizing the debt-to-GDP ratio requires running a primary deficit that is smaller than the difference between the real growth rate of the economy and the real interest rate on the debt, which is extremely difficult, if not impossible, to do without addressing mandatory programs.[257] Targeted reforms to these programs remains one of the most pragmatic ways to stabilize the debt-to-GDP ratio. As outlined in Chapter 3 of last year's *Response*, reducing the burden of obesity through improved nutrition policy, treatment, and medical innovation may result in significantly lower aggregate healthcare spending. This Chapter highlights the changes that have occurred in the obesity space in the past year, including updated obesity projections and cost estimates, and presents an overview of the potential of obesity-related healthcare innovations that have risen to prominence.

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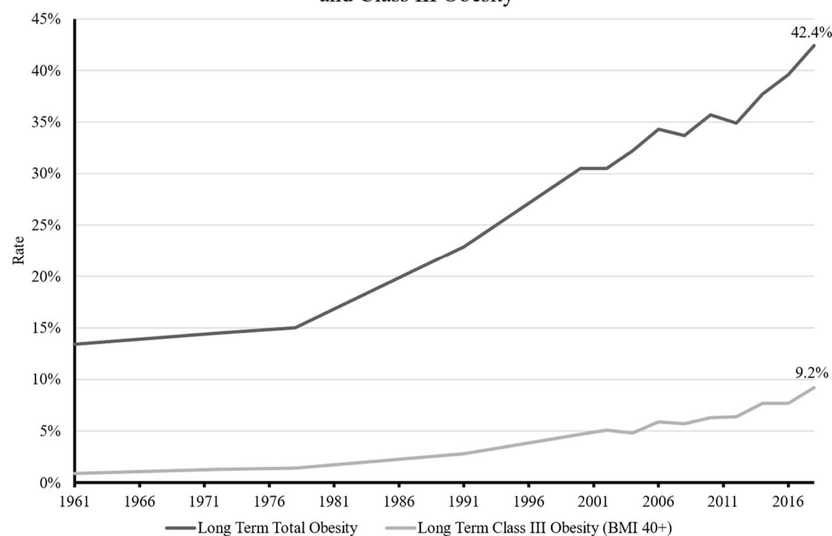
[256] 15 U.S.C. 21 § 1021(a) (1946).
[257] JEC Republicans, *Response*, 24-34.

Obesity Rates Continue to Rise at an Alarming Pace

Over the past 10 years, adult obesity and severe obesity prevalence have increased at a rate significantly faster than prior decades.[258]

Figure 4-1: Historic Rates of Adult Obesity (Ages 20+) and Class III Obesity



Source: CDC/NCHS, NHES and NHANES

Adult obesity rates have risen gradually since the 1980s and accelerated starting in the early 2010s. From 2009 through 2018, the obesity prevalence rate in adults grew by almost 19 percent

[258] Cynthia L. Ogden et al., "Trends in Obesity Prevalence by Race and Hispanic Origin—1999-2000 to 2017-2018," *Journal of the American Medical Association* 324, no. 12 (2020): 1208-10, https://doi.org/10.1001/jama.2020.14590.; Cynthia L. Ogden and Margaret D. Carroll, "Prevalence of Overweight, Obesity, and Extreme Obesity Among Adults: United States, Trends 1960–1962 Through 2007–2008," Centers for Disease Control and Prevention, June 2010, https://www.cdc.gov/nchs/data/hestat/obesity_adult_07_08/obesity_adult_07_08.pdf.

while the prevalence of severe obesity grew by 46 percent.[259] In the prior decade, 1999 to 2008, obesity prevalence grew approximately 10 percent while severe obesity prevalence grew 21 percent. Given that the 10-year growth rate of obesity prevalence nearly doubled from the prior 10-year period, JEC Republicans have updated obesity prevalence projections based on near and long-term obesity rates.

We project that the share of U.S. adults who are obese will rise from between 44.9 percent and 47.5 percent in 2024 to between 51.4 percent and 56.6 percent by 2034.[260] These projections are based on a linear regression over the prior 10 years and 31 years of obesity rate data. Since the rate at which obesity has risen has been greater in the past 10 years than the past 31 years, obesity projections based on the past 10 years of obesity data serve as the upper bound of our estimates while projections based on the past 31 years serve as the lower bound. Figure 4-2 displays the projected obesity and severe obesity rates based on these parameters.

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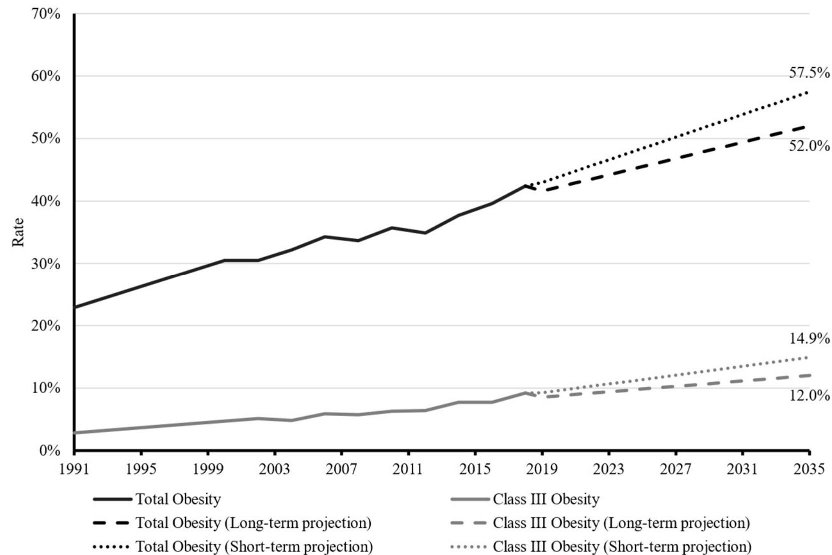
[259] JEC Republicans calculations.

[260] Our long-term growth scenario projects that 44.9 percent of adults will qualify as obese in 2024, while our near-term growth scenario projects the share will be 47.5 percent. Long-term growth scenario incorporates the past 31 years of data from 1988-2018 while the near-term growth scenario incorporates the past 10 years of data from 2009-2018. We use age-adjusted obesity data provided by the Centers for Disease Control and Ogden et al. in our projection. Our use of age-adjusted data means there will be slight deviations from our previous research in Chapter 3 of the 2023 *Response*. JEC Republicans, *Response*, 200; Cynthia L. Ogden et al., "Trends in Obesity Prevalence by Race and Hispanic Origin—1999-2000 to 2017-2018," *Journal of the American Medical Association* 324, no. 12 (2020): 1208-10, https://doi.org/10.1001/jama.2020.14590.

Figure 4-2: Projected Adult (20+) Obesity Rates



Source: CDC/NCHS, NHES and NHANES, Ogden et al., JEC Republicans Staff Calculations

These results are significant for several reasons. First, even using a low-end projection of obesity rates, it is expected that by 2032 more than half the U.S. adult population will be obese. In our near-term projection, based on the past 10 years of obesity growth rates, the adult obesity rate can be expected to eclipse half the adult population as soon as 2027. Equally concerning are the projected severe obesity rates, which as outlined in Chapter 3 of last year's *Response*, are associated with significantly higher medical costs when compared to Class 1 and Class 2 obesity.[261] Severe obesity rates can be expected to be between 11.8 percent and 14.6 percent by 2034.

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[261] For additional information on the definitions of the various Body Mass Index classifications, please see: JEC Republicans, *Response*, 42-43.

Rising Obesity is a Significant Drag on the Economy

In last year's *Response*, JEC Republicans estimated the costs of obesity and calculated that the Federal government will spend $4.1 trillion on obesity related diseases over the next 10 years and that obesity related labor productivity and supply reductions will cost $2.6 and $5.6 trillion over the same span, respectively. This year's *Response* intends to provide new estimates to these figures using an updated methodology to estimate the aggregate economic cost of obesity.

There are three primary contributors to the overall economic cost of obesity: medical expenditures, labor productivity reductions, and labor supply reductions due to poor health. Given updated obesity prevalence figures, it is prudent to update the calculations of excess medical costs due to obesity. This year's estimates include private spending on obesity treatments to understand obesity's overall impact on the economy. We estimate that obesity will result in $8.2 to $9.1 trillion in excess medical expenditures over the next 10 years.

This calculation is derived from research by Cawley et al. that estimates the excess annual medical expenditures by various obesity classes per individual.[262] Because this number is indexed to 2017 dollars, we first adjust it for inflation using the CPI-U and CBO's projections of CPI-U for the next 10 years. In addition, Cawley et al. estimates that excess obesity costs are rising at a rate of 1.93 percent per annum, in inflation-adjusted dollars. For this reason, we apply an additional adjustment to the annual excess medical costs due to obesity that considers both general CPI-U

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[262] John Cawley et al., "Direct Medical Costs of Obesity in the United States and the Most Populous States," *Journal of Managed Care and Specialty Pharmacy* 27, no. 3 (2021): 354-66, https://doi.org/10.18553/jmcp.2021.20410.

inflation and the 1.93 percent annual increase outlined in Cawley et al.

Next, we take Census projections of the U.S. population ages 20 and over for the next ten years and multiply it by the projected percentage of the U.S. population that will be either Class 1 and Class 2 obese or Class 3.[263] It is important to note that due to the dramatic difference in expenditures for Class 3 versus Class 1 and Class 2 obesity, each must be calculated separately. Using the calculations on the following page, we estimate that the excess cost of Class 1 and Class 2 obesity in 2024 is $4,043 while for Class 3 it is $9,895.

Additionally, because Class 1 and Class 2 obesity rates are not reported separately, we assume there is an equal proportion of Class 1 and Class 2 individuals. After calculating the annual estimates of the population of Class 1 and 2 as well as Class 3 individuals, we multiply the results by the adjusted annual excess costs of obesity to calculate the total excess cost of obesity for a given year. As outlined in the previous section, there is a range of projected obesity rates due to the differences in the growth rate in obesity prevalence over the past 31 years versus the past 10 years. The 31-year growth rate represents the low-end estimate. These calculations can be expressed as the following equations:

[263] U.S. Census Bureau, "Projected Population by Five-year Age Group and Sex (NP2023-T3)," 2023, https://www2.census.gov/programs-surveys/popproj/tables/2023/2023-summary-tables/np2023-t2.xlsx.

(Inflation-Adjusted Excess Medical Costs per Person) $_t$
=
(Excess Medical Costs) $_{t-1}$
×
(1 + Annual Increase in CPI-U + 0.0193)

$$\boldsymbol{c_{it} = c_{i(t-1)} \times ((1 + \pi_t) + 0.0193)}$$

c_{it} = Total medical costs for person i in year t
π_t = Inflation in year t, or increase in CPI-U in year t

(Total Excess Medical Costs) $_t$
=
Census Projection of Population Ages 20+
×
Estimated Share of Class 1 or 2 Obesity
×
(Average Excess Medical Costs per Person) $_t$

$$\boldsymbol{C_t = p_t \times s_t \times c_t}$$

C_t = Total excess medical costs in year t
p_t = Population in year t
s_t = Share of population with Class 1 or 2 obesity in year t
c_t = Average individual excess medical costs in year t

$$\boldsymbol{P = \sum_{t=2024}^{2033} C_t}$$

P = Total 10-year cost projection
C_t = Total excess medical costs for Class 1 and 2 obesity in year t

This process is then repeated for Class 3 obesity and the two results are summed to estimate the total excess medical costs of obesity.

Labor Supply and Productivity Costs

Obesity also leads to economic costs through reductions in the aggregate labor supply due to the curtailment of life expectancies. As outlined in last year's *Response*, obesity has a significant impact on life expectancy, reducing the average lifespan of someone with the disease by 4.7 years and the overall lifespan of the entire U.S. adult population by 2.1 years.[264] When estimating lost output due to reduced lifespan, we incorporate research that suggests that a 1 percent increase in the labor supply results in a 0.8 percent increase in long-run economic activity.[265] We model the effect of early mortality due to obesity on labor supply by assuming obese persons devote similar proportions of their working life to work and retirement as does the average person.[266]

We then divide the weighted estimate of years of life lost due to obesity, as calculated in last year's *Response,* by the average worker's "work span" to provide an annual estimate of the labor supply lost each year due to early mortality attributable to obesity. Work span in this context is the 45 years in between an adult turning 20 (the first year in which we have adult obesity data) and the average retirement age of 65.

Next, we use CBO's projections of nominal GDP in a given year and multiply it by 0.8 percent, to calculate the labor share of

[264] JEC Republicans, *Response*, 47-48.
[265] JEC Republicans, *Response*, 103-4.
[266] JEC Republicans, *Response*, 55.

potential GDP.[267] This figure is then multiplied by the weighted percent reduction in work span to estimate the GDP lost due to reductions in the labor supply. We weigh this percent reduction each year to account for the fact that the reduction in work span will be higher in the future as obesity and severe obesity rates rise. Ultimately, we estimate that the U.S. will lose between $10.9 to $11.9 trillion in GDP due to labor supply reductions from obesity over the next 10 years. The range is derived from the various obesity growth rates outlined previously in this section. Using CBO's estimates for income as a percent of GDP, we estimate that this would result in $1.93 to $2.12 trillion in lost tax revenue.[268]

Labor Productivity Costs

A similar methodology can be applied to calculate the labor productivity costs of obesity, namely through "presenteeism", in which employees are not able to work at full capacity due to illness or other related reasons. Last year's *Response* discussed research that estimates that obese workers are absent 2 to 2.5 more days each year than normal BMI workers and that obesity causes a 2 percent reduction in overall productivity for workers.[269] Using this assumption, we can estimate how much higher U.S. output would be given our updated projections of obesity. After calculating the labor share of potential GDP, we multiply it by the projected

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[267] We multiply by 0.8 percent because a 1 percent increase in the labor supply results in a 0.8 percent increase in long-run economic activity.

[268] Using CBO's estimates of tax receipts as percentage of GDP for 2024-2033. Congressional Budget Office (CBO), *The Budget and Economic Outlook: 2024 to 2034* (February 2024): Table 2, https://www.cbo.gov/system/files/2024-02/51134-2024-02-Historical-Budget-Data.xlsx.

[269] Ian Kudel, Joanna C. Huang, and Rahul Ganguly, "Impact of Obesity on Work Productivity in Different US Occupations," *Journal of Occupational and Environmental Medicine* 60, no. 1 (2018): 6-11, https://doi.org/10.1097/JOM.0000000000001144; JEC Republicans, *Response*, 55.

obesity rates each year and calculate what a 2 percent increase in this number would be.[270] Ultimately, we find that this increase in output would be $2.6 to $2.8 trillion dollars over the next 10 years. This translates to $461 to $498 billion in lost tax revenue.

Healthcare Innovation

The prevalence and economic costs of obesity continue to grow at an astonishing rate, and finding policies that can reduce the burden of the disease could dramatically improve the U.S.' personal and fiscal health. Fortunately, significant progress has been made in the fight against obesity even within the past year. There has been a rise in AI-powered wearable technologies such as smart watches that have helped monitor and screen for various obesity-related comorbidities, but one innovation that has received significant attention is the class of diabetes treatment and weight loss drugs known as GLP-1s.[271]

GLP-1s (glucagon-like peptide 1) are a class of medication used to treat diabetes and obesity. These drugs work by regulating insulin and imitating the hormone glucagon-like peptide 1 which suppresses appetite and releases insulin.[272] While these drugs have been approved to treat diabetes since 2005, they have received significant attention in recent years due to two GLP-1s being

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[270] Labor share of potential GDP is calculated the same as it was for the labor supply reduction calculation.

[271] Stefano Canali, Viola Schiaffonati, and Andrea Aliverti, "Challenges and Recommendations for Wearable Devices in Digital Health: Data Quality, Interoperability, Health Equity, Fairness," *PLOS Digital Health* 1, no. 10 (2022), https://doi.org/10.1371/journal.pdig.0000104.

[272] Dani Blum, "What is Ozempic and Why is it Getting So Much Attention?" *The New York Times*, November 22, 2022, https://www.nytimes.com/2022/11/22/well/ozempic-diabetes-weight-loss.html.

approved specifically for weight loss.[273] The medical literature suggests that these drugs have been effective in reducing cardiovascular events and all-cause mortality in patients with Type 2 diabetes and obesity.[274] Additionally, these drugs lead to lower caloric intake, suppressed appetite, and fewer food cravings for patients using them.[275] Research suggests that these drugs, when combined with lifestyle intervention, result in a mean body weight difference for those with diabetes of 6.1 to 17.4 percent when compared to a placebo.[276] These results suggest that there could be substantial reductions in obesity given sufficient uptake of these medications.

Cost Considerations

While GLP-1s have the potential to significantly improve outcomes for those with diabetes and obesity, currently the drugs are prohibitively expensive. Without insurance coverage, these drugs can cost nearly $1,000 a month, and, even with insurance

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[273] Kelsey H. Sheahan, Elizabeth A. Wahlberg, and Matthew P. Gilbert, "An Overview of GLP-1 Agonists and Recent Cardiovascular Outcomes Trials," *Postgraduate Medical Journal* 96, no. 1133 (2020): 156-61, https://doi.org/10.1136/postgradmedj-2019-137186; Rachael Ajmera and Adrienne Youdim, "GLP-1 Agonist For Weight Loss: What You Need to Know," *Forbes Health*, September 25, 2023, https://www.forbes.com/health/weight-loss/glp-1-agonists/.

[274] Naveed Sattar et al., "Cardiovascular, mortality, and kidney outcomes with GLP-1 receptor agonists in patients with type 2 diabetes: a systematic review and meta-analysis of randomised trials," *The Lancet Diabetes & Endocrinology* 9, no. 10 (2021): 653-62, https://doi.org/10.1016/s2213-8587(21)00203-5.

[275] John Blundell et al., "Effects of once-weekly semaglutide on appetite, energy intake, control of eating, food preference and body weight in subjects with obesity," *Diabetes, Obesity & Metabolism* 19, no. 9 (2017): 1242-51, https://doi.org/10.1111/dom.12932.

[276] Mojca Jensterle, Manfredi Rizzo, Martin Haluzík, and Andrej Janež, "Efficacy of GLP-1 RA Approved for Weight Management in Patients with or Without Diabetes: A Narrative Review," *Advances in Therapy* 39, no. 6 (2022): 2452-67, https://doi.org/10.1007/s12325-022-02153-x.

coverage, they can cost up to $300 a month.[277] Fortunately, costs can be reduced significantly as these drugs come off patent. Research suggests that when drugs become generic, their price drops significantly.[278] Two GLP-1s are expected to come off patent later this year. Furthermore, 74 anti-obesity medications are in clinical trials, although the impact of this on future prices is not immediately clear.[279]

Price is of major importance when the market and economic potential of these drugs is so large. Briggs and Kodnani estimate that the potential market for GLP-1s could be 133 million Americans, with 74 million of the individuals of the potential market using the drug specifically to treat obesity rather than exclusively Type 2 diabetes.[280] They estimate that within five years 10 to 70 million Americans could be taking GLP-1 medications. The wide range for the estimate depends on a variety of factors, including clinical trial approval of drugs being tested, price of generics, and general take-up and usage rates. Depending on the total usage and effectiveness of GLP-1s, they estimate that

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[277] Benedic N. Ippolito and Joseph F. Levy, "Estimating the Cost of New Treatments for Diabetes and Obesity," American Enterprise Institute Economic Perspective (September 18, 2023), https://www.aei.org/research-products/report/estimating-the-cost-of-new-treatments-for-diabetes-and-obesity/.

[278] Simon van der Schans et al., "The impact of patent expiry on drug prices: insights from the Dutch market," *Journal of Market Access & Health Policy* 9, no. 1 (2020), https://doi.org/10.1080/20016689.2020.1849984; Gerard T. Vondeling, Qi Cao, Maarten J. Postma, and Mark H. Rozenbaum, "The Impact of Patent Expiry on Drug Prices: A Systematic Literature Review," *Applied Health Economics and Health Policy* 16, no. 5 (2018): 653-60, https://doi.org/10.1007/s40258-018-0406-6.

[279] Nadia Bey, "The Biopharma Patent Cliff: 9 Drugs Losing Exclusivity by the End of 2023," *BioSpace*, https://www.biospace.com/article/9-drugs-losing-patents-or-exclusivity-clauses-by-the-end-of-2023.

[280] Joseph Briggs et al., "The Economic Potential of Accelerated Healthcare Innovation," Goldman Sachs Research (February 2024).

anti-obesity medications could potentially raise GDP levels by 0.1 percent to 1.1 percent with a median GDP boost of 0.4 percent.

Pricing also has a large impact when estimating the potential benefits of GLP-1s to the Federal government. As debates continue as to whether Medicare and Medicaid should cover these drugs, it is important to have an accurate estimate of their long-term costs. The Congressional Budget Office (CBO) has made note of the potential savings from GLP-1s and has solicited further information about the drugs, such as take-up rates and long-term cost projections given changing pricing.[281] If prices fall enough to where it becomes cost effective for the Federal government to cover these drugs, GLP-1s could drastically improve the nation's overall fiscal situation, while ensuring Americans live longer, healthier lives. For this reason, it is important to foster a regulatory environment in which innovators have the ability test and design new drugs without excessive intervention that unreasonably impedes progress.

Economic and Industry Changing Potential

In addition to the overall reduced expenditures on healthcare, reducing obesity would change the types of healthcare individuals consume. The prevalence of obesity comorbidities such as cardiovascular disease, osteoarthritis, sleep apnea, etc. would decline and, therefore, healthcare expenditures on these diseases would also fall. Reduced demand for these treatments could drive down healthcare costs and insurance premiums for all consumers as overall demand for healthcare falls. Demand for treatments related to obesity, such as joint and bariatric surgery, may also fall,

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[281] Phill Swagel, "A Call for New Research in the Area of Obesity," Congressional Budget Office, October 5, 2023, https://www.cbo.gov/publication/59590.

leading to lower prices for other types of obesity-related treatments.

A dramatic reduction in obesity due to GLP-1s could have a widespread impact on other sectors of the economy beyond healthcare. For example, GLP-1s are also observed to be impacting consumers' food choices. Initial survey data suggests that after starting on an anti-obesity medication, patients consumed more healthy and less unhealthy food.[282] These survey results fall in line with the medical literature on GLP-1s, which suggests that these drugs reduce caloric consumption and food cravings.[283] Widespread use of GLP-1s could have a large impact on the restaurant and food industry as consumer preferences shift and consumers choose to eat less and prefer healthier foods. These preference changes could have a widespread impact on the agricultural sector and global supply chains if consumers suddenly demand less processed food and less food overall. Changing consumption habits may already be occurring as food industry executives have already made note of GLP-1s and their potential as a headwind for the snack food industry and food industry as a whole. In October 2023, the CEO of Walmart reported a decline in overall food purchases that may be attributable to GLP-1 usage.[284] Although it is too early to tell the magnitude of the impact of these drugs on the food industry, the fact that executives have recognized them as a potential business headwind signifies that they may have industry-changing potential.

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[282] Morgan Stanley, "Could Obesity Drugs Take a Bite Out of the Food Industry?", September 5, 2023, https://www.morganstanley.com/ideas/obesity-drugs-food-industry.

[283] Blundell et al., "Effects of once-weekly semaglutide," 1248-49.

[284] Brendan Case and Shelly Banjo, "Ozempic Is Making People Buy Less Food, Walmart Says," *Bloomberg*, October 4, 2023, https://www.bloomberg.com./news/articles/2023-10-04/walmart-says-ozempic-weight-loss-drugs-causing-slight-pullback-by-shoppers.

Box 4-1: Nutrition

Changing food consumption habits are important as diet is understood to be one of the main factors contributing to the U.S.' comparatively high obesity rates.[285] Before the dramatic rise in obesity rates starting in the 1980s, poor nutrition in the United States was largely due to calorie deficits rather than surpluses.[286] Today, poor nutrition is more likely to be due to an excessive amount of calories, fats, and unhealthy added sugars.[287] To combat poor nutrition, the United States has a variety of food programs, including the Supplemental Nutrition Assistance Program (SNAP), the Emergency Food Assistance Program (TEFAP), and the Commodity Supplemental Food Program (CSFP).[288] These programs are funded through an omnibus bill known as the farm bill, which is authorized every five years and establishes agricultural and nutrition policy.[289]

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[285] Varundeep Rakhra et al., "Obesity and the Western Diet: How We Got Here," *Missouri Medicine* 117, no. 6 (2020): 536-38, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7721435/.

[286] Institute of Medicine (US) Committee on Examination of Front-of-Package Nutrition Rating Systems and Symbols, *Front-of-Package Nutrition Rating Systems and Symbols: Phase I Report*, ed. Ellen A. Wartella et al. (National Academies Press [US], 2010), https://doi.org/10.17226/12957; Chris Edwards, "SNAP: High Costs, Low Nutrition." *Cato Institute*, September 1, 2023, https://www.cato.org/briefing-paper/snap-high-costs-low-nutrition.

[287] Dietary Guidelines Advisory Committee (DGAC), *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2020-2025*, U.S. Department of Health and Human Services, U.S. Department of Agriculture, https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials.

[288] Feeding America, "Federal Food Assistance Programs," accessed May 2024, https://www.feedingamerica.org/take-action/advocate/federal-hunger-relief-programs.

[289] United States Senate Committee on Agriculture, Nutrition, and Forestry, "The Farm Bill," https://www.agriculture.senate.gov/farm-bill.

The farm bill was set to be reauthorized in 2023 and would authorize more than $120 billion a year in spending on food assistance programs like SNAP and another $30 billion on various subsidies for farming and food production.[290] Last year's *Response* overviewed the ways in which nutrition programs can be reformed to better achieve their goals, which is improving nutrition.[291] JEC Republicans concluded that the government should avoid policies that create negative externalities in which unhealthy behavior is exacerbated or encouraged. A specific aspect of farm policy that has been under significant scrutiny are the farming subsidies that provide insurance, loss coverage, and disaster aid to farmers of over twenty crops.[292] The largest beneficiaries of these premium subsidies are corn, soy, and wheat producers who receive nearly 70 percent of all premium farm subsidies.[293]

Given the type of crops being subsidized, the academic literature suggests that these subsidies may distort the market for food, which leads to the production of cheaper, and more calorie dense food. Research suggests that subsidies reduce crop diversification by mitigating the risks of poor crop yields and volatile prices.[294] Alternatively, just like with any other investment, farmers could mitigate risk through diversification of the types of crops planted. The reduced need to diversify crops in conjunction with the

[290] Chris Edwards, "Farm Bill 2023 and Obesity," Cato Institute blog, April 6, 2023, https://www.cato.org/blog/farm-bill-2023-obesity.
[291] JEC Republicans, *Response*, 57-59.
[292] Chris Edwards, "Cutting Federal Farm Subsidies," Cato Institute blog, August 31, 2023, https://www.cato.org/briefing-paper/cutting-federal-farm-subsidies#types-farm-subsidy.
[293] Environmental Working Group, "Share of premium subsidies by crop, 1995-2023," https://farm.ewg.org/cropinsurance.php?fips=00000&summpage=PS_BY_CROP®ionname=theUnitedStates.
[294] Chris Edwards, "Agricultural Subsidies," Downsizing the Federal Government, April 16, 2018, https://www.downsizinggovernment.org/agriculture/subsidies.

discrepancy in the types of crops receiving the most subsidies may be artificially suppressing the production of more healthy crops like fruits and vegetables.[295] Jackson et al. finds that the price of fruits and vegetables has increased in real dollar terms since 1985, meanwhile the cost of sugar, fats, and soft drinks has fallen.[296] Although it cannot be casually established that subsidies are the reason for these price changes, it follows that subsidies for certain foods could lead to increased production and therefore lower costs of certain foods for consumers.

That said, the academic literature on the effect of these subsidies on obesity is mixed. Alston, Sumner, and Vosti find that the impact of farm policy on obesity rates has been insignificant due to the relatively small impact that the subsidies have on price.[297] On the other hand, Franck, Gandi, and Eisenberg find that "Although findings suggest that eliminating all subsidies would have a mild impact on the prevalence of obesity, a revision of commodity programs could have a measurable public health impact on a population scale, over time."[298]

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[295] Paulina Enck, "PRIMER: Agriculture Subsidies and Their Influence on the Composition of U.S. Food Supply and Consumption," American Action Forum press release, November 3, 2021, https://www.americanactionforum.org/press-release/primer-agriculture-subsidies-and-their-influence-on-the-composition-of-u-s-food-supply-and-consumption/.

[296] Richard J. Jackson et al., "Agriculture Policy Is Health Policy," *Journal of Hunger & Environmental Nutrition* 4, no. 3-4 (2009): 393-408, https://doi.org/10.1080/19320240903321367.

[297] Julian M. Alston, Daniel A. Sumner and Stephen A. Vosti, "Farm Subsidies and Obesity in the United States: National Evidence and Internation Comparisons," *Food Policy* 33, no. 6, (2008): 470-79, https://doi.org/10.1016/j.foodpol.2008.05.008.

[298] Caroline Franck, Sonia M. Grandi and Mark J. Eisenberg, "Agricultural Subsidies and the American Obesity Epidemic," *American Journal of Preventative Medicine* 45, no. 3 (2013): 327-33, https://doi.org/10.1016/j.amepre.2013.04.010.

The inconclusive nature of the findings on the impact of farm subsidies on obesity rates warrants further research. Especially as Congress continues discussions around the farm bill reauthorization, it is necessary for policymakers to have a clear understanding of the health impacts of its farm policy. Given the astounding costs of obesity, policymakers should be sensitive to how policies could adversely affect nutrition and, therefore, obesity.

Behavioral Changes

The increased disposable income that would come from people spending less on healthcare and food could also impact other sectors like the clothing and fitness industry. Individuals using anti-obesity medication (AOMs) reported exercising more and changing their clothing consumption following starting the drug.[299] Individuals on AOMs also reported buying more athleisure wear and less luxury clothing items and reported being twice as likely to engage in weekly exercise since taking the drug. While some of this change in behavior may be due to selection bias, i.e. people taking these drugs now are more inclined to engage in healthier habits than the general population would be if given GLP-1s, these responses at least signal how GLP-1s could be changing consumption and behavioral choices. It is not currently clear that distributing AOMs to the general population would yield the same results, but these initial survey results show promise.

A large reduction in obesity would have widespread positive effects on both Federal spending and the health and behavior of the country overall. As behavior changes and people become more

[299] Zachariah Reltano, "Food for Thought: The Potential Ripple Effect of GLP1s," Ro, October 10, 2023, https://ro.co/weight-loss/potential-ripple-effect-of-glp1s/.

productive and have higher incomes due to lower BMI, dramatic changes could occur in nearly all sectors of the economy. Even seemingly unrelated areas, like military recruitment, could see improvements as individuals become healthier and thus more combat ready. The micro and macroeconomic effects of these drugs could also have large implications on demographic indicators such as fertility and labor supply as people become more productive due to reduced weight. Research suggests that obesity puts women at a greater risk of infertility and that reductions in BMI have been shown to improve fertility outcomes.[300] Reductions in BMI could expand the labor force both through increased fertility and through individuals returning to the labor force who were previously unable to work due to obesity-related health issues. Ultimately, GLP-1s offer a potential revolutionary step forward in health and offer the potential to materially improve the economic outlook through a large reduction in obesity.

Call for Further Research

Given how quickly obesity treatments are evolving, it is imperative for researchers to have access to timely and accurate data on the effectiveness of these drugs and their pricing. As Congress considers expanding Medicare coverage to include anti-obesity medication, it is necessary to consider all the potential economic effects and not restrict the analysis to the 10-year window that is typical for legislation. CBO recently published a report that identified a shortfall of data and research, specifically regarding the effect of targeting the Medicare coverage of anti-obesity medications to cases that would substantially reduce

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[300] Erica Silvestris, Giovanni de Pergola, Raffaele Rosania, and Giuseppe Loverro, "Obesity as Disruptor of the Female Fertility," *Reproductive Biology and Endocrinology* 16, no. 22 (2018), https://doi.org/10.1186/s12958-018-0336-z.

healthcare costs.[301] JEC Republicans encourage CBO to use outside-the-box approaches to give Congress and public health researchers readily available analysis of policy proposals.

For example, using currently available data, CBO could evaluate a series of breakeven points to determine where the cost of policies that expand Medicare coverage to targeted individuals, such as those suffering from Class 3 obesity or those with certain comorbidities, is equivalent to reductions in other government expenses. This information would give policymakers the tools to craft fiscally responsible anti-obesity policies.

The budgetary impact of covering AOMs for obese individuals who are on Medicaid should also be analyzed. Given that the Medicaid population is generally younger than the Medicare population, this could have a correspondingly larger effect on long-term healthcare spending given the longer window through which reductions could take effect. Such analysis should explicitly consider the avoided future healthcare costs attributable to preventing any projected increase in obesity severity in absence of the intervention. It may be the case that policies that have a larger upfront cost result in longer-term savings as certain comorbidities that are costly to the Federal government are avoided.

CBO should also consider the potential of rapid price reductions of AOMs. As of September 2023, an estimated 74 anti-obesity medications are in some phase of clinical trials.[302] If additional AOMs come to market or become available as generics, there might be significant impacts on the price of these drugs, and

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[301] Swagel, "A Call for New Research in the Area of Obesity."

[302] Elaine Chen, Allison DeAngelis, and J. Emory Parker, "Stat+ Obesity Drug Tracker," *Stat*, September 12, 2023, https://www.statnews.com/2023/09/12/new-weight-loss-drug-tracker-novo-nordisk-eli-lilly/.

scoring could be affected. Given the uncertainty surrounding various aspects of AOMs, such as long-term price, take-up rates, and mean weight reductions, CBO should account for these uncertainties when scoring any relevant legislation.

Macroeconomic Effects

Accurately estimating the fiscal impact of AOMs will also require tracking and assessing the macroeconomic effects of a reduction in obesity rates. How might economic measures such as labor force participation and productivity be impacted, and how would incorporating changes to these economic indicators impact the scoring of Medicare and Medicaid coverage of anti-obesity medications? As discussed in the prior section, AOMs seem to at least have some impact on individuals' behavior. It may be the case that a reduction in obesity results in more individuals returning to the workforce and an aggregate increase in productivity. This could lead to greater tax revenues than anticipated, which should be reflected in the scoring of a bill that results in more individuals using AOMs. As CBO and other researchers estimate the impact of AOMs, it is important to assess how they may impact economic measures beyond healthcare spending, especially regarding labor supply.

Need for Additional Data

As the JEC Republicans and others continue their obesity research, it is imperative to have access to timely and accurate data. Especially as the anti-obesity healthcare sphere evolves rapidly, it is important for there to be consistent and detailed obesity data. Regularly updated data on the prevalence and characteristics of obesity in America is a valuable tool in both crafting and assessing the effectiveness of anti-obesity policy. Specifically, data on the Federal expenditures associated with each obesity class and their various comorbidities would be valuable as debates continue over

whether Medicare should cover AOMs. Additionally, greater data transparency from the private sector would allow researchers to better estimate the effects of AOMs. Data such as take-up rates, average time spent on the medication, mean weight reductions by obesity class, and average annual costs are all important pieces to understanding the impact of AOMs. Greater data transparency can help better inform researchers and policymakers as they move forward in addressing the obesity crisis.

CHAPTER 5: THE ROLE OF ARTIFICIAL INTELLIGENCE IN GOVERNANCE

As the other Chapters of the *Response* have reiterated, the United States faces a grave fiscal trajectory. The U.S. Federal debt is on an unsustainable path that could have devastating consequences if unaddressed.[303] As noted by the Blanchard-inspired fiscal balance framework in Chapter 1, inducing economic growth to increase the overall size of the economy will help to stabilize our debt-to-GDP ratio. This Chapter explores the potential economic and fiscal benefits of the broad adoption of artificial intelligence (AI) and the opportunity it has to improve governance to accelerate economic growth. First, this Chapter examines the potential economic benefits of the broad adoption of AI. Then, it explores adopting smarter regulatory approaches to reduce bureaucracy and raise economic growth. It then discusses the use of AI to make government more effective and efficient, before concluding with the potential for AI to implement a smarter regulatory landscape and grow the economy.

The Economic Growth Potential of Artificial Intelligence Adoption

Technological advancement can increase labor productivity, which can unlock faster economic growth. There are three primary components to economic output: the size of the working population, its skill level, and the number of hours worked. Technological innovation raises output per labor hour. When each

[303] Joint Economic Committee (JEC), *Republican Response to the Economic Report of the President* (U.S. Congress Joint Economic Committee, 2023), https://sen.gov/LVQYY.

unit of labor results in greater output, incomes, purchasing power, and economic growth rise.[304]

Recent innovations in AI present significant opportunities for increasing productivity and, thus, economic growth. AI uses modern computing power to identify patterns in data on which a given model is trained. AI can then make predictions or classifications when fed new data.[305] A popular example of its broad use is in large language models (LLMs), such as Chat-GPT. These technologies can assist in coding, writing, editing, brainstorming, and answering technical questions—even medical diagnoses. This technology has been found to notably improve the efficiency of software engineers and economists, as well as significantly accelerate writing speed.[306] AI can also be employed in chatbots, fraud detection, and text analysis of large volumes of documents. It can also facilitate more accurate decision-making.[307] While there will likely be some distributional effects

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[304] YiLi Chien, "What Drives Long-Run Economic Growth?", Federal Reserve Bank of St. Louis, June 1, 2015, https://www.stlouisfed.org/on-the-economy/2015/june/what-drives-long-run-economic-growth.

[305] IBM, "What is AI?", https://www.ibm.com/topics/artificial-intelligence.

[306] Eirini Kalliamvakou, "Research: quantifying GitHub Copilot's impact on developer productivity and happiness," GitHub blog, September 7, 2022, https://github.blog/2022-09-07-research-quantifying-github-copilots-impact-on-developer-productivity-and-happiness/; Anton Korinek, "Language Models and Cognitive Automation for Economic Research," NBER Working Paper no. 30957 (February 2023), https://doi.org/10.3386/w30957; Shakked Noy and Whitney Zhang, "Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence," Massachusetts Institute of Technology Working Paper (March 2023), https://economics.mit.edu/sites/default/files/inline-files/Noy_Zhang_1.pdf.

[307] Frederic Becker, Julian Skirzyński, Bas van Opheusden, and Falk Lieder, "Boosting Human Decision-making with AI-Generated Decision Aids," *Computational Brain & Behavior* 5 (2022): 467-90, https://doi.org/10.1007/s42113-022-00149-y; Sukwoong Choi, Hyo

on labor (for example, there may be fewer lawyers required as a result of AI), research suggests that labor demand will increase as a result of large-scale AI adoption, increasing employment.[308] By aiding firms to serve more customers, process more transactions, access more information, increase aggregate intellectual capital, and improve efficiency of processes, AI supports increases in productivity and economic growth.[309]

Because widespread adoption of AI is a relatively new phenomenon, many of the economic growth effects have not been studied extensively. Accurate forecasts of AI's impact on economic growth and other economic variables, such as employment, are limited. Nevertheless, research has found that the number of AI patents (a proxy for AI adoption and innovation) has a significant, positive effect on economic growth. Notably, a 1 percent increase in the number of AI patents results in a 0.00223–0.00367 percentage point increase in the GDP per-capita growth rate (five-year average) in advanced countries.[310] Thus, under this assumption, if the number of AI patents doubled, the rate of medium-term economic growth would be expected to increase by 0.2 to 0.4 percentage points. Increased adoption of AI would have positive implications for growth and, subsequently, the overall size of the economy.

Kang, Namil Kim, and Junsik Kim, "How Does AI Improve Human Decision-Making? Evidence from the AI-Powered Go Program," USC Marshall School of Business Research Paper, October 1, 2023, http://dx.doi.org/10.2139/ssrn.3893835.

[308] Lili Yan Ing and Gene M. Grossman, *Robots and AI: A New Economic Era* (2022), https://doi.org/10.4324/9781003275534.

[309] Philip Trammell and Anton Korinek, "Economic Growth under Transformative AI," NBER Working Paper no. 31815 (October 2023), https://doi.org/10.3386/w31815.

[310] Julius Tan Gonzales, "Implications of AI innovation on economic growth: a panel data study," *Journal of Economic Structures* 12, no. 13 (2023), https://doi.org/10.1186/s40008-023-00307-w.

Given the magnitude of its potential benefits, Congress should be cautious to avoid deterring investment or hindering innovation in this space. Policymakers should not require entrepreneurs to seek permission to create new AI products or services, nor implement onerous and unnecessary regulations. Restricting the invention of new AI tools and products could mean missing out on potential lifesaving and productivity-enhancing technologies that could vastly improve human and economic well-being.

While the potential of AI to improve economic growth is significant, the fiscal problem warrants the exploration of other avenues to boost economic growth.[311] Given the mass of regulatory accumulation—which the Biden Administration accelerated—and the costs that poorly constructed regulations impose on economic activity, the current regulatory framework should be made smarter to reduce bureaucracy and improve economic growth, thus helping to balance the fiscal situation.[312]

The Impact of Regulation on Economic Growth

Regulations are rules promulgated by Federal agencies in response to authority granted to them by statute. As of 2021, there are over 1.3 million Federal regulatory restrictions.[313] There is limited oversight and review of regulations once issued and limited

[311] Congressional Budget Office (CBO), *The Long-Term Budget Outlook: 2024 to 2054* (March 2024): Table 1, https://www.cbo.gov/system/files/2024-03/51119-2024-03-LTBO-budget.xlsx.
[312] Dan Goldbeck, "The Spring Surge Resumes," *American Action Forum*, May 13, 2024, https://www.americanactionforum.org/week-in-regulation/the-spring-surge-resumes/.
[313] QuantGov, "RegData 4.1,"," Mercatus Center, https://quantgov-bulk-downloads.s3.amazonaws.com/RegData-US_4-1.zip.

coordination between agencies to ensure regulations do not conflict.

Regulation can dampen economic activity in various ways, including:

- distorting resource utilization;[314]
- restricting investment;[315]
- imposing labor and capital costs due to diverting resources to compliance, reducing companies' investment in innovation;[316]
- creating barriers to market entry;[317]
- reducing business dynamism, which disproportionally falls on small businesses, making businesses larger and older;[318]
- hampering entrepreneurship and firm formation, which has a downward effect on wages and total employment, leading to

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[314] Phil Lewis, Alice Richardson, and Michael Corliss, "Compliance Costs of Regulation for Small Business," *Journal of Business Systems, Governance & Ethics* 9, no. 2 (2015), https://doi.org/10.15209/jbsge.v9i2.715.

[315] Lewis, Richardson, and Corliss, "Compliance Costs of Regulation for Small Business."

[316] Michael Mandel and Diana G. Carew, "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform," Progressive Policy Institute Policy Memo, May 2013, https://www.progressivepolicy.org/wp-content/uploads/2013/05/05.2013-Mandel-Carew_Regulatory-Improvement-Commission_A-Politically-Viable-Approach-to-US-Regulatory-Reform.pdf; Alberto Alesina, Silvia Ardagna, Giuseppe Nicoletti, and Fabio Schiantarelli, "Regulation and Investment," NBER Working Paper no. 9560 (March 2003), https://doi.org/10.3386/w9560.

[317] Alesina, Ardagna, Nicoletti, and Schiantarelli, "Regulation and Investment."

[318] Dustin Chambers, Patrick McLaughlin, and Tyler Richards, "Regulation, Entrepreneurship, and Firm Size," Mercatus Center Working Paper (April 26, 2018), https://www.mercatus.org/research/working-papers/regulation-entrepreneurship-and-firm-size.

less competition, further reducing productivity and innovation;[319] and

- raising prices as increased costs are passed on to consumers, increasing poverty and inequality.[320]

The ultimate result of misguided or overly burdensome regulation is forgone investment, lower labor productivity, and diminished output.[321]

Only 137 of the 36,255 final regulations issued between 2007 and 2016 had estimates of quantifiable benefits and costs.[322]. The cumulative cost of all regulations is larger than their summed costs.[323] Moreover, as the volume of regulation grows, so does the

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[319] James Bailey and Diana Thomas, "Regulating Away Competition: The Effect of Regulation on Entrepreneurship and Employment," Mercatus Center Working Paper (September 9, 2015), https://www.mercatus.org/students/research/journal-articles/regulating-away-competition-effect-regulation-entrepreneurship.

[320] Dustin Chambers and Courtney A. Collins, "How Do Federal Regulations Affect Consumer Prices? An Analysis of the Regressive Effects of Regulation," Mercatus Center Working Paper, (February 23, 2016), https://www.mercatus.org/research/working-papers/how-do-federal-regulations-affect-consumer-prices-analysis-regressive; Dustin Chambers, "The Human Cost of Regulations and Some Possible Solutions," Mercatus Center Working Paper (November 17, 2022), https://www.mercatus.org/research/policy-briefs/human-cost-regulations-and-some-possible-solutions.

[321] Philippe Aghion, Antonin Bergeaud, and John Van Reenen, "The Impact of Regulation on Innovation," NBER Working Paper no. 28381 (January 2021), https://doi.org/10.3386/w28381.

[322] James Broughel and Richard A. Williams, "More Information Needed on the Benefits and Costs of Regulations," Mercatus Center Expert Commentary, August 22, 2018, https://www.mercatus.org/economic-insights/expert-commentary/more-information-needed-benefits-and-costs-regulations.

[323] Council of Economic Advisers (CEA), *Economic Report of the President* (The White House, 2019): 81, https://www.whitehouse.gov/wp-content/uploads/2021/07/2019-ERP.pdf.

risk that they conflict with each other. For example, vehicle safety requirements favor larger and heavier vehicles, but fuel economy standards favor the opposite. Car companies must design vehicles that fit both parameters, resulting in excess costs to consumers.[324]

Cumulative regulation provides a negative drag on economic growth, particularly for developed countries like the United States.[325] Since 1970, total regulatory restrictions, as measured by a count of the words, "shall," "must," "may not," "required," and "prohibited" in the Code of Federal Regulations (CFR) have tripled, creating significant headwinds for economic growth.[326]

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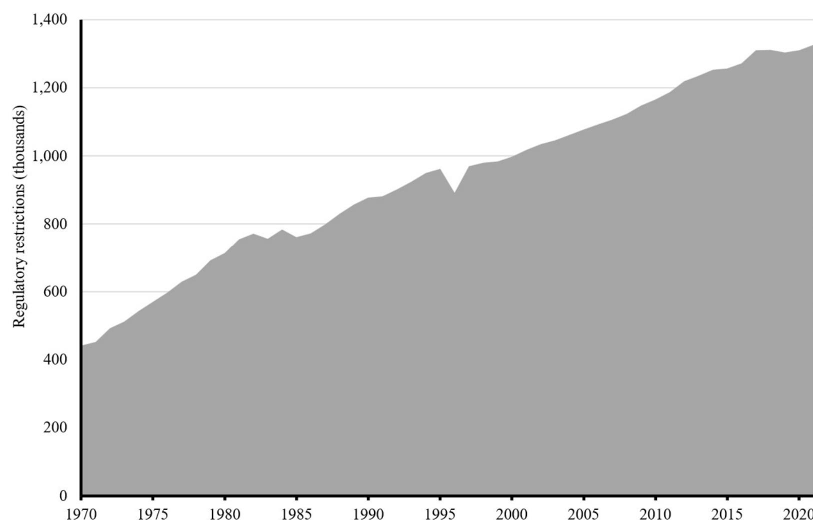
[324] Mandel and Carew, "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform."

[325] John Dawson and John Seater, "Federal Regulation and Aggregate Economic Growth," *Journal of Economic Growth* 18 (2013): 137-177, https://doi.org/10.1007/s10887-013-9088-y; Simeon Djankov, Caralee McLiesh, and Rita Maria Ramalho, "Regulation and Growth" (2006), https://ssrn.com/abstract=893321; Jamal Ibrahim Haidar, "The impact of Business Regulatory Reforms on Economic Growth," Centre d'économie de la Sorbonne Working Paper (2012), https://shs.hal.science/halshs-00717423; CEA, *Economic Report of the President* (The White House, 2018): 73, https://www.whitehouse.gov/wp-content/uploads/2021/07/2018-ERP.pdf.

[326] QuantGov, "Bulk Downloads;" Patrick McLaughlin, Jonathan Nelson, and Thurston Powers, "RegData U.S. 4.1 User's Guide," March 15, 2022, https://quantgov-documentation.s3.amazonaws.com/regdata_4_1_user_guide.pdf.

Figure 5-1: Total Regulatory Restrictions in the Code of Federal Regulations, 1970 -2021



Source: QuantGov, RegData 4.1 "restrictions_2_0"

According to Coffey et. al, if regulatory restrictions were frozen at their 1980 levels, the U.S. economy would have been about 25 percent larger in 2012. This would amount to an average annual GDP growth rate 0.8 percentage points higher per year over the period from 1980 to 2012.[327]

Box 5-1: GDP in 2023 Under 1980 Regulation

Assuming this average trend of increased growth would have continued through 2023, JEC Republicans estimate that the economy would be nearly 40 percent larger than it was last year.[328]

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[327] Bentley Coffey, Patrick McLaughlin, and Pietro Peretto, "The Cumulative Cost of Regulations," Mercatus Center Working Paper (April 26, 2016), https://www.mercatus.org/research/working-papers/cumulative-cost-regulations.

[328] 39.4 percent larger

Mathematically, this can be represented as follows.

$$ERGDP_{1980+t} = RGDP_{1980} * (1 + \delta + \varepsilon)^t$$
$$\Delta = ERGDP_{1980+t} - RGDP_{1980}$$

t = Years since 1980
δ = Average real GDP growth rate from 1980 to 2023 (2.67 percent)
ε = Average annual increase in growth with 1980-level regulation (~0.8 percentage points per year)
Δ = Foregone GDP growth
$RGDP$ = Real GDP, chained 2017 dollars
$ERGDP$ = Estimated real GDP, chained 2017 dollars

An economy nearly 40 percent larger would mean GDP would be over $38 trillion in 2023, far larger than the $27.4 trillion recorded in 2023. Keeping the current government debt profile static, the gross Federal debt would be under 90 percent of GDP, compared to 121.6 percent observed in the fourth quarter of 2023.[329] While some regulations added since 1980 may have benefits that outweigh their costs, the point remains: cumulatively, regulations lead to slower economic growth.

Reducing Bureaucracy with Smart Regulation to Boost Economic Growth

As increasing regulations slow economic growth, reducing bureaucracy through the implementation of smarter regulatory

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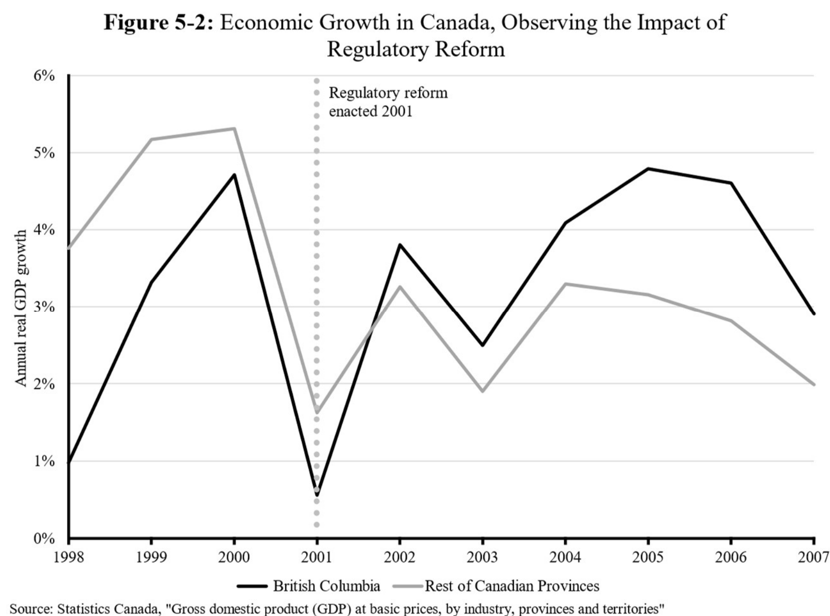
329 U.S. Office of Management and Budget, "Total Public Debt as Percent of Gross Domestic Product [GFDEGDQ188S]", retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GFDEGDQ188S.

approaches presents an avenue to increase growth. Because addressing excessive regulatory burdens does not materially shrink receipts or increase outlays, it presents a pragmatic opportunity to help restore fiscal balance.

McLaughlin and Coffey study the effect of repealing excessively burdensome rules on economic growth using data from British Columbia, Canada. Regulatory reform enacted in 2001 reduced the quantity of the most bureaucratic provincial regulatory restrictions by nearly 40 percent. They found that this led to an increase in annual economic growth of approximately 1 percentage point. The increase in the growth rate is shown in Figure 5-2.[330]

Figure 5-2: Economic Growth in Canada, Observing the Impact of Regulatory Reform



Source: Statistics Canada, "Gross domestic product (GDP) at basic prices, by industry, provinces and territories"

[330] Coffey, McLaughlin, and Peretto, "The Cumulative Cost of Regulations."

Box 5-2: British Columbia Bureaucracy Reform

Appropriately called the "Red Tape Reduction" program, in 2001, the province of British Columbia, Canada enacted an initiative to eliminate "regulatory excess," targeting regulations that limited economic activity with no tangible benefits. The program mandated the reduction in the quantity of regulatory restrictions by one-third by 2004.[331] By establishing a requirement that each new regulation implemented required the repeal of another, and by creating a Minister of Deregulation and the Office of Regulatory Reform, British Columbia surpassed their goal. Regulatory requirements fell by 36 percent from their 2001 level. Controlling for other policy changes, research finds that the reforms corresponded to an increase in annual economic growth of 1 percentage point. The improvements brought British Columbia from growing significantly below the national growth rate to well above it in the five years following the implementation of the program.[332]

This finding suggests that addressing bureaucratic excess improves economic growth not only in theory, but also in practice.

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[331] Laura Jones, "Cutting Red Tape in Canada: A Regulatory Reform Model for the United States?", Mercatus Center Research Paper (November 11, 2015), https://www.mercatus.org/research/research-papers/cutting-red-tape-canada-regulatory-reform-model-united-states.

[332] Patrick McLaughlin and Bentley Coffey, "Regulation and Economic Growth: Evidence from British Columbia's Experiment in Regulatory Budgeting," Mercatus Center Working Paper (June 1, 2021), https://www.mercatus.org/research/working-papers/regulation-and-economic-growth; Juan de Lucio and Juan S. Mora-Sanguinetti, "New Dimensions of Regulatory Complexity and Their Economic Cost. An Analysis Using Text Mining," Banco de España Working Paper no. 2107 (February 9, 2021), http://dx.doi.org/10.2139/ssrn.3782403.

Vice Chairman Schweikert has previously proposed and sponsored legislation to improve the current regulatory framework: H.R. 4335, H.R. 283, and H.R. 2676. H.R. 4335, the NEPA Accountability and Enforcement Act, creates deadlines for Federal agencies to complete reviews of the environmental effects of proposed major Federal actions and imposes penalties for agencies that do not comply with these deadlines. H.R. 283, the Crowd Sourcing of Environmental Data Act of 2021, authorizes states to monitor certain air pollutants and restricts the EPA from preventing states from relying on said data to meet national pollutant standards. H.R. 2676, the Small Business Health Relief Act of 2011, repeals burdensome provisions added to the Internal Revenue Code as a result of the Patient Protection and Affordable Care Act. Further, he co-sponsored H.R. 3794, the Public Land Renewable Energy Development Act of 2019, which sets forth improvements to making permitting renewable energy projects on public lands easier. He also sponsored H.R. 190, the Saving Gig Economy Taxpayers Act, which raises the reporting requirement for third party settlement platforms to $20,000, and more. These proposals address bureaucracy across several sectors. Regrettably, instead of addressing regulatory excess to support economic growth, the Biden Administration has taken the opposite approach.

Using AI to Improve Governance

Addressing regulatory excess provides an opportunity to grow the economy and improve governance. A more efficient and responsive government would provide a better backdrop for economic growth and could also lead to lower outlays, further correcting the fiscal trajectory. Beyond its potential for improving economic growth, AI also presents the prospect of improving the efficacy and efficiency of government.

So long as AI innovation continues with limited interference from regulators, existing and new technologies will increase economic growth, and help government be more responsive, effective, and efficient. By automating tasks, improving administrative processes, and creating new methods of policy analysis and measurement, governance can improve, and the economic effects of AI could be fully realized. The potential of reducing deadweight loss due to administrative waste could lead to a decline in outlays, thereby reducing deficits without any policy changes.

While widespread adoption by administrative agencies across most functions has not yet been realized, there exist several examples of successful use cases across the Federal government. Many uses of AI in administrative agencies relate to science and research, distinct from policy, regulatory, or administrative functions. Examples of these include using AI to estimate the wind speed of hurricanes (National Aeronautics and Space Administration), assess water quality (National Oceanic and Atmospheric Administration), classify images to assist in monitoring endangered species (Department of the Interior), and more.[333] While scientific research currently makes up a sizeable share of the over 700 examples of AI usage in the Federal government, there remains a substantial number of use cases that are more closely related to reducing administrative burdens and making government more efficient and responsive.

A 2020 article published by Stanford Law School categorizes current uses for AI to improve governance in administrative agencies into five major categories. These are presented in Table 5-1.

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[333] AI.gov, "The Government is Using AI to Better Serve the Public," https://ai.gov/ai-use-cases/.

Table 5-1: Examples of AI use in Administrative Agencies[334]

Use Type	Description	Examples
Enforcement	Tasks that identify or prioritize targets of agency enforcement action	• Securities and Exchange Commission, Centers for Medicare and Medicaid Services, and Internal Revenue Service predictive enforcement tools. • Customs and Border Protection and Transportation Security Administration facial recognition systems. • Food Safety and Inspection Service prediction to inform food safety site testing.
Regulatory research, analysis, and monitoring	Tasks that collect or analyze information that shapes agency policymaking	• Consumer Financial Protection Bureau analysis of consumer complaints. • Bureau of Labor Statistics coding of worker injury narratives. • Food and Drug Administration analysis of adverse drug events.
Adjudication	Tasks that support formal or informal agency adjudication of benefits or rights	• Social Security Administration system for correcting adjudicatory errors. • U.S. Patent and Trademark Office tools for adjudicating patent and trademark applications.
Public services and engagement	Tasks that support the direct provision of services to the public or facilitate communication with the public for regulatory or other purposes	• U.S. Postal Service autonomous vehicles project and handwriting recognition tool. • Department of Housing and Urban Development and U.S. Citizenship and Immigration Services chatbots. • Agency analysis of submitted rulemaking comments.
Internal management	Tasks that support agency management of resources, including employee management, procurement, and maintenance of technology systems	• Department of Health and Human Services tool to assist procurement decision-making. • General Services Administration tool to ensure legal compliance of Federal solicitations. • Department of Homeland Security tool to counter cyberattacks on agency systems.

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[334] David F. Engstrom, Daniel E. Ho, Catherine M. Sharkey, and Mariano-Florentino Cuéllar, *Government by Algorithm: Artificial Intelligence in Federal Administrative Agencies*, Administrative Conference of the United States (2020), https://www.acus.gov/sites/default/files/documents/Government by Algorithm.pdf.

One notable example of AI's implementation in administrative agencies for improving policy efficacy is at the Food and Drug Administration (FDA). AI has been used to enhance data collection and surveillance during the clinical trial period and for post-market surveillance of drugs following FDA approval.[335] At the FDA, it monitors adverse drug events using data from reports that were filed to the Federal Adverse Event Reporting System (FAERS). Using this technology, analysts at the FDA have been able to find relationships previously undetected by pre-market trials between specific adverse effects and particular drugs. Expanding this type of analysis to other agencies and use cases could help improve understanding of potentially unconsidered consequences of regulation. Feedback from programs such as this could help shape policy.

Another noteworthy use of AI is to improve engagement with the public. AI chatbots can take in information and provide answers or relevant documentation, making interfacing with government more efficient and seamless (i.e., Emma at U.S. Citizenship and Immigration Services).[336] Furthermore, AI can make government more responsive to public sentiment, as observed at the Federal Communications Commission (FCC) and Consumer Financial Protection Bureau (CFPB). These agencies receive comments from the public in response to rulemaking actions. AI has been used to analyze the sentiment of batches of comments to improve understanding of public feedback. Use of this technique across the

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[335] U.S. Food & Drug Administration, "Using Artificial Intelligence & Machine Learning in the Development of Drug & Biological Products," FDA Discussion Paper (May 5, 2023), https://www.fda.gov/media/167973/download.

[336] U.S. Citizenship and Immigration Services, "Meet Emma, Our Virtual Assistant," U.S. Department of Homeland Security, https://www.uscis.gov/tools/meet-emma-our-virtual-assistant.

government can save countless paperwork hours and make the government more responsive to the input of the public.[337]

AI could also improve mandatory spending programs. The integration of AI technology could reduce costs without significant legislative changes.

Box 5-3: Administrative Waste in Federal Healthcare Programs

JEC Republicans estimate the total amount of waste in Federal healthcare expenditures. By relying on the findings from three recent studies by Himmelstein et al., Cutler, and Sahni et al., that take the most expansive view of administrative waste in healthcare, JEC Republicans estimate a lower bound and median estimate of waste.[338] The estimate is represented mathematically below.

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[337] Engstrom et al., *Government by Algorithm*.

[338] David U. Himmelstein, Terry Campbell, and Steffie Woolhandler, "Health Care Administrative Costs in the United States and Canada, 2017," *Annals of Internal Medicine* 172, no. 2 (2020): 134-42, https://doi.org/10.7326/M19-2818; David M. Cutler, "Reducing Administrative Costs in U.S. Health Care," The Hamilton Project Policy Proposal, March 2020, https://www.hamiltonproject.org/assets/files/Cutler_PP_LO.pdf; Nikhil Sahni, George Stein, Rodney Zemmel & David M. Cutler, "The Potential Impact of Artificial Intelligence on Healthcare Spending," NBER Working Paper no. 30857 (January 2023), https://doi.org/10.3386/w30857.

Median estimate:

$$\text{FHAWME} = \beta \times \varepsilon \times \delta$$

FHAWME = Federal healthcare administrative waste, median estimate

δ = Average of administrative waste estimates as share of national healthcare expenditures across Himmelstein et al., Cutler, and Sahni et al. (44.1 percent)

ε = Average of administrative spending estimates as share of total healthcare expenditures, across Himmelstein et al., Cutler, and Sahni et al. (26.8 percent)

β = Total Federal healthcare spending in 2023 ($1,733 billion)[339]

Lower bound estimate:

$$\text{FHAWLE} = \beta \times \gamma \times \theta$$

FHAWLE = Federal healthcare administrative waste, lower bound estimate

θ = Lowest of administrative waste estimates as share of national healthcare expenditures across Himmelstein et al., Cutler, and Sahni et al. (21.3 percent)

γ = Lowest of administrative spending estimates as share of total healthcare expenditures, across Himmelstein et al., Cutler, and Sahni et al. (27.9 percent)

β = Total Federal healthcare spending in 2023 ($1,733 billion)

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[339] CBO, *The Budget and Economic Outlook: 2024 to 2034* (February 2024): Table 1-4, https://www.cbo.gov/system/files/2024-02/51118-2024-02-Budget-Projections.xlsx.

We conservatively estimate that between $100 to $200 billion or 6 to 12 percent of Federal healthcare spending can be attributed to administrative waste.[340]

Specific examples of AI's implementation to address inefficiencies in mandatory spending programs include being used to better process redeterminations of eligibility for Medicaid and preventing improper payments in Medicare programs, resulting in hundreds of billions in savings. Improper Medicaid payments were over $50 billion in FY2023, about one quarter of total improper payments made during the last fiscal year.[341]

Vice Chairman Schweikert has previously proposed legislation to support the adoption of AI in other potential Federal government use cases, such as H.R. 206, H.R. 7147, and H.R. 8283. H.R. 206, the Healthy Technology Act of 2023, establishes a legal framework to allow AI or machine learning (ML) technology to be eligible to prescribe drugs. H.R. 7147, the Medicare Transaction Fraud Prevention Act, would establish a pilot program for the Centers for Medicare and Medicaid to use AI to detect fraud in durable medical equipment purchases. H.R. 8283 would create an experimental program to test the efficacy of real time, AI-powered claims development tools for Medicaid. Moreover, the Vice Chairman had two amendments agreed to in H.R. 8580, the Military Construction, Veterans Affairs, and Related Agencies

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[340] Note that JEC Republican economists assume that the share of healthcare expenditures is equivalent between NHE and Federal government healthcare spending. Further note that in Culter, a range is provided for administrative waste as a share of NHE so the midpoint of said range, 30.5 percent, is utilized.

[341] U.S. Government Accountability Office, "Federal Government Made $236 billion "Improper Payments" Last Fiscal Year," March 26, 2024, https://www.gao.gov/blog/federal-government-made-236-billion-improper-payments-last-fiscal-year.

Appropriations Act of 2025. These support the Veterans Benefits Administration's utilization of AI to expedite claims and a study on the benefits of AI to streamline oversight, reduce fraud, and improve data accuracy and financial management practices at the department, respectively. Congress should consider these bills as well as other similar proposals to allow government agencies to adopt AI more readily in ways that minimize waste and improve administration of government services. Moreover, Congress could consider legislative changes to facilitate AI adoption in areas where it is currently limited or prohibited.

While there may be a moderate decrease in spending due to administrative waste reduction from the implementation of AI across government functions, increasing economic growth remains a more viable method of improving the fiscal situation. Congress can act to increase the implementation of AI in government to increase economic growth. This can be done by using AI to reduce excess bureaucracy and make existing regulation smarter.

How Artificial Intelligence, Machine Learning, and Natural Language Processing Can Enhance Regulatory Review

The emergence of AI technologies, such as Natural Language Processing (NLP) that allow for large-scale text analysis, provide an opportunity to improve regulatory review.[342] Given the volume of regulatory text in the CFR, a detailed manual review of the existing regulatory text is impractical. Implementing these technologies could assist in categorization and the identification of linguistic complexity and conflicting sentiments in existing regulations.

[342] NLP is an application of ML, which is a subfield of AI. NLP is focused on large-scale text analysis.

The use of AI, ML, and NLP to analyze the CFR has been done before. The RegData project at the Mercatus Center at George Mason University took a novel approach to measuring the quantity of regulatory restrictions in the CFR.[343] It used NLP to count regulatory restrictions and estimate total regulatory accumulation. Moreover, each individual restriction was classified into the most likely industry that the rule pertains to. [344]

To complement the categorization of regulations, these technologies can be used to identify the linguistic complexity of regulatory text. Linguistic complexity can be viewed as a proxy of a rule's complexity. Regulatory complexity is found to reduce productivity growth, a major component in economic growth.[345] The RegData project estimates linguistic complexity through two lenses: the median sentence length of text in each section or document and Shannon entropy. Shannon entropy is a measure of the density of information transmitted in text.[346]

Sections of regulatory text that are linguistic complexity outliers, such as NAICS code or date of regulation being added, could be targeted for review. Furthermore, NLP could be used to identify

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[343] Omar Al-Ubaydli and Patrick A. McLaughlin, "RegData: A Numerical Database on Industry-Specific Regulations for All United States Industries and Federal Regulations, 1997-2012," *Regulation & Governance* 11, no. 1 (March 2017): 109-123, https://doi.org/10.1111/rego.12107.

[344] Al-Ubaydli and McLaughlin, "RegData."

[345] de Lucio and Mora-Sanguinetti, "New Dimensions of Regulatory Complexity."

[346] C.E. Shannon, "A Mathematical Theory of Communication," *The Bell System Technical Journal* 27, no. 3 (1948): 379-423, https://doi.org/10.1002/j.1538-7305.1948.tb01338.x; Patrick McLaughlin, "RegData Canada: A Data-Driven Approach to Regulatory Reform," Mercatus Center Policy Brief, March 19, 2019, https://www.mercatus.org/research/policy-briefs/regdata-canada-data-driven-approach-regulatory-reform.

whether language is outdated. For example, the RegData model can detect the last date any given regulatory text's word count changed by more than 1 percent. Measures like this can help to identify regulations that are old and that should be brought up for review. [347]

While JEC Republicans have not found a use case for regulatory text in the literature, machine learning techniques have been used to identify conflicting sentiments and logical inconsistencies in text.[348] The application of these techniques to analyze regulatory text, particularly within each industry subcategory of regulation, can be used to help target rules for revision.

Research also finds that it is possible to predict how much regulatory discretion a particular agency has and detect the evolution of the location and scope of regulatory authority and action over time.[349] These approaches can further aid in the prioritization and identification of regulations to review.

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[347] McLaughlin, "RegData Canada;" McLaughlin, Nelson, and Powers, "RegData U.S. 4.1 User's Guide."

[348] Vishal Lingam, Sonika Bhuria, Madhavan Nair, Damanpreet Gurpreetsingh, Ankush Goyal, and Ayush Sureka, "Deep Learning for Conflicting Statements Detection in Text," *PeerJ Preprints* 6 (2018), https://doi.org/10.7287/peerj.preprints.26589v1; Satoshi Masuda, Tohru Matsuodani, and Kazuhiko Tsuda, "Detecting Logical Inconsistencies by Clustering Technique in Natural Language Requirements," *IEICE Transactions on Information and Systems* E99.D (2016): 2210-18, https://doi.org/10.1587/transinf.2015KBP0005.

[349] Sharyn O'Halloran, Sameer Maskey, Geraldine McAllister, David K. Park, and Kaiping Chen, "Data Science and Political Economy: Application to Financial Regulatory Structure," *The Russell Sage Foundation Journal of the Social Sciences* 2, no. 7 (2016): 87-109, https://muse.jhu.edu/article/644576; S. O'Halloran, K. Chen, R. Biswas, H. Kim, P. Liu, Y. Zhang, and Y. Zhou, "Delegating Regulation: European Union and Financial Markets," *Annales des Mines - Réalités industrielles* (2018): 91-111, https://doi.org/10.3917/rindu1.184.0091.

Incorporating AI, ML, and NLP into Traditional Approaches to Regulatory Reform

Traditional policy approaches to regulatory reform and review have a mixed history of success. While some are successful, they often are implemented temporarily then eliminated or have limited enforcement power. Given that AI can enable almost instantaneous analysis of regulations across numerous metrics, regulations that fit the parameters for potential reform can be identified easily. While AI cannot eliminate human discretion, it can be used to improve existing approaches to regulatory review and reform.

Regulatory Budgeting

Implemented effectively in British Columbia as well as in the Trump Administration through Executive Order 13771, regulatory budgeting is a procedure whereby the total quantity of regulations or regulatory restrictions is capped, the total economic impact of regulations or regulatory restrictions is limited, or existing rules must be repealed to add regulations.[350] The downside of this approach is that changes in administration can easily result in the overturning, repeal, expiry, or elimination of such policies.

The advancements in processing capability in AI make the identification process of expiring regulations more efficient and cost-effective. Decreasing the management costs of regulatory review could increase the potential of keeping such a policy. Similarly, an Obama-era Executive Order, 13610, tasks agencies

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[350] Trump White House Archives, "Presidential Executive Order on Reducing Regulation and Controlling Regulatory Costs," January 30, 2017, https://trumpwhitehouse.archives.gov/presidential-actions/presidential-executive-order-reducing-regulation-controlling-regulatory-costs/.

to regularly review their cumulative regulations to minimize overly complex, duplicative, and conflicting mandates.[351] Given that agencies are likely biased in their assessment of their own rules, Congress could consider passing legislation to centralize this form of retroactive review in OIRA—or in Congress itself—and compel the use of AI in the review process.

Regulatory Sunsetting

Used briefly in 2020 at the Department of Health and Human Services (HHS), regulatory sunsetting was implemented to force periodic reviews of regulations for their effect on small businesses. If the review was not undertaken or the regulation was not adequately defended, the regulation would expire.[352] This provides the opportunity to revise or eliminate poorly constructed regulations. While this approach to retrospective review appears to have proven successful at reducing old, irrelevant regulations, there appears to be limited coordination between agencies.

AI's ability to identify outdated language and conflicting sentiments and logical inconsistencies could improve the implementation of regulatory sunsetting. Congress may consider pursuing legislation that utilizes AI to force review and potential revision of regulations after a set period, or else the rule sunsets.

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[351] The White House, "Executive Order -- Identifying and Reducing Regulatory Burdens," May 10, 2012, https://obamawhitehouse.archives.gov/the-press-office/2012/05/10/executive-order-identifying-and-reducing-regulatory-burdens.

[352] James Broughel and Kofi Ampaabeng, "HHS's Innovative New Sunset Regulation," Mercatus Center Public Interest Comment, December 4, 2020, https://www.mercatus.org/research/public-interest-comments/hhss-innovative-new-sunset-regulation.

Regulatory Impact Analysis Reform

RIA involves producing cost-benefit analyses of each regulation.[353] While an important component of evaluating the impact and necessity of each regulation, the current approach to RIA lacks consistency across agencies, resulting in estimates that are not comparable across agencies, time, or subject matter. Moreover, the interactions between regulations are not typically measured.

RIA could also be improved by implementing AI to identify existing rules that may have interaction effects. Congress could pursue legislation that standardizes the RIA process, requiring the analysis and calculation of potential interaction effects between regulations and use of AI in the regulatory identification process.

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[353] The White House, "Agency Checklist: Regulatory Impact Analysis," https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/inforeg/inforeg/regpol/RIA_Checklist.pdf.