PRESIDENT JOE BIDEN

INVESTING IN AMERICA

INVESTING IN AMERICA REPORT:

Today's Investments, Tomorrow's Future

My Fellow Americans,

Four years ago, the pandemic was raging and the economy was reeling. Vice President Harris and I came to office determined to get us through one of the toughest periods in our nation's history by making sure this would be a presidency for all Americans. We made a commitment to write a new economic playbook to grow the economy from the middle-out and bottom-up instead of the top down. Critically important, we made sure the historic laws we signed would make once-in-a-generation investments in all of America. We call it our Investing in America agenda.

Four years later, we are proud to issue this report that captures the Investing in America agenda comprised of some of the most significant investments ever made that will transform our nation for the better for decades to come.

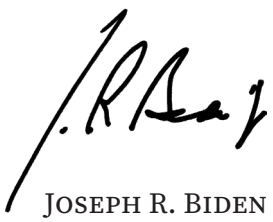
This long-term agenda builds on the foundation laid by the American Rescue Plan, which I signed into law as soon as I came into office to vaccinate the nation and deliver immediate economic relief to Americans who needed it the most. It kept people in their homes, businesses and schools open, and helped cut child poverty in half. It stemmed the tide of the pandemic and economic crises, allowing the economy to land softly without a recession.

Our Investing in America agenda followed with ground-breaking laws that have been long talked about, but that we finally got done. Our Bipartisan Infrastructure Law is already modernizing our roads, bridges, and airports, expanding access to clean water and high-speed Internet, and so much more from 72,000 projects so far with more to come. Our CHIPS and Science Act is making sure our supply chains start in America instead of end in America – by bringing semiconductor manufacturing back to America and attracting billions of dollars in private sector investment. Our Inflation Reduction Act includes the most significant investments in climate and clean energy ever, while also reducing health care and prescription drug costs for millions of seniors.

In total, our Investing in America agenda is creating millions of good-paying jobs – many of them union jobs and jobs that don't require a college degree. These are jobs in new factories with good wages to raise a family on. These are jobs in hometowns so young people don't have to move in search for work. These are investments that are improving the quality of life for all of our communities – cities, suburbs, small towns, rural communities, and across Tribal nations.

These benefits are only the beginning. Today, the first American-made leading-edge chips are being mass produced. By the end of 2026, we are on track to repair over 356,300 miles of highway and over 20,800 bridges. By the end of 2028, we will replace over one million toxic lead pipes, bringing clean drinking water to over 2.5 million people. And by the end of 2030, every household and small business in America will be connected to affordable, reliable, high-speed Internet.

Four years later, we are now better positioned than any nation in the world to win the economic competition of the 21st century. We did it by proving we are the United States of America and there is nothing beyond our capacity when we do it together.



Joseph R. Biden

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Introduction

When President Biden and Vice President Harris came into office, America was in the midst of a deadly pandemic, and our economy was reeling. Millions of Americans remained out of work. COVID-19 continued to shutter businesses, keep children out of classrooms, and kill thousands of Americans every day. President Biden and Vice President Harris were determined not only to address the public health and economic emergencies that faced the country, but also to support a recovery that would reach all communities, setting the stage for a stronger and fairer economy.

The President had an economic vision to rebuild the economy from the middle out and the bottom up. After decades of "trickle-down" economics that never trickled down, his agenda aimed to tackle rising inequality by investing in left-behind communities, addressing mounting costs from climate change, and accelerating the pace of growth to sow the seeds for broad prosperity for all Americans. President Biden and Vice President Harris charted a new path and created a plan to make smart investments in America, empower workers, and promote competition to lower costs and help small businesses.

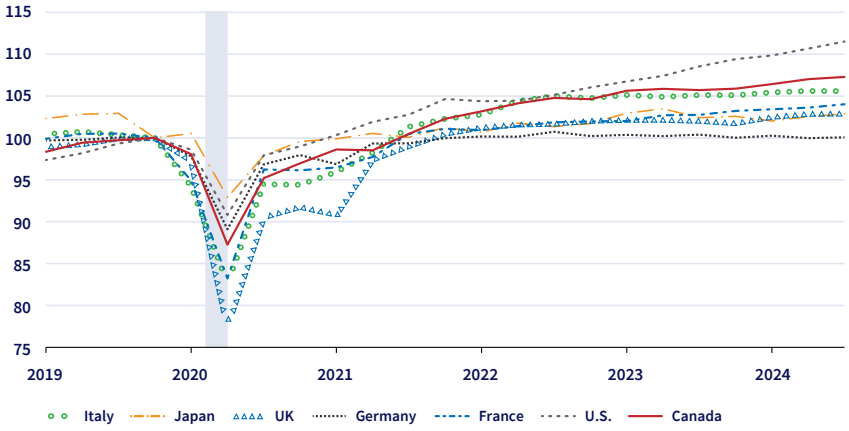
Over the course of four years, the Biden-Harris Administration delivered on this vision and laid a strong foundation for America's renewal.

Within his first two months in office, President Biden signed the American Rescue Plan (ARP) — the most significant economic recovery package in U.S. history — to end the pandemic and revive the economy. The bill contained funding for COVID-19 response, stimulus checks for Americans, and support for small businesses, childcare providers, and retirees. All these measures aimed to get America back on track while avoiding a painful, long-tailed recession like those that accompanied previous recoveries, and it worked. America had the fastest and most broad-based recovery of any nation in the world.

The pandemic also laid bare broader tears in our nation's economic fabric: critical supply chains were too reliant on foreign actors, threatening national security and spurring inflation; economic growth was uneven, clustered in a handful of cities on the coasts that reaped outsized benefits while America's heartland was hollowed out by successive waves of offshoring and plant closures; and we lacked the infrastructure and incentives to win the economic competition of the 21st century. To address these broader challenges, President Biden proposed and passed the Bipartisan Infrastructure Law (BIL), the Inflation Reduction Act (IRA), and the CHIPS and Science Act (CHIPS) — cementing his Investing in America agenda, which marked the most significant investment in America since the New Deal.

The United States of America is the wealthiest country in the world, yet when President Biden took office, public investment in domestic infrastructure as a share of gross domestic product (GDP) had fallen by more than 40 percent since the 1960s,[1] and the World Economic Forum ranked the United States 13th

Real GDP Recovery in the G7 Relative to Pre-Pandemic
Index, 2019: Q4 = 100



Council of Economic Advisers
Sources: Haver; CEA calculations.
Note: Gray bars indicate recessions.
As of December 10, 2024 at 8:30 am.

1 FRED (Federal Reserve Economic Data) Blog, St. Louis Fed, *Government Investment on The Decline,* "U.S. Government Fixed Asset Investments Are Shrinking As a Fraction of GDP". https://fredblog.stlouisfed.org/2021/10/government-investment-on-the-decline/.

in overall infrastructure quality.[2] After decades of disinvestment, crumbling roads and bridges, aging water systems, an unreliable electric grid, and inadequate high-speed Internet imposed real costs on businesses and families. President Biden recognized that for America to compete and grow, it needed to reverse this trend and make meaningful investments in infrastructure. Throughout his first year in office, President Biden worked across the aisle to craft BIL, which has spurred an "Infrastructure Decade" and is delivering the largest investment in American infrastructure since President Eisenhower.

The work of building a better America extended beyond investments in public infrastructure. It included reinvigorating America's private sector to make critical investments in domestic energy and manufacturing. President Biden's IRA made the largest investment in combatting climate change of any law in history — while strengthening energy security, creating good-paying jobs, reducing energy and health care costs for families, and making the tax code fairer. Similarly, CHIPS built on this industrial strategy to further American technological and manufacturing leadership in semiconductors.

President Biden also fought for strong Made in America provisions in these laws, ensuring that federal funds supported the build-out of American industrial capacity and brought back manufacturing jobs after decades of offshoring. As a result, these strategic public investments mobilized an additional $1 trillion in private-sector investments in clean energy and manufacturing in the United States. This government-enabled, private-sector-led approach defied expectations and is attracting private capital to critical sectors. After decades of outsourcing jobs, factories began returning to America, investing and building domestically, and creating good-paying American jobs. These efforts transformed the country for the better — reaching communities in every corner of the United States, including those left behind for decades.

Since the passage of these laws, these investments have helped create over 16 million new jobs. This represents the most job creation in any single presidential term in U.S. history, achieving the lowest average unemployment rate of any administration in the last 50 years, spurring 21 million applications for new businesses, and seeing stock markets hit record highs. To date, agencies have announced $700 billion in federal grants for clean energy, infrastructure, and manufacturing—equivalent to 99 percent of funds available in fiscal year (FY) 2024 or earlier.[3] They have moved quickly to obligate 90 percent of this available funding.[4]

This report provides an overview of the challenges the Biden-Harris Administration set out to solve, the federal investments made, accomplishments to date, and previews what is still to come.

Under President Biden and Vice President Harris' leadership, the Administration achieved more in one term than most presidencies accomplished in two. While the full effects of the President's Investing in America agenda will not be realized for years to come – its impacts on the economy, communities, and American families are here to stay.

2 Klaus Schwab, World Economic Forum, *Global Competitiveness Report 2019*, https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf.

3 For the purposes of this analysis, "announced" means an agency has publicly identified recipients selected for grant awards or released allocations or allotments for formula funding.

4 Per OMB Circular A-11, "obligated" means an agency has entered into a binding agreement that will result in outlays, immediately or in the future. For grant programs, funds are generally obligated when an agency and its grantee sign a grant agreement. For federal spending on construction projects, obligation would occur when a contract is awarded.

Building a Historic Recovery

When President Biden took office, the country was in the midst of the worst pandemic in more than a century and the worst economic crisis since the Great Depression. Millions of Americans remained out of work.[5] COVID-19 continued to shutter businesses, keep children out of classrooms, and kill thousands of Americans every day.[6] President Biden and Vice President Harris were determined to not only address the public health and economic emergencies the country faced, but to build back better by supporting a recovery that reached all communities and set the stage for a stronger and fairer economy well into the future.

Our Approach

President Biden's ARP tackled these issues head-on, changing the country's economic trajectory through targeted relief that met the urgent needs of American communities. The ARP provided historic investments to aid the public health response, spurred vaccination efforts, sped the reopening of schools, restored public safety, and cushioned families from the worst economic impacts of the pandemic. It provided critical relief to more than 15,000 school districts to reopen safely and support academic recovery, and delivered historic investments that helped over 225,000 childcare programs remain open, lowering costs for millions of families. It delivered immediate support to families hard-hit by the pandemic, including a historic expansion of the Child Tax Credit that led to the lowest child poverty rate on record, and helped over 8 million hard-pressed renters stay in their homes, keeping eviction filings below historic averages.

It also empowered communities across the country to make the most critical investments for relief and recovery locally by providing direct fiscal relief to every state, territory, and local government. This funding enabled critical investments in areas like housing, workforce development, public safety, water systems, and high-speed Internet infrastructure.

Our Record

ARP helped lead to the strongest jobs recovery on record - with 16 million jobs created, the most equitable recovery in memory, and a world-leading economic performance that spurred a surge in small business and job growth across the country.[7]

Before the President signed ARP into law, experts at the non-partisan Congressional Budget Office projected that the unemployment rate would remain above 4 percent until the end of 2025. However, after enactment of the ARP, unemployment dropped below 4 percent in just one year and stayed below 4 percent for a record number of months.[8]

ARP helped the U.S. economy outperform pre-pandemic expectations of economic growth, job growth, incomes, and labor force participation — with the economy growing larger than experts had projected it would before the pandemic struck.[9] Under President Biden, the U.S. achieved its lowest average unemployment rate in 50 years, with record-low unemployment rates for Black Americans, Hispanic Americans, veterans, workers without a high school diploma, and workers with disabilities.[10] This historic

5 U.S. Department of Labor, Bureau of Labor Statistics, *Graphics for Economic News Releases*, "Civilian unemployment," last accessed on January 2, 2025, https://www.bls.gov/charts/employment-situation/civilian-unemployment.htm.

6 Centers for Disease Control and Prevention, *COVID Data Tracker*, "Provisional COVID-19 Deaths, by Week, in The United States, Reported to CDC," last accessed on January 2, 2025, https://covid.cdc.gov/covid-data-tracker/#trends_weeklydeaths_select_00.

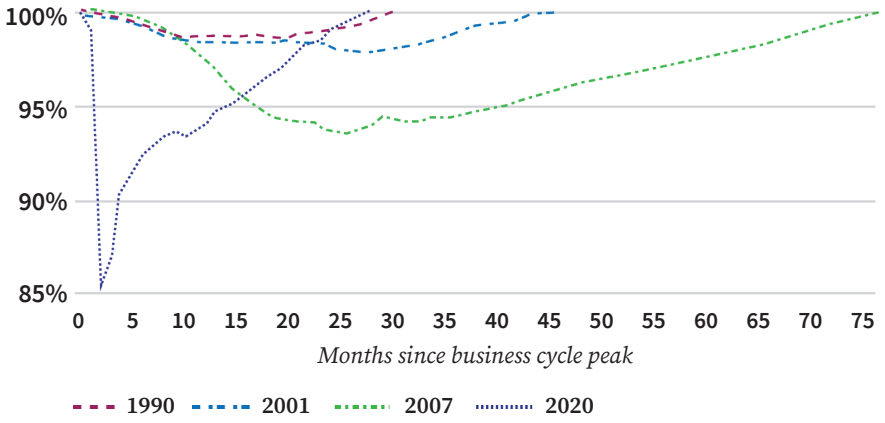
7 U.S. Department of Treasury, *Equitable Recovery in the United States* (October 23, 2023), https://home.treasury.gov/news/featured-stories/equitable-recovery-in-the-united-states; Council of Economic Advisers, *Setting the Record Straight: Benchmarking the Biden Years* (December 11, 2024), https://www.whitehouse.gov/cea/written-materials/2024/12/11/setting-the-record-straight-benchmarking-the-biden-years/.

8 Congressional Budget Office, "Economic Projections" from *The Budget and Economic Outlook: 2021 to 2031* (February 2021), https://www.cbo.gov/publication/51135.

9 Council of Economic Advisers, *GDP Issue Brief* (October 30, 2024), https://www.whitehouse.gov/cea/written-materials/2024/10/30/gdp-issue-brief/.

10 U.S. Bureau of Labor Statistics, *Persons with a Disability: Labor Force Characteristics Summary* (February 22, 2024), https://www.bls.gov/news.release/disabl.nr0.htm; Leo Shane III, *Military*

Jobs relative to business cycle peak, 1990-2022
Nonfarm payroll employment (peak month = 100 percent)



Source: Bureau of Labor Statistics.

job market recovery also brought workers off the sidelines into the labor force: the share of working-age Americans in the workforce reached its highest level in two decades, and the share of working-age women in the workforce hit a record high.[11] Wealth, adjusted for inflation, rose by a record 37 percent for the median American household, with even greater gains for low-income households, Black households, and Hispanic households.[12]

By spurring a rapid economic recovery that was widely shared and avoiding the worst outcomes of past recessions despite the magnitude of pandemic challenges, ARP ensured the Biden-Harris Administration's Investing in America agenda was built upon a strong foundation to foster continuing, durable, and long-term growth across the country.

Times, "Veterans jobless rate drops to lowest average in more than 20 years" (January 5, 2024), https://www.militarytimes.com/education-transition/2024/01/05/veterans-jobless-rate-drops-to-lowest-average-in-more-than-20-years/; Council of Economic Advisers, *Recent Labor Market Conditions for Black Workers* (May 16, 2024), https://www.whitehouse.gov/cea/written-materials/2024/05/16/recent-labor-market-conditions-for-black-workers/; Joelle Gamble, U.S. Department of Labor, *September Jobs Report: Hispanic Unemployment Reaches Record Low* (October 14, 2022), https://blog.dol.gov/2022/10/14/september-jobs-report-hispanic-unemployment-reaches-record-low; U.S. Bureau of Labor Statistics, "Unemployment Rate - Less Than a High School Diploma, 25 Yrs. & over [LNS14027659]", retrieved from FRED, Federal Reserve Bank of St. Louis, last accessed on January 2, 2025, https://fred.stlouisfed.org/series/LNS14027659.

11 Council of Economic Advisers, *When the Men Buck the Trend: Recent Advances in Men's LFPR* (August 2, 2024), https://www.whitehouse.gov/cea/written-materials/2024/08/02/when-the-men-buck-the-trend-recent-advances-in-mens-lfpr/; Deepika Baskar Prabhakar and Robert G. Valletta, Federal Reserve Bank of San Francisco, *FRBSF Economic Letter 2024-03: Why Is Prime-Age Labor Force Participation So High?* (February 5, 2024), https://www.frbsf.org/research-and-insights/publications/economic-letter/2024/02/why-is-prime-age-labor-force-participation-so-high/.

12 Aladangady, Aditya, Jesse Bricker, Andrew C. Chang, Sarena Goodman, Jacob Krimmel, Kevin B. Moore, Sarah Reber, Alice Henriques Volz, and Richard A. Windle (2023). *Changes in U.S. Family Finances from 2019 to 2022: Evidence from the Survey of Consumer Finances*. Washington: Board of Governors of the Federal Reserve System, October, https://doi.org/10.17016/8799.

Infrastructure Decade

When President Biden took office, decades of underinvestment and inaction had left the nation's roads, bridges, rail, and transit systems in poor condition, with a trillion-dollar backlog of needed repairs. In short, the U.S. lacked the infrastructure to win the economic competition of the 21st century.

In 2021, one in five miles, or 173,000 total miles, of highways and major roads were in poor condition, as were over 46,000 bridges.[13] Delays caused by traffic congestion alone cost over $160 billion per year, forcing motorists to pay more than $1,000 annually on average in wasted time and fuel.[14] That same year, more than 43,000 people died in traffic crashes on U.S. roads — double the rate in Canada and quadruple that in Europe.[15]

The nation's public transit system also faced significant investment needs – with a multibillion-dollar repair backlog that resulted in delays and disruptions, disproportionately impacting households of color.[16] Passenger rail systems had fallen behind the rest of the world, with major infrastructure over a century old supporting nearly a million passengers daily on the Northeast Corridor alone.[17] Although the United States had pioneered modern aviation, its airports lagged far behind global competitors.[18] The pandemic further exposed vulnerabilities in supply chains, underscoring the importance of modernizing ports, waterways, and other freight infrastructure.

President Biden recognized that simply building back to the way things were before would not be enough. Any major investment needed to address the realities of the climate crisis and the injustices embedded in past infrastructure decisions. The transportation sector has been the largest source of U.S. greenhouse gas (GHG) emissions in recent years, while also producing local air pollution with significant negative impacts on public health for communities near transportation corridors.[19] It is also particularly vulnerable to the effects of climate change, from mudslides washing out roads to coastal flooding inundating subways. And, too often, past transportation investments divided communities, excluded those most in need of affordable options, and worsened air pollution in neighborhoods already struggling — burdens that were often felt most acutely by communities of color.[20]

A major investment in transportation infrastructure presented an opportunity to address these challenges: to rebuild crumbling infrastructure, modernize transit and rail, improve global competitiveness, strengthen supply chains, enhance sustainability and resilience, and expand opportunity — all while creating good-paying and union jobs in manufacturing and construction.

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13 "Roads," 2021 Report Card for America's Infrastructure, ASCE, accessed January 3, 2025, https://infrastructurereportcard.org/. "Bridges," 2021 Report Card for America's Infrastructure, ASCE, accessed January 3, 2025, https://infrastructurereportcard.org/.

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15 "Newly Released Estimates Show Traffic Fatalities Reached a 16-Year High in 2021,", NHTSA, May 17, 2022, https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities.

16 "Transit," 2021 Report Card for America's Infrastructure, ASCE, accessed January 3, 2025, https://infrastructurereportcard.org/.

17 "Connect 2035,", Northeast Corridor Commission, July 2021, https://nec-commission.com/app/uploads/2021/08/CONNECT-NEC-2035-Plan.pdf.

18 "World Airport Awards: Only one U.S. airport made this year's top 25," USA Today, August 9, 2021, https://www.usatoday.com/picture-gallery/travel/2021/08/09/world-best-airport-awards-qatar-hamad-international-singapore-changi-skytrax-photos/5535862001/.

19 "The U.S. National Blueprint for Transportation Decarbonization," U.S. Department of Energy, accessed January 2, 2025, https://www.energy.gov/sites/default/files/2023-01/the-us-national-blueprint-for-transportation-decarbonization.pdf.

20 "A Brief History of How Racism Shaped Interstate Highways," NPR, April 7, 2021, https://www.npr.org/2021/04/07/984784455/a-brief-history-of-how-racism-shaped-interstate-highways.

Our Approach

President Biden's Bipartisan Infrastructure Law (BIL) was the largest investment in transportation infrastructure since President Eisenhower built the interstate highway system more than 60 years earlier. BIL made historic investments across all modes of transportation to address significant backlog needs while building for the future to provide Americans with safe, affordable, reliable, and sustainable transportation options. It achieved this through a combination of formula funding distributed to the states and competitive discretionary grants available to various levels of government. The Administration focused on funding a portfolio of investments that included transformational megaprojects as well as a broader set of "backyard" projects in thousands of communities across the country.

Roads, Bridges, and Major Projects: BIL included more than $350 billion in funding for roads and bridges, representing the single largest dedicated investment in bridges since the interstate highway system was built. When he proposed his infrastructure bill, President Biden set a goal to fix 10 of the most economically significant bridges in the nation and repair 10,000 smaller bridges, including those that provide critical connections in rural and Tribal communities. This commitment was met through the $27.5 billion Bridge Formula Program, which allocated funds to states and included incentives to invest in smaller "off-system" bridges, and the $12.5 billion Bridge Investment Program, which funded large and medium-sized bridge projects through competitive grants. Major road and bridge projects were also funded through the INFRA, Mega, and Rural grant programs, which support large, complex projects of national and regional significance.

Reconnecting Communities: President Biden witnessed firsthand how legacy disinvestment, historic redlining, and past infrastructure investments often harmed communities, and he was determined to reverse this trend. In the 1960s and 1970s, the expansion of the interstate highways system cut through predominantly Black and brown neighborhoods, dividing communities and physically cutting people off from opportunity. Through BIL and the IRA, President Biden secured a combined $4 billion to reconnect and revitalize communities that have been overburdened and overlooked.

Funding from the Reconnecting Communities Pilot Program and the Neighborhood Equity and Access Program addresses harms from past investments and sets out to strengthen communities by covering highways with public spaces, creating new transit routes, adding sidewalks, bridges, bike lanes, and more. These fixes are not just cosmetic; they will increase access to health care, schools, jobs, places of worship, and other essential services and opportunities for communities across the nation.

Safety: BIL invested nearly $38 billion to improve the safety of the United States transportation system in order to reduce the number of fatalities and serious injuries on our nation's roadways. BIL supported a broad array of transportation safety priorities, including the safety of drivers and vulnerable road users, safety at railroad crossings, and replacement or repair of obsolete natural gas pipelines. BIL increased the amount of safety funding available through existing programs and created new programs, such as the Safe Streets and Roads for All (SS4A) Grants Program, which provided $5 billion to help regional, Tribal, and local governments develop and implement plans to save lives and reduce serious injuries and fatalities on our roadways.

Public Transit and School Buses: BIL invested more than $90 billion to repair and modernize transit, improving sustainable, accessible, affordable, and reliable transportation options for millions of Americans – the largest investment ever in public transit. Just like our approach in other areas, the Administration used this opportunity to expand public transit to new communities and repair and replace older transit infrastructure with more equitable infrastructure and cleaner, more energy-efficient transportation.

The Administration invested in expanding access to public transit to new communities across the country, reducing commute times and decreasing congestion. This included new light rail, heavy rail, and bus rapid transit projects through the Capital Investment Grant program funded through BIL. For existing public transit, BIL funded improvements to transit accessibility for the elderly and people with disabilities through additional funding in existing programs and

the new All Stations Accessibility Program, focused on modernizing older transit stations to meet Americans with Disabilities Act (ADA) standards.

And, for adults and kids riding buses, BIL provided nearly $10.8 billion to the Federal Transit Administration to replace thousands of deficient transit vehicles and $5 billion for a Clean School Bus program to improve sustainability and support American manufacturing by replacing old school buses with clean, low- and zero-emission vehicles made in America.

Rail: After commuting on Amtrak between Washington, DC and Wilmington, Delaware, for decades, President Biden came to office with a clear vision for world-class passenger rail in the United States. He secured the funding for this vision in BIL, which included the largest investment in passenger rail since Amtrak was created – a total of $66 billion to modernize and expand passenger rail and improve freight rail efficiency and safety.

BIL provided funding to modernize the Northeast Corridor, bring world-class rail service to areas outside the northeast and mid-Atlantic, refurbish Amtrak's fleet and facilities, improve freight and passenger rail safety, and address dangerous highway-rail intersections. For the Northeast Corridor, the most heavily traveled rail corridor in the United States, BIL will rebuild tunnels and bridges that are over 100 years old, upgrade tracks, power systems, signals, stations, and other infrastructure, and advance future projects to significantly improve travel times by increasing operating speeds and reducing delays. Combined with Amtrak's fleet replacement program, which will replace over 1,000 locomotives and coaches with state-of-the-art and Made-in-America equipment, these investments ensured that train service is more convenient and climate-friendly than either driving or flying and will create more than 100,000 good-paying jobs in construction. Outside the Northeast Corridor, BIL investment will enable the U.S. to have its first high-speed rail lines, unlock faster and more reliable service along existing routes, and build a pipeline for future growth.

Airports: BIL invested $25 billion to modernize terminals, improve safety, and upgrade outdated air traffic control infrastructure. This included $15 billion for the Airport Infrastructure Grant program for airports to address a variety of infrastructure maintenance and improvement needs from runways and taxiways, to noise reduction, to multimodal and terminal building improvements; $5 billion for the new Airport Terminals Program, which provided funding to modernize airport terminals, including terminal expansion projects, energy efficiency and upgrades to meet requirements under the ADA, multimodal projects, and more; and $5 billion in the Facilities and Equipment program, which provided funding for upgrades to Federal Aviation Administration (FAA)-owned airport traffic control towers to improve safety, security, and environmental standards for the National Air System.

Ports and Waterways: The pandemic opened the eyes of many Americans to the importance of our port system. BIL helped protect against future supply chain challenges by investing $17 billion to improve infrastructure at coastal ports, inland ports and waterways, and land ports of entry along our borders, which are all critical to facilitating the smooth movement of freight, from agricultural commodities to household goods, but in need of modernization. This included $2.25 billion for the Port Infrastructure Development Program to improve the safety, efficiency, or reliability of the movement of goods into, out of, around, or within a port; $11 billion for construction projects to support coastal ports, inland waterways, and other water infrastructure; and $4 billion to modernize and improve land ports of entry at our northern and southwest borders, tackling a decades-long backlog of facility needs. This funding under BIL was complemented by funding in the IRA, including nearly $3.4 billion to upgrade federal property, including land ports of entry with low-carbon materials and other sustainability features, and $3 billion through the Clean Ports Program to fund zero-emissions port equipment and infrastructure, helping address critical air quality and environmental justice concerns in our nation's port communities while upgrading ports to compete for commerce.

Infrastructure Needs, Progress, and Projections

In 2021, the U.S. had 46,000 structurally deficient bridges (7.5 percent of the nation's bridges) and over 40 percent of our roadways were in poor or mediocre condition.

- Since President Biden took office, improvements have started on over 207,000 miles of roads, and over 12,300 bridge repair projects are underway.
- By the end of 2026, we can expect to have launched repairs on over 356,000 miles of highway and have launched over 20,800 bridge repair projects.

As of 2021, U.S. transit systems faced a multibillion-dollar repair backlog.

- The Biden-Harris Administration awarded nearly $55 billion in transit funding and $3 billion in funding for clean school buses, which will deploy 4,600 American-made transit buses and over 8,900 clean school buses in 1,300 communities.
- By the end of 2026, we can expect to have funded over 7,600 clean transit buses.

U.S. passenger rail lags behind the rest of the world in reliability, speed, and coverage.

- The Biden-Harris Administration awarded over $44 billion in funding across more than 445 rail projects and awards, including $17.9 billion in funding for 44 projects across the Northeast Corridor, the nation's busiest passenger rail corridor
- Delays along the Northeast Corridor are estimated to result in almost 245,000 train delay minutes annually.
- By the end of 2026, BIL funding will support replacing infrastructure that could result in almost 110,000 delay minutes saved annually along the Northeast Corridor.

In 2021, no U.S. airport ranked in the top 25 worldwide.[1]

- The Biden-Harris Administration awarded over $11.5 billion for airports, including funding for over 400 airport terminal projects to modernize and expand terminals – over 200 of which are under construction or complete.
- By the end of 2026, we can expect to have funded over 660 airport terminal projects total.

Our nation's ports and waterways are in need of repair and modernization, as became evident during the pandemic.

- The Biden-Harris Administration awarded more than $12 billion in funding for over 1,060 port and waterway projects, including $3 billion for over 50 projects that will fund clean, zero-emission freight and ferry technologies, eliminating more than 3 million metric tons of carbon pollution.
- By the end of 2026, we can expect to have funded over 1,120 port and waterway projects total.

1 *World's Top 100 Airports 2021 | SKYTRAX*. (2023, March 10). SKYTRAX. https://www.worldairportawards.com/worlds-top-100-airports-2021/.

Our Record

The Administration awarded over $415 billion in transportation funding, including more than 29,000 projects and awards. This included megaprojects politicians had been promising to fix for decades, like the Brent Spence Bridge and the Hudson River Tunnel. It also included thousands of smaller projects to build safe routes to schools, upgrade transit stations, or repair airport runways. Thousands of projects are already completed, and thousands more are underway. Together, these investments are creating good-paying and union jobs in manufacturing and construction.

18 of the Most Economically Significant Bridges funded by the Biden-Harris Administration.

Roads, Bridges, and Major Projects: The Administration awarded nearly $253 billion in funding to improve roads and bridges. Since President Biden took office, improvements have started on over 207,000 miles of roads, and over 12,300 bridge repair projects – making our roadways safer and reconnecting communities across the country. This includes some of the most economically significant bridges in the country, like the Blatnik Bridge between Wisconsin and Minnesota and the I-55 America's River Crossing between Tennessee and Arkansas. In fact, thanks to BIL, the Biden-Harris Administration has awarded funding to fix 18 of the country's most economically significant bridges, nearly doubling President Biden's goal of 10. BIL also funded thousands of smaller bridge projects, many of which have already been completed, like the Second Avenue Bridge in Detroit and the Montgomery Avenue Bridge in Philadelphia.

Reconnecting Communities: The Administration awarded $4 billion in BIL and IRA funds for projects to reconnect and rebuild communities across the country. These projects will increase access to health care, schools, jobs, places of worship, and other essential services and opportunities, and strengthen communities by covering highways with public spaces, creating new transit routes, adding sidewalks, bridges, bike lanes, and more. This included projects like the Atlanta Stitch, which received $158 million to reconnect midtown to downtown Atlanta. When

Project Spotlight: Replacing the Brent Spence Bridge ($1.64 billion)

The rehabilitation of the Brent Spence Bridge between Kentucky and Ohio has been decades in the making – the passage is currently the second worst truck bottleneck in the nation and carries more than 24,000 trucks and 160,000 vehicles per day, or $400 billion in freight per year over the Ohio River.

The project will separate I-75 traffic from local traffic, making commutes quicker and improving freight passage along this critical corridor. Improvements will address congestion and safety for communities in Kentucky and Ohio and address delays in the movement of freight from Miami, Florida to Canada that raise costs for American families.

This project is an example of the bipartisan support for President Biden's Investing in America agenda – in January 2023 Senator Mitch McConnell joined President Biden to announce funding for this project.

Construction is expected to be complete in 2032.

Spotlight: Philadelphia Chinatown Stitch Project ($159M)

With funds from BIL's Reconnecting Communities Program, this project will construct a cap over the Vine Street Expressway in Chinatown, which has been home to a Chinese-American immigrant community since the mid-1800s. The Expressway was constructed in the late 1980s and 1990s, demolishing significant portions of the neighborhood and displacing residents and businesses. The Chinatown Stitch project will cover about two and a half blocks of Expressway, creating new public green space, improving neighborhood connections, and creating equitable mixed-use development opportunities and inclusive mobility options.

constructed, I-75 and I-85 – now called the Downtown Connector – sliced through Sweet Auburn, cutting it off from Downtown and displacing hundreds of homes and businesses in the working-class neighborhoods. The project will create a 14-acre mixed-use development cap on three-quarters of the Downtown Connector – increasing access to jobs, housing, education, and health care, and creating public parks, plazas, and surface streets for walking and biking.

Safety: The Administration awarded over $23 billion in funding for safety, providing meaningful investment to complement its National Roadway Safety Strategy. This included $2.9 billion in funding from the SS4A program provided to over 1,600 communities in all 50 states and Puerto Rico. These awards improved roadway safety planning for about 75 percent of the nation's population. The Department of Transportation (DOT) also awarded nearly $1.7 billion to address over 520 at-grade rail crossings across the country.

We have already seen the results of these actions. After a peak during the pandemic - traffic fatalities decreased for nine straight quarters.[21]

The Administration also awarded a total of nearly $800 million to repair and replace over 1,000 miles of aging natural gas pipelines across 227 projects in 29 states. These projects are expected to reduce methane emissions by 1,000 metric tons annually, the equivalent of taking nearly 6,500 cars off the road.

Transit and School Buses: The Administration awarded nearly $55 billion in transit funding, supporting upgrades to existing infrastructure, replacement buses and railcars, and new routes across the country. To date, over 4,600 American-made transit buses and over 700 railcars have been deployed nationwide. Through the additional BIL funding for the Capital Investment Grant program, the Administration advanced long-awaited capital projects – like the Mill Plains Bus Rapid Transit (BRT) in Vancouver, Washington, which opened in 2024 and now provides fast, reliable transit service; and the Phoenix Northwest Light Rail Extension, which was completed in 2024 and is expected to transport nearly two million Phoenix residents each year to new stations and employ transit-oriented development to create new housing and retail along this route.

21 "NHTSA Estimates Traffic Fatalities declined 4.4% in the First Nine Months of 2024," NHTSA, December 20, 2024, https://www.nhtsa.gov/press-releases/nhtsa-estimates-traffic-fatalities-declined-44-first-nine-months-2024#:~:text=NHTSA%20Estimates%20Traffic%20Fatalities%20Declined,First%20Nine%20Months%20of%202024&text=The%20National%20Highway%20Traffic%20Safety,for%20the%2010th%20straight%20quarter.

The Environmental Protection Agency's (EPA's) Clean School Bus program awarded nearly $3 billion for over 8,900 clean school buses in 1,300 communities across the country, prioritizing disadvantaged school districts. To ensure these buses could hit the road quickly, the Administration worked with school districts to provide support in deploying electric bus charging infrastructure, ensured coordination between districts and their power utilities, and supported the expansion of domestic clean school bus manufacturing. For example, bus manufacturer Blue Bird invested to expand its facility in Fort Valley, Georgia, and the facility's 1,500 workers unionized, finalizing their first union contract in May 2024.

Project Spotlight: Building Brightline West ($3 billion)

The Brightline West High-Speed Intercity Passenger Rail System Project will build a new 218-mile intercity passenger rail system between Las Vegas, Nevada, and Rancho Cucamonga, California. The project will create a new high-speed rail system, resulting in trip times of just over 2 hours – nearly twice as fast as driving. This route is expected to serve more than 11 million passengers annually, taking millions of cars off the road. And, due to all-electric train sets, this project is estimated to remove 400,000 tons of carbon dioxide per year.

This project will create 35,000 union jobs supporting construction and 1,000 permanent union jobs in operations and maintenance once in service.

Brightline West broke ground in April 2024 and is expected to begin service in 2028 – in time for the Los Angeles 2028 Olympics.

Rail: The Administration awarded nearly $44 billion in rail funding. This included $17.9 billion in funding for 44 projects across the Northeast Corridor. Each new project along the Northeast Corridor will improve travel times by addressing the delays associated with speed restrictions and the constant maintenance and repair of old infrastructure. These delays were estimated to result in almost 245,000 minutes of train delays annually, the funding awarded by this Administration will replace infrastructure that could save 110,000 delay minutes annually. For example, thanks to $4.7 billion in BIL funding, early work is underway to replace the 150-year-old Baltimore and Potomac Tunnel, which is the largest Northeast Corridor bottleneck between Washington and New Jersey and a single point of failure for the nine million Amtrak and Maryland Area Commuter passengers who rely on it annually.

In addition, the Administration awarded $8.2 billion in funding for projects outside the Northeast Corridor, including high-speed rail projects in California and Nevada. The Administration also provided seed funding to advance promising future rail routes, including the Colorado Front Range, Northern Lights Express, and Scranton to New York corridor.

Airports: The Administration awarded over $15 billion in funding for airports, delivering funding for over 400 airport terminal projects to modernize and expand terminals – over 200 of which were under construction or completed. This included projects like the Phoenix-Mesa Gateway Airport Terminal Modernization project, where a new concourse was built with five new gates and an upgraded waiting area was completed in 2024, and the San Diego International Airport Project, where construction is underway to build a new terminal with the addition of 30 gates, a five-story parking plaza, and roadway improvements. The FAA also provided funding for over 2,000 airport infrastructure projects, nearly 190 of which are completed. This included over 950 pavement projects, over 100 of which are completed. And, thanks to BIL, the Administration also completed over 1,600 projects to upgrade and replace air traffic control towers to ensure the safe operation of the National Air Space.

Ports and Waterways: The Administration awarded over $12 billion in funding for ports and waterways to expand capacity, modernize infrastructure, and

Project Spotlight: Upgrading Montgomery Locks and Dam ($1B)

The Montgomery Locks and Dam are critical to national supply chains, enabling the transport of 12 million tons of cargo on barges into and out of the Port of Pittsburgh annually. But after nearly a century in service, the locks are at increased risk of failure, which would effectively close the Port of Pittsburgh.

This is the largest BIL-funded infrastructure project in Pennsylvania, and will directly and indirectly support 13,400 union jobs during construction.

The U.S. Army Corps of Engineers (USACE) has awarded the main construction contract, which is expected to take eight years to complete.

improve air quality for surrounding communities. DOT, EPA, and the USACE together funded over 1,060 port and waterway projects to strengthen supply chain reliability, speed up the movement of goods, reduce costs, and reduce GHG emissions. This includes nearly $3 billion awarded to over 50 projects that will reduce emissions at ports by over 3 million metric tons – equivalent to the energy use of over 390,000 homes. Major projects are already under construction, including at Montgomery Locks and Dam in Pennsylvania and Soo Locks in Michigan, which received a combined $1.65 billion to modernize and expand aging locks on key rivers that were linchpins of national supply chains, keeping critical goods flowing and lowering costs for families. USACE also invested $142 million to make Virginia's Port of Norfolk the deepest port on the East Coast, allowing enhanced navigation for larger commercial vessels. Projects at land ports of entry along the border are also underway, such as the expansion of the Douglas Land Port of Entry in Arizona, which was awarded a design-build contract in fall 2024.

Looking Forward

BIL provides five years of funding between FYs 2022 and 2026. In just three years since its enactment, these programs and projects have begun delivering real benefits for people across the country, reversing decades of underinvestment – all while creating good-paying jobs, growing the economy, strengthening supply chains, improving mobility, enhancing resilience, and making our transportation systems safer. Under the Biden-Harris Administration, we announced over $415 billion in BIL and IRA funding across all modes of transportation. Grant recipients will continue to break ground and cut ribbons on thousands of transportation projects over the coming years thanks to this funding. Also, about $253 billion in formula and discretionary funding will be awarded by DOT in future years, providing certainty to states and transit agencies as they plan future projects.

As the President has said, the impacts of this historic agenda will be felt over the next decade. If future administrations continue to implement at the pace we have, people across the country will enjoy the benefits of safer roads, bridges and railways, and smoother commutes to connect people to the resources, opportunities, and jobs that are going to shape their lives. For example, by the end of FY 2026, the work started by this Administration is expected to:

- Launch repairs on a total of over 356,000 miles of highway, resulting in smoother, safer commutes for millions of Americans.
- Launch 20,800 bridge repair projects, resulting in fewer bridge closures and weight restrictions, and less congestion for commuters.
- Complete over 2,600 air traffic control tower projects to continue to ensure the safety of air travel in the country.

In addition, we anticipate a number of major projects funded under the Biden-Harris Administration to

be completed in the coming years, including many long-promised projects that are finally becoming a reality.

2027-2030

- LA Metro Westside Purple Line Extension, California
- Brightline West High-Speed Rail, Nevada and California
- Penn Station Access, New York
- Hartsfield-Jackson Atlanta International Airport, Georgia
- Reconnecting Communities Projects in Buffalo and Syracuse, New York, Detroit, Michigan, and Atlanta, Georgia
- Montgomery Locks and Dam, Pennsylvania
- Transforming Rail in Virginia Phase 2, Virginia
- Chicago Red Line Extension, Illinois

2031-2034

- I-10 Calcasieu River Bridge, Louisiana
- Blatnik Bridge, Minnesota and Wisconsin
- Philadelphia Chinatown Stitch, Pennsylvania
- Brent Spence Bridge, Kentucky and Ohio
- I-5 Interstate Bridge Replacement, Washington and Oregon
- San Francisco Transbay Downtown Rail Extension, California
- Sagamore Bridge, Massachusetts

2035-Beyond

- Frederick Douglass Tunnel, Maryland
- Susquehanna River Rail Bridge Replacement, Maryland
- Gateway Hudson River Tunnel, New York and New Jersey

Delivering Clean Water to All Americans

President Biden and Vice President Harris believe that clean and safe water should be a right for every American. When President Biden took office, the nation had underinvested in water infrastructure for too long, and faced an urgent need to both modernize and expand its water systems. Many wastewater and drinking water mains and pipes in the U.S. were nearing the end of their useful lives and were at increased risk of failure.[22] Almost 20 percent of treated potable water was lost through leaky pipes across the country.[23] At the same time, over two million people in America were living without running water, and tens of millions more lacked access to safe drinking water and sanitation, including half of Tribal households. Due to decades of inequitable infrastructure development, lack of access to clean water disproportionately affected low-income and disadvantaged communities.[24]

In addition, two major sources of contamination in water threatened public health: toxic lead service lines and perfluoroalkyl and polyfluoroalkyl substances, known as PFAS or "forever chemicals." As a senator in 1986, President Biden voted to ban the installation of new lead pipes, but 35 years later, no administration had set out to fully replace the lead pipes that were already in the ground – President Biden changed that.

At the beginning of the Administration, over nine million lead pipes delivered water to homes, daycares, and businesses nationwide.[25] Lead poisoning causes serious health effects, especially for children. It can damage the kidneys, cause cardiovascular disease, and result in irreversible damage to cognitive development, slowing learning.[26] Lead exposure also impacts pregnancies, increasing the risk of low birthweights or even miscarriage.[27] Scientists have determined that no level of lead exposure is safe.[28]

Similarly, since PFAS was discovered in the 1930s and became ubiquitous in consumer products in the 1950s, it has contaminated water sources across the country.[29] We now know that PFAS is linked to a range of severe health problems, including deadly cancers, liver and heart damage, and developmental impacts in children.[30]

President Biden and Vice President Harris set out on a simple mission to deliver clean water to everyone – regardless of zip code. This effort aimed to reduce illness, enable economic development, give children a safe environment to learn, and create good-paying and union jobs for years to come.

Our Approach

To address the nation's water needs, President Biden secured approximately $55 billion through BIL to upgrade water infrastructure – the largest clean water investment in American history. This funding built on flexible support provided in ARP, which states and localities leveraged to invest over $20 billion in water infrastructure projects in all 50 states. These historic resources were paired with bold regulatory action to tackle harmful contaminants like PFAS and set the path to finally remove lead from drinking water.

22 "Water Efficiency for Water Suppliers", Environmental Protection Agency, September 2021, https://www.epa.gov/sustainable-water-infrastructure/water-efficiency-water-suppliers.

23 "America's Infrastructure Report Card 2021", American Society of Civil Engineers, 2021, infrastructurereportcard.org.

24 "Environmental and Climate Justice Issue Brief: Clean Water", NAACP, https://naacp.org/resources/environmental-climate-justice-issue-brief-clean-water.

25 "7th Drinking Water Infrastructure Needs Survey and Assessment", Environmental Protection Agency, September 2023, https://www.epa.gov/dwsrf/epas-7th-drinking-water-infrastructure-needs-survey-and-assessment.

26 "Lead Exposure Symptoms and Complications", Centers for Disease Control and Prevention (CDC), April 10, 2024, https://www.cdc.gov/lead-prevention/symptoms-complications/index.html.

27 Ibid.

28 Ibid.

29 "Tap water study detects PFAS 'forever chemicals' across the US", U.S. Geological Survey, July 5, 2023, https://www.usgs.gov/news/national-news-release/tap-water-study-detects-pfas-forever-chemicals-across-us.

30 "How PFAS Impacts Your Health", CDC, November 2024, www.atsdr.cdc.gov/pfas/about/health-effects.html.

EPA State Revolving Funds

The majority of the BIL clean water investment – over $43 billion – is delivered through EPA's State Revolving Funds (SRFs). The SRF programs provide grants to capitalize state-level revolving loan funds in every state and territory, and the states in turn provide no- or low-interest loans or grants to local water systems for infrastructure projects. To ensure that funding can reach the places with the greatest need, BIL requires that 49 percent of SRF funding be provided to disadvantaged communities as grants or forgivable loans. BIL provides funding across five SRF programs.

State Revolving Fund Program	BIL Funding
Drinking Water SRF General Supplemental	$11.7 billion
Drinking Water SRF Lead Service Line Replacement	$15 billion
Drinking Water SRF Emerging Contaminants	$4 billion
Clean Water (wastewater/stormwater) SRF General Supplemental	$11.7 billion
Clean Water (wastewater/stormwater) SRF Emerging Contaminants	$1 billion
Total	**$43.4 billion**

The Biden-Harris Administration's clean water investments were designed to address the key challenges facing the water sector by upgrading and expanding both drinking water and wastewater infrastructure and mitigating key contaminants such as lead and PFAS. The Administration also targeted investments in Tribal, rural, and other disadvantaged communities, which disproportionately lacked access to clean water. In addition to building critical water infrastructure, these investments are creating thousands of good-paying and union jobs in communities all across the country.

Drinking Water: BIL invested $11.7 billion over five years for a wide range of drinking water infrastructure projects through the Drinking Water State Revolving Fund General Supplemental program. This funding supports projects such as drinking water main repairs, drinking water treatment plant upgrades, groundwater well improvements, and lead service line replacements.

Lead Pipe Replacement: BIL invested $15 billion over five years in dedicated funding for lead pipe removal through the Lead Service Line Replacement State Revolving Fund. This program helps communities identify and replace lead service lines that carry drinking water from the water main into a home or building. In addition to this dedicated source of funding, a range of other federal funding sources can also support lead pipe replacement, including ARP's State and Local Fiscal Recovery Fund, the Drinking Water State Revolving Fund General Supplemental program, EPA's Water Infrastructure Finance and Innovation Act loan program, and the Department of Housing and Urban Development's (HUD's) Community Development Block Grants program.

Wastewater and Sanitation: BIL invested $11.7 billion over five years through the Clean Water State Revolving Fund General Supplemental program, which finances wastewater and stormwater projects including wastewater treatment plant upgrades, sanitation systems, stormwater management systems, wastewater reclamation, and certain aquatic ecosystem projects.

PFAS and Emerging Contaminants: BIL invested $10 billion over five years to tackle emerging contaminants in water, particularly PFAS. Of this total, $4 billion was provided through the Drinking Water State Revolving Fund Emerging Contaminants fund, and $1 billion was dedicated to addressing PFAS in wastewater through the Clean Water State Revolving Fund Emerging Contaminants program. Unlike the other state revolving Funds, 100 percent of this funding is required to be awarded as grants or forgivable loans, ensuring that communities in need can access these benefits without having to take on debt. The remaining $5 billion in funding flows through the Emerging Contaminants in Small or Disadvantaged Communities Grant program, which provides funding for states to distribute as grants to communities most in need.

Tribal Clean Water: BIL and IRA made historic investments in expanding clean water access on Tribal lands and honoring Tribal water sovereignty. BIL invested $3.5 billion over five years through the Indian Health Service's Sanitation Facilities Construction program to provide clean drinking water and wastewater systems in Tribal communities. These projects are being delivered in partnership with Tribal governments. In addition, BIL provided $2.5 billion through the Indian Water Rights Settlements program at the Department of the Interior (DOI) to provide funding to Tribes for historic water rights settlements.

The IRA provided $550 million to DOI's Bureau of Reclamation (BOR) for domestic water supply projects in historically disadvantaged communities. These funds covered up to 100 percent of the cost for planning, design, and construction of domestic water supply projects to support disadvantaged communities or households lacking access to reliable domestic water supplies. BOR conducted significant outreach to Tribes in the 17 western states to ensure those who were eligible had access to this funding opportunity.

Rural Water: Too often, communities in rural America rely on aging or inadequate water infrastructure. In addition to the general-purpose drinking water and wastewater investments that could fund projects in rural communities, BIL invested $1 billion in dedicated funding for rural water through the Rural Water Projects program. This program supports a set of major long-distance water pipeline projects to deliver clean water to rural communities.

Our Record

The Biden-Harris Administration moved swiftly to deploy these water investments to deliver clean water and create good-paying and union jobs. The Administration awarded $40.3 billion in BIL clean water funding – nearly all of the funding available through fiscal year 2025. This funding launched over 2,400 projects nationwide that are bringing safe, clean water to Americans.

Drinking Water: To help secure clean drinking water for Americans, the Administration has awarded $9.1 billion through the Drinking Water State Revolving Fund General Supplemental program, with nearly half going to disadvantaged communities as grants or forgivable loans. This funding is now being distributed by states for projects such as replacing old water mains, upgrading water treatment systems, and improving drinking water wells. One community benefitting from this funding is Ridgway, Colorado, where over 50,000 people rely on a single water treatment plant that is vulnerable to failure, putting their drinking water supply at risk. Through a $50 million investment from BIL, the community is working to build an additional treatment plant that will extend service to additional communities, helping to ensure safe drinking water for the region. The project is expected to be completed by 2027.

Lead Pipe Replacement: President Biden committed to replacing every lead pipe within a decade and the Administration put the country on track to meet this goal. The Administration awarded $9 billion in BIL funding nationwide for lead pipe replacement, nearly half of which is flowing to disadvantaged communities as grants or forgivable loans. Under this Administration, nearly half a million lead pipes were replaced, benefitting over 1.2 million people.

In October 2024, the President announced the Lead and Copper Rule Improvements - the first-ever rule requiring the replacement of every remaining lead pipe in the nation - to complement the historic levels of funding delivered by the Administration and require water systems to replace lead pipes within 10 years.[31] Each year, this rule is expected to prevent up to 900,000 infants from being born with low birth weight, stop up to 200,000 IQ points lost in children, and reduce up to 1,500 cases of premature death from heart disease.

Thanks to the investments and actions taken by the Biden-Harris Administration, water systems across the country accelerated their lead pipe replacement efforts. Cities like Milwaukee, Detroit, Denver, and St. Paul put federal funding to work and are now on track to replace all lead pipes within 10 years. Some cities plan to finish even sooner – Pittsburgh, Pennsylvania leveraged $17 million in ARP funds and received nearly $100 million from BIL and is now on track to

31 "Lead and Copper Rule Improvements", EPA, October 8, 2024, https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements.

Spotlight: Milwaukee, WI Lead Pipe Replacement

Nearly half a million lead pipes have been replaced nationwide under the Biden-Harris Administration, benefitting 1.2 million people. Milwaukee has received over $60 million in BIL funding for lead pipe replacement, accelerating the city's lead pipe replacement timeline from 60 years down to 10 years. The city has replaced nearly 6,000 lead pipes over the last four years. These efforts are securing clean water for people like Ms. Lillie Key, a grandmother and nursing assistant in Milwaukee who had her lead pipes replaced for free in the home where she raised her seven grandchildren.

The Administration designated Milwaukee as an Investing in America Workforce Hub to ensure these investments spurred good jobs in the city. Milwaukee is using union labor for lead pipe replacement and prioritizing replacements in disadvantaged communities with the most need. One person who has already benefited is Alonso Romo, a member of the Laborers Union Local 113 who found a good-paying union job replacing lead pipes in his community.

replace all lead pipes by 2026. Similarly, Akron, Ohio, plans to complete replacements by 2027 thanks to $9 million in funding through the ARP. Other cities have already finished replacing their lead pipes altogether, such as Benton Harbor, Michigan, which leveraged $18 million in funding from the ARP to complete this work.

Wastewater and Sanitation: The Biden-Harris Administration awarded $9.1 billion through the Clean Water State Revolving Fund General Supplemental program to fund wastewater and stormwater projects, with nearly half of the funding going to disadvantaged communities. This funding is benefitting communities like Lowndes County, Alabama, where a lack of basic sanitation infrastructure often leads to sewage being piped straight into residents' backyards. An award of $8.7 million through BIL is upgrading 650 home sewer connections in the coming years to bring adequate sanitation to the Lowndes County community of Hayneville.

PFAS and Emerging Contaminants: The Administration deployed both funding and regulatory action to protect communities from PFAS and other emerging contaminants, awarding $7 billion to address PFAS pollution in water. This funding was delivered through SRFs and the Emerging Contaminants in Small or Disadvantaged Communities Grant program and is reaching communities nationwide to launch PFAS treatment projects.

In addition, in April 2024, EPA issued the first-ever national legally enforceable standard for PFAS in drinking water. Under this rule, water systems that

Spotlight: Fayetteville, NC, PFAS Treatment

Fayetteville, North Carolina, has struggled with PFAS pollution for decades following industrial PFAS waste discharges into the Cape Fear River. As a result, testing has found elevated levels of PFAS in residents' blood, posing an increased risk of cancer and other health effects.

Thanks to the Biden-Harris Administration, Fayetteville received $60 million in funding to build a new facility to remove PFAS from the community's drinking water. This project is on track to be completed in 2028.

detect PFAS levels above this standard will be required to implement solutions and upgrade treatment systems to reduce PFAS in water. This rule will protect 100 million people from PFAS exposure, prevent tens of thousands of serious illnesses, and save lives.[32]

Tribal Water: The Administration awarded nearly $6 billion in funding through BIL and IRA for Tribal water projects. This included all $2.5 billion in Indian Water Rights Settlements funding and all $2.8 billion in available Indian Health Service (IHS) Sanitation Facilities Construction funding. The Sanitation Facilities Construction program has funded over 900 Tribal clean water projects through BIL, most of which are directly delivered by the IHS. In addition to distributing billions in funding, the IHS also took key steps to ensure successful delivery of its expanded project pipeline. These steps included signing agreements with other federal agencies to leverage additional capacity to complete project design, approving increased salary rates to spur hiring for certain critical engineer positions, and partnering with the U.S. Public Health Service Commissioned Corps to further increase staff capacity. The program's selected projects to date will help deliver clean water to 110,000 Tribal households.

Spotlight: Gila River Indian Community Water Projects, Arizona ($260M)

BIL and IRA funded several projects to help the Gila River Indian Community tackle drought and secure clean water. These projects worked together to set the Tribe up for success.

One project, the Reclaimed Water Pipeline Project, received $84 million for a pipeline to bring reclaimed water for irrigation, allowing the tribe to grow crops central to its economy while conserving a critical 200,000 acre-feet of water in the Colorado River Basin.

A second project received $6 million to install solar panels over a length of their canals, generating clean power while shading the water below to reduce evaporation losses and save more water for the Tribe.

Both projects are now complete and in operation.

Additionally, the ARP included the largest-ever direct investment in Indian Country, providing Tribal governments with resources to address high-priority water and sewer infrastructure needs. Tribal governments committed hundreds of millions of dollars from ARP's State and Local Fiscal Recovery Funds to over 300 clean water infrastructure projects.

Rural Water: The Administration awarded over $800 million through the Rural Water Projects program to seven major regional projects, including the Lewis and Clark Rural Water System in Iowa, Minnesota, and South Dakota. In addition to the dedicated funding for rural water, general-purpose BIL clean water programs funded hundreds of projects in rural communities. For example, the Arkansas Valley Conduit, first authorized by President John F. Kennedy, finally received significant funding through BIL to accelerate construction and deliver clean water to 50,000 people in rural Colorado.

Jobs and Manufacturing: These historic investments in our water system have not only delivered clean water, but have also advanced the President's vision to build the economy from the middle out and the bottom up. The funding awarded through SRFs to date is expected to create roughly 450,000 jobs for Americans in communities across the country.[33]

In addition, the President's Build America, Buy America Act requires these projects to be built using

32 "Final PFAS National Primary Drinking Water Regulation", U.S. Environmental Protection Agency, (April 10, 2024), https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.

33 US Water Alliance, "*The economic benefits of investing in water infrastructure,* (September 2023), https://uswateralliance.org/wp-content/uploads/2023/09/Economic-Impact-of-Investing-in-Water-Infrastructure_VOW_FINAL_pages_0.pdf.

Spotlight: Lewis and Clark Rural Water System ($152M)

The Lewis and Clark project constructed over 300 miles of water pipeline to deliver reliable clean water from the Missouri River to over 350,000 people in rural Iowa, Minnesota, and South Dakota. The project was incorporated over three decades ago, but $152 million in funding through BIL accelerated construction by a decade.

Today, all 20 of the project's member communities are now connected to its water supply. This includes the town of Madison, South Dakota which is now receiving reliable clean water and no longer has to ask residents to ration water.

The final stage of the Lewis and Clark project will further expand the water treatment capacity of the system and is on track to be completed in 2028.

American-made materials and products, spurring new private investments and jobs in domestic manufacturing in the water sector. For example, to meet the increased demand for water products and lead pipe replacement equipment, 5th-generation family business A.Y. McDonald has undertaken the largest capacity expansion in its 167-year history. This included breaking ground on a new 360,000-square-foot brass foundry in Dickeyville, Wisconsin that will be complete in 2026. The company's production workforce has increased 45 percent since 2021, with many of these being union workers. Further, Atlanta-based company Mueller Water Products has invested $150 million in expanding its U.S. manufacturing capacity, including a new brass foundry in Decatur, Illinois, that will create 250 jobs.

Looking Forward

The Biden-Harris Administration launched a generational mission to rebuild the nation's water infrastructure, which will benefit communities, families, and workers for years to come. As projects funded by this Administration continue to reach new milestones, millions of families will be able to rely on drinking water that is safe from lead and other contaminants, and people will be able to swim, fish, and play in their waters surrounded by a cleaner and more vibrant environment. The major progress achieved under this Administration in replacing lead pipes will only accelerate as cities continue to implement federal funding and meet the lead pipe replacement requirements in the new Lead and Copper Rule Improvements. Similarly, cities will move swiftly, leveraging federal funding, to build PFAS treatment systems and meet the Administration's PFAS drinking water standard. And thousands of drinking water and wastewater infrastructure projects will continue to move forward to improve water systems in urban, Tribal, and rural communities nationwide. In addition, Americans are leading longer, healthier lives while the foundation of safe drinking water attracts businesses to communities and fosters opportunity, including good-paying and union jobs, whether that be installing pipes underneath city streets or working on the production line at a new water product manufacturing facility.

More funding from BIL will continue to be distributed going forward, creating additional projects on the ground. Most of the BIL water programs are designed to deploy funding over a five-year timeframe, thus, there is still nearly $15 billion in remaining funds to distribute in the coming years. In addition, since most of the BIL water investments flow through the states, state governments will continue to deploy funding allocated from the federal government, and local water systems will put these dollars to use.

In the coming years, the work started by this Administration is expected to deliver the following benefits and milestones:

- Through SRFs, states will continue to award billions of dollars in funding received from the Biden-Harris Administration to specific local projects, and thousands of additional clean water projects will be underway or complete.
- The funding announced to date through SRFs is expected to create approximately 450,000 jobs.
- While thousands of water infrastructure project funds have already been completed with flexible ARP funds, thousands of additional ARP-supported projects will be completed by the end of 2026.
- By the end of 2028, communities will replace over 1 million additional lead pipes, bringing clean water to over 2.5 million people. And, *every* lead pipe will be replaced within 10 years.
- By 2029, water systems will complete PFAS treatment projects and come into compliance with the Biden-Harris Administration's standard for PFAS in drinking water, protecting millions of Americans from the harmful effects of "forever chemicals".
- When completed over the coming years, IHS awarded water projects will secure clean water for 110,000 Tribal households.

Connecting Everyone to Affordable, Reliable High-Speed Internet

High-speed Internet is no longer a luxury – it is a necessity for Americans to do their jobs, participate equally in school, access health care, and stay connected with family and friends. For the U.S. to fully compete in the global economy, universal access to high-speed Internet is essential.

When President Biden took office, nearly 30 million Americans lacked access to high-speed Internet infrastructure.[34] The problem was most drastic in rural America: one-third of rural Americans lacked access to high-speed Internet, and nearly one-in-five rural Americans lacked access to even a basic Internet connection.[35] But the digital divide is not simply an infrastructure challenge. Millions of Americans struggle to afford the cost of a monthly Internet subscription, and millions more lack the skills, devices, and tools to make full use of an Internet connection.[36]

Our Approach

The President and Vice President recognized that building out high-speed Internet networks would not be sufficient to close the digital divide. Instead, we needed a multifaceted approach that addressed the multiple reasons Americans struggle to make full, meaningful use of the Internet. Through ARP and BIL, the Biden-Harris Administration invested $90 billion to address all aspects of the digital divide, reflecting three pillars that underscore these investments:

- **Access:** Americans should be able to connect to the Internet from every home and small business in the country, no matter how rural or remote. The infrastructure that provides those connections should be long-lasting, reliable, and capable of scaling to meet ever-increasing demand for connectivity.
- **Affordability:** Internet connections must be affordable to the communities they serve, and Americans should know what level of service and performance they are paying for.
- **Adoption:** All people and communities should have the skills, technology, and capacity needed to reap the full benefits of our digital economy.

President Biden's ARP included $25 billion to increase affordable high-speed Internet access as part of the response to and recovery from the pandemic.

These programs were designed to be flexible and move quickly, immediately working to help address some of the most pressing connectivity needs of students, business owners, workers, Tribes, and com-

High-Speed Internet in the American Rescue Plan ($25B)

- $10 billion to states, territories, and Tribes to deliver affordable, reliable, high-speed Internet infrastructure and other connectivity projects through the Department of the Treasury's Capital Projects Fund (CPF).
- Approximately $8 billion committed for high-speed deployment and connectivity by states, territories and Tribes from the flexible State and Local Fiscal Recovery Funds (SLFRF). SLFRF resources have been committed to roughly 1,400 high-speed Internet infrastructure and connectivity projects across 52 states and territories; and
- $7 billion from the Federal Communications Commission's (FCC) Emergency Connectivity Fund program to help thousands of school districts and library systems to close the "homework gap," which limits students' ability to continue learning at home.

34 Federal Communications Commission, *2020 Broadband Deployment Report*, April 24, 2020, https://docs.fcc.gov/public/attachments/FCC-20-50A1.pdf.

35 Federal Communications Commission, *2020 Broadband Deployment Report,*, April 24, 2020, https://docs.fcc.gov/public/attachments/FCC-20-50A1.pdf.

36 Andrew Perrin, "Mobile Technology and Home Broadband 2021," Pew Research Center, June 3, 2021, https://www.pewresearch.org/Internet/2021/06/03/mobile-technology-and-home-broadband-2021/; Organization for Economic Cooperation and Development, "Skills Matter: Additional Results from the Survey of Adult Skills," November 15, 2019, https://www.oecd-ilibrary.org/education/skills-matter_1f029d8f-en.

High-Speed Internet in the Bipartisan Infrastructure Law ($64.5B)

The historic Infrastructure Law investments designed to address the country's long-term connectivity challenges included:

- $42.45 billion for the Broadband Equity, Access, and Deployment (BEAD) Program, which provided formula funding to every state and territory to connect all unserved homes and small businesses across the country;
- $14.2 billion for the Affordable Connectivity Program (ACP), which provided funding to reduce the cost of high-speed internet service for eligible Americans;
- $2.75 billion for the Digital Equity Act, which provides grants to ensure communities have the skills and support needed to take advantage of high-speed internet connections;
- $2 billion for the Tribal Broadband Connectivity Program, which provides grants to federally recognized Tribal governments, Tribal organizations, Tribal Colleges and Universities, the Department of Hawaiian Homelands, and Alaska Native Corporations for high-speed internet deployment on Tribal lands, as well as for telehealth, distance learning, high-speed internet affordability, and digital inclusion;
- $2 billion for the Department of Agriculture's (USDA) Reconnect Program, which provides loans and grants primarily to build high-speed internet infrastructure in eligible rural areas;
- $1 billion for the Middle Mile Program, which provides funding for the "middle mile" backbone of internet networks. Middle mile networks are akin to interstate highways, carrying large amounts of data over long distances. These networks not only lower the cost of connecting homes, but also make our nation's networks more resilient to natural disasters and other threats; and
- $10 million to fund the development of a new map that would show broadband access at individual homes, rather than across neighborhoods and communities.

munities across the country. ARP programs paved the way for historic investments in BIL – amounting to another $65 billion – which will deliver on the Biden-Harris Administration's historic commitment to connect everyone in America to affordable, reliable, high-speed Internet by the end of the decade.

The COVID-19 pandemic laid bare that more and more of our lives take place online, and our infrastructure needs to be able to grow with our needs. The Biden-Harris Administration's Internet investments account for that ever-growing usage by prioritizing fiber whenever possible and deploying other technologies as needed. By statute, BIL required the Administration to define "reliable Internet service." In line with the industry standard, the Administration determined that projects funded by the federal government – particularly from BEAD, the largest pot of funding – should prioritize the construction of networks built entirely with fiber, which is regarded as the gold standard because of its speed, longevity, and reliability. Fiber is even referred to as "future-proof" because fiber-based networks can be scaled up to meet new demand.[37] Where cost or logistics make fiber impossible, the Administration allows other technologies, like cable, fixed wireless, and satellite.

The President believes that Internet networks must be affordable to the people and communities they connect. BIL also provided $14.2 billion for the Affordable Connectivity Program (ACP), which provided eligible households with up to $30 per month (or up to $75 per month on qualifying Tribal Lands) toward their Internet bill. At its peak in 2024, the program served 23 million families—more than 1 in 6 households in the United States. Thanks to commitments from over 20 Internet service providers to offer low-cost plans, millions of Americans used ACP to access the Internet at no additional cost to themselves. Despite repeated requests from the President to continue the program, Congress allowed it to sunset in summer 2023 after two and a half years.

37 Vantage Point Solutions, "Future Proof: Economics of Rural Broadband," May 2021, https://www.ntca.org/sites/default/files/documents/2021-05/Future%20Proof%20--%20Economics%20of%20Rural%20Broadband%20FINAL_0.pdf.

Broadband Facts

Provider Name
Service Plan Name and/or Speed Tier
[Fixed or Mobile] Broadband Consumer Disclosure

Monthly Price	**$00.00**
This monthly price is an introductory rate	Yes / No
Time the introductory rate applies	YY months
Monthly price after the introductory rate	$00.00
Length of contract	YY months
Link to Terms of Contract https://www.example.com/terms-of-contract	

Additional Charges & Terms

Provider Monthly Fees	
Fee description	$00.00
Fee description	$00.00
Fee description	$00.00
Fee description	$00.00
One-Time Purchase Fees	
Fee description	$00.00
Fee description	$00.00
Early Termination Fee	$00.00
Government Taxes	Included/Varies by Location/$00.00

Discounts & Bundles

Visit the link below for available billing discounts and pricing options for broadband service bundled with other services like video, phone, and wireless service, and use of your own equipment.

https://www.example.com/discounts

Speeds Provided with Plan

Typical Download Speed	000 Mbps
Typical Upload Speed	000 Mbps
Typical Latency	00 ms
Data Included with Monthly Price	**000 GB**
Charges for Additional Data Usage	$/GB

https://www.example.com/data-usage

Network Management Policy
https://www.example.com/network-management

Privacy Policy
https://www.example.com/privacy

Customer Support
Phone: (555) 555-5555
Website: https://www.example.com

Learn about the terms used on this label. Visit the Federal Communications Commission's Consumer Resource Center.

fcc.gov/consumer

Unique Plan Identifier: F0005937974123ABC456EMC789

Even in the absence of ACP, however, the Administration worked to incorporate affordability into the other BIL-funded Internet programs. Through the BEAD Program, the Administration required every state to develop a plan to ensure networks funded in their state would be affordable for working and middle-class families.

Further, to ensure consumers know how much they are paying and for what level of service, BIL instructed the Federal Communications Commission (FCC) to require Internet companies to show Internet prices at the point of sale through a simple label modeled after the Food and Drug Administration's nutrition label. Designed to provide clear, easy-to-understand, and accurate information about the cost and performance of high-speed Internet services, these labels help consumers comparison shop for the Internet service plan that will best meet their needs and budget.

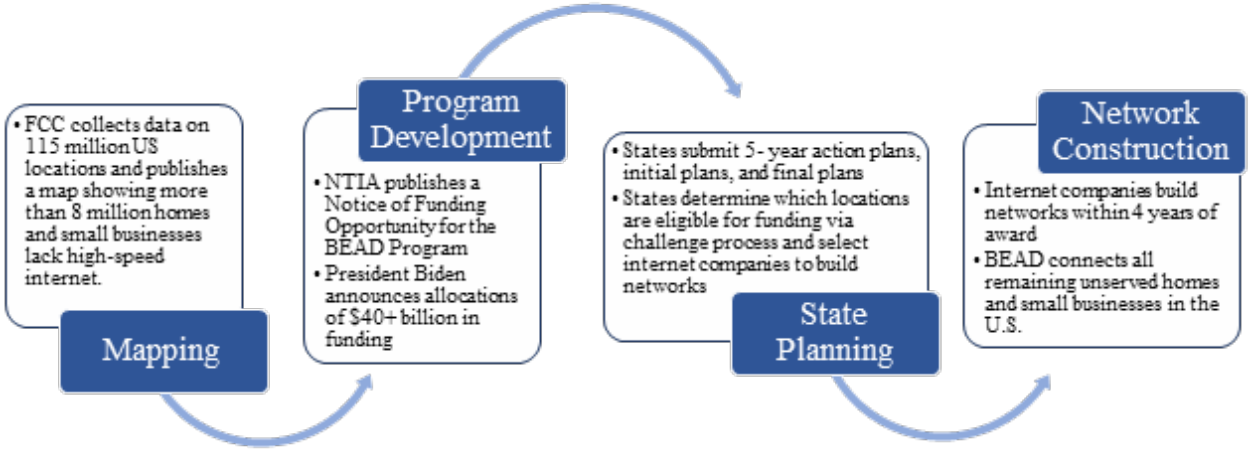
Despite access to an affordable connection, many Americans still struggle to get online. Disparities in Internet adoption fall among familiar lines of race, class, age, and ability. The Digital Equity Act, passed as part of BIL, is the largest investment in digital equity in our nation's history. The Act created multiple programs, including formula funding for states governments to take a bird's-eye view of digital equity in the state, and competitive funding for community-oriented nonprofits and organizations to address local barriers to increased adoption.

Our Record

Across BIL and ARP programs, over $88 billion—more than 98 percent of the $90 billion allocated for high-speed Internet—has been awarded or obligated to states, industry partners, and other community organizations. That funding is now at work, changing communities and lives by connecting Americans to opportunities miles or even states away. Together with states, territories, and other federal agencies, the Administration made significant progress on statutorily required steps in the BEAD Program. First, Congress required the FCC to complete a new map of high-speed Internet access before the Department of Commerce (DOC) could allocate the more than $42 billion in BEAD funding among states and territories. With $10 million in funding from BIL, the FCC undertook a major endeavor to revise its broadband data collection process. This effort involved collecting information at the location level as opposed to the Census-block level, creating a map that showed, for the first time ever, exactly how many homes and small businesses lacked access to high-speed Internet.

The FCC completed this map in May 2023, and President Biden announced allocations in BEAD funding for each state and territory in June 2023. Awards ranged from $27 million to over $3.3 billion. Nineteen states received over $1 billion. As required by Congress, all 56 states and territories completed BEAD five-year action plans and initial proposals, which explained how the states will distribute BEAD funding to connect every unserved home and small business. Fifty-five states and territories started the statutorily required "challenge process," or the process to determine which locations are eligible for funding, and 22 states began the process to select Internet companies to deploy networks. Three states completed the statutorily required final plan and can begin construction. One hundred percent of BEAD funding was obligated to states.

Since President Biden took office, more than 3 million homes and small businesses were connected to high-speed Internet for the first time. Construction is underway in 48 states for BIL and ARP-funded high-speed Internet networks, from Florida to Oregon. State and Local Fiscal Recovery Fund resources were committed to roughly 1,400 high-speed Internet infrastructure and connectivity projects across 52 states



and territories, and projects funded by the ARP's Capital Projects Fund are in the process of connecting more than 2 million homes and small businesses. Across 12 states, construction is underway on middle mile networks that will span more than 3,200 miles.

To connect the most rural, hard-to-reach places in the United States, USDA's ReConnect Program has invested approximately $4.4 billion since the beginning of the Biden-Harris Administration for 360 awards that will bring high-speed Internet access to more than 680,000 rural residents, farmers, and small businesses. More than $2.2 billion of this funding, which will benefit an estimated 341,000 people, was made available through BIL. In addition, USDA launched the Broadband Technical Assistance (BTA) program to support technical assistance projects such as conducting feasibility studies, completing network designs, and developing broadband financial assistance applications. Since the launch of the BTA program in April 2023, USDA has provided more than $16 million to support 42 technical assistance projects across 24 states.

One notable initiative, the HERO Project in North Carolina, broke ground in September 2024. The HERO Project is funding the construction of 209 miles of new middle mile fiber through central and southeastern North Carolina, including military communities located around Fort Liberty (formerly Fort Bragg), Pope Air Force Base, and Camp Lejeune. Tribes are also making progress in closing the digital divide in Indian Country. In Oklahoma, the Sac and Fox Nation received $35 million to connect all unserved Tribal homes, businesses, and anchor institutions with world-class 1000/1000 Mbps service. The project broke ground in 2024 and is already serving the community.

All across the country, networks funded by the Administration are now turning on, connecting homes to high-speed Internet for the first time. For example, Virginia has already connected more than 36,000 homes and businesses to high-speed Internet thanks to Capital Project Fund-supported projects. In California, the Shingle Springs Band of the Miwok Indians completed a fiber-to-the-home network with BIL

Spotlight: Rural Wisconsin High-Speed Internet Connection

Behind each connection is a story of a family or small business owner who has benefited from the Biden-Harris Administration's historic investment in high-speed connectivity. Wisconsin received $1.7 billion in funding from the Administration to connect everyone in the state to the internet by 2030—including leveraging over $140 million from ARP building new fiber connections in underserved areas like rural western Wisconsin.

These connections are benefiting families and businesses like those of Emile and Camille Smith of Seneca, Wisconsin. The Smiths own a carpentry business, reworking industrial timber into household goods. For years, the Smiths struggled with a slow and unsatisfactory internet connection. They worried their business wouldn't survive if they couldn't access the kind of connectivity required to send and download large files from clients. An ARP-funded project helped connect the Smiths and their community to highspeed internet in 2023. The connection even made it possible for the Smith's son to move back to the Seneca area and join the family business.

funding, connecting the remaining unserved homes on the Shingle Springs Rancheria.

These investments are creating thousands of good-paying manufacturing and construction jobs in places like North Carolina, New York, and Arizona. Thanks to the Administration's historic high-speed Internet investments and Made-in-America policies, network equipment manufacturers invested nearly $1 billion across 11 states to expand manufacturing facilities' capacity so that fiber-optic cable and network electronics are made here in the United States by American workers.

At the same time, programs to advance affordability and digital equity are underway, ensuring that new connections funded by this Administration are useful to the people and communities they serve, particularly "Covered Populations" (households with incomes below 150 percent of the poverty level, aging individuals, incarcerated individuals, veterans, individuals with disabilities, individuals with a language barrier, individuals who are members of a racial or ethnic minority group, and individuals who primarily reside in a rural area).

Additionally, the FCC's broadband labels are now helping more than 300 million Americans understand exactly how much they pay for phone and home Internet service. The Emergency Connectivity Fund provided roughly 18 million students with connected devices or high-speed Internet connections. Every state and territory developed a digital equity plan, and states are now using funding from the Digital Equity Capacity program to meet the unique needs of their state. The Administration announced $250 million in Digital Equity Competitive funding to localities, schools, and community-focused organizations all over the country—a program so critical that over 700 organizations applied for six times the amount of funding available. Of the $2.75 billion dedicated to digital equity in BIL, $1.5 billion is left in FYs 2025 and 2026.

Looking Forward

President Biden made a commitment to connect everyone in America to affordable, reliable, high-speed Internet by 2030. This Administration is on track to meet that goal.

When the FCC finalized its new map of Internet access, the map showed that 8.5 million homes and small businesses lacked high-speed Internet. Now, after historic public and private sector investment, over 3 million homes and small businesses have already been connected to high-speed Internet for the first time—and the groundwork has been laid to connect the remaining 5 million homes and small businesses that still lack high-speed Internet and the 2.5 million homes with only slow or unreliable service over the remainder of the decade.

The Biden-Harris Administration has awarded or obligated more than 98 percent of available funding for high-speed Internet. The Tribal Broadband Connectivity Program and the Digital Equity programs have available funding left to award; this funding is critical to ensuring that no community is left behind as we close the digital divide.

Because of the policies required by the Biden-Harris Administration, high-speed Internet projects completed with funding from the BIL need to offer a low-cost service option to eligible households, ensuring that networks not only reach all Americans but are affordable to the communities they connect.

In the coming years, the work started by this Administration is expected to deliver the following benefits and milestones:

- All ARP funded Internet infrastructure projects – over 1,400 projects across all 50 states – will be completed by 2026;
- All 37 BIL-funded middle-mile projects will be completed by 2028 bringing more than 12,000 new miles of middle-mile fiber online, making our nation's Internet networks faster and more resilient to natural disasters and security risks;
- All 56 states and territories will be able to begin construction on BEAD-funded projects in 2025 and projects will be completed by 2029; and
- Every home and small business in America will be connected with affordable, reliable, high-speed Internet by 2030.

President Biden and Vice President Harris committed to tackling the climate crisis with the urgency that science demands. The Biden-Harris Administration has treated the climate crisis as not only one of the greatest challenges of our time, but also as an opportunity to grow a clean energy economy that creates good-paying and union jobs for workers, lowers costs for families, reduces pollution, and strengthens America's energy security. This commitment started on Day One, with groundbreaking executive orders to rejoin the Paris Agreement, protect the environment, advance environmental justice, and continued through the passage of the Inflation Reduction Act—the largest climate bill in U.S. history.

President Biden set ambitious climate goals for the United States, including reducing U.S. GHG emissions by 50 to 52 percent in 2030 and by 61 to 66 percent in 2035 compared to 2005 levels, and achieving 100 percent clean electricity by 2035. To help meet these goals, the Investing in America agenda—the largest investment in climate action and clean energy in history—made key investments to accelerate the deployment of commercially available clean energy technologies, invest in the development of new technologies with game-changing potential to deliver clean, reliable energy to Americans at an affordable cost, and reduce pollution across all sectors.

First, the Investing in America a genda made strategic investments to support clean, reliable electricity, including through a historic suite of clean energy tax credits that will add a new generation to the grid, and investments to upgrade the country's aging power grid infrastructure. An estimated 70 percent of the grid's transmission lines and power transformers are over 25 years old, contributing to wasteful inefficiencies and disruptions in the face of extreme weather.[38] In addition, nearly one in six Americans—approximately 55 million people—live in a remote or rural community where delivering power reliably can pose challenges.[39] Households in rural, and Tribal communities may pay more for energy as a percentage of their household income and may not have the resources—individually or as a community—to invest in new transmission systems and clean electricity.[40]

Second, to meet the ambitious climate goals set by President Biden, the Investing in America agenda tackled the need to reduce emissions beyond the power sector. The most emissions-intensive industrial sectors—including steel, aluminum, and concrete—are also a part of the clean energy and infrastructure supply chain and are essential to U.S. national and economic security. Safely deploying technologies like clean hydrogen, carbon capture and storage, and industrial access to affordable clean electricity at scale is critical for decarbonizing many industrial processes, and the Investing in America agenda made historic resources available for deploying these technologies. In the buildings sector, heating and cooling are some of the largest expenses for many Americans with the lowest-income families spending upwards of 30 percent of their income on energy bills.[41] The Investing in America agenda dedicated significant investments to helping American families and small businesses install energy efficiency improvements and clean energy solutions to save money and reduce pollution at the same time.

Third, the Investing in America agenda focused funds on the sectors that are the largest sources of domestic emissions. The transportation sector is the largest source of GHG emissions in the United States, accounting for 27 percent of all such emissions in

38 U.S. Department of Energy, *What does it take to modernize the US energy grid?*, October 19, 2023, https://www.energy.gov/gdo/articles/what-does-it-take-modernize-us-electric-grid.

39 Tracey Farrigan, Brandon Genetin, Austin Sanders, John Pender, Kelsey L. Thomas (Conley), Richelle L. Winkler, and John Cromartie, *Rural America at a Glance*, November 2024, https://www.ers.usda.gov/publications/pub-details/?pubid=110350.

40 U.S. Department of Energy, "Tribal Electricity Access and Reliability," August 2023, https://www.energy.gov/sites/default/files/2024-01/EXEC-2023-000952%20-%20Tribal%20Electricity%20Access%20Reliability%20Report%20to%20Congress%20%28Final%20Draft%20-%20Clean%29-signed%20by%20S1.pdf.

41 Ma, Ookie, Low-Income Energy Affordability Data - LEAD Tool - 2018 Update, 2018, https://dx.doi.org/10.25984/1784729. https://data.openei.org/submissions/573.

2020.[42] In 2021, the U.S. market share of plug-in electric vehicle (EV) sales was only one-third the size of the Chinese EV market.[43] President Biden set a goal that at least 50 percent of all new passenger cars and light trucks sold in 2030 be zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles (EVs). Consumer surveys showed that lack of publicly available charging infrastructure was one of the main deterrents to switching from an internal combustion engine vehicle to an EV.[44] As of January 2021, the U.S. only had about 96,000 publicly accessible EV chargers available.[45] President Biden set a goal of building out a network of 500,000 publicly accessible EV chargers by 2030.

Our Approach

The Investing in America agenda included grant and loan funding and tax credits to meet the moment and make progress toward the nation's ambitious climate goals. BIL invested over $62 billion through the Department of Energy (DOE) to advance the nation's clean energy future by supporting clean energy demonstration and deployment projects, researching and developing new technologies, and modernizing the power grid. The IRA built on this by making the most ambitious investment in clean energy in the nation's history. It included two dozen new or modified tax incentives and tens of billions of dollars in grant and loan programs across multiple agencies to unleash new clean energy technology investments and supercharge the transition to a clean energy economy. These investments were designed to unlock transformative change that not only built a low-carbon energy system with American-made technology but also delivered lower energy costs and good-paying and union jobs, particularly in communities that are underserved, low-income, or overburdened by pollution.

Financing and Expediting Deployment of Clean Energy Technologies: The IRA included several tax provisions and significant grant and loan programs to support the deployment of commercially available and innovative clean energy technologies. This included modifying and extending the existing Production Tax Credit (PTC) and Investment Tax Credit (ITC) for clean energy, which have helped drive the deployment of wind farms and solar arrays in the U.S.

The IRA modified and extended the current PTC (45) and ITC (48) for projects that began construction in 2023 and 2024, including a credit for energy storage technologies such as grid-connected batteries, thermal storage, and hydrogen storage. Starting in 2025, these were replaced with technology-neutral, emissions-based credits: the Clean Electricity PTC (45Y) and Clean Electricity ITC (48E). These technology-neutral credits enable clean energy project developers to choose whether the PTC or ITC is most advantageous, creating greater flexibility and expanded financing opportunities. The U.S. Department of the Treasury (UST) issued guidance clarifying that qualifying zero-emissions technologies include wind, solar, geothermal, hydropower, nuclear fission, and fusion projects, as well as battery storage. It also provides rules for determining the lifecycle GHG emissions of combustion and gasification technologies like biomass-based electricity generation, as required by the statute. President Biden always emphasized that when he thinks clean energy, he thinks jobs. To ensure the Administration met this goal, the IRA requires project developers to pay workers constructing or repairing the qualifying facilities prevailing wages and employ registered apprentices to access the full value of the PTC and ITC. This approach made clean energy jobs good-paying and union jobs.

To align with the President's economic vision to bring all American communities along, the IRA introduced bonus tax credits on top of the PTC and ITC to drive greater investment into the communities that could benefit most from increased access to low-cost clean

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42 U.S. Department of Energy, "The U.S. National Blueprint for Transportation Decarbonization," January 2023, https://www.energy.gov/sites/default/files/2023-01/the-us-national-blueprint-for-transportation-decarbonization.pdf.

43 "Today's electric vehicle market: Slow growth in the U.S., faster in Europe, China," Pew Research Center, June 7, 2021, https://www.pewresearch.org/short-reads/2021/06/07/todays-electric-vehicle-market-slow-growth-in-u-s-faster-in-china-europe/.

44 "EV Divide Grows in U.S. as More New-Vehicle Shoppers Dig in Their Heels on Internal Combustion," J.D. Power, 1 May 2023, https://www.jdpower.com/business/resources/ev-divide-grows-us-more-new-vehicle-shoppers-dig-their-heels-internal-combustion?srsltid=AfmBOopnUdh3Rdxq6lyWCR1IHELH2X-Wlp0Bqpz0qpocAMEFjzN6a2pEb.

45 "Alternative Fuels Data Center," U.S. Department of Energy, January 2021, https://afdc.energy.gov/stations#/analyze?country=US&fuel=ELEC&ev_levels=all&access=public&access=private.

energy. These included: the Energy Communities bonus tax credit, which provided a 10-percentage-point boost on top of the PTC or ITC; the Low-Income Communities bonus credit—48(e) / 48E(h)),—which offered either a 10- or 20-percentage-point boost on top of the ITC for small (< 5 MW) projects placed in service in low-income communities, on Tribal lands, in association with certain low-income housing facilities, or those providing economic benefits to low-income households; and the Domestic Content bonus credit, which provided a 10-percentage-point boost on top of the PTC or ITC for projects meeting standards for using American-made clean energy technologies in their facilities.

The IRA also provided EPA with $27 billion for the GHG Reduction Fund to award competitive grants to mobilize financing and leverage private capital for clean energy and climate projects that reduced GHG emissions, with an emphasis on projects benefiting low-income and disadvantaged communities. The grant recipients receiving funds under the $14 billion National Clean Investment Fund, the $6 billion Clean Communities Investment Accelerator, and the $7 billion Solar for All program are creating a national financing network for clean energy and climate solutions across the country, with approximately two-thirds of the funding dedicated to low-income and disadvantaged communities.

The IRA also contained the largest investment in rural electrification since the New Deal, with more than $10 billion in funding for grants and loans through USDA to help rural electric cooperatives that serve the 13 percent of American households living in rural areas invest in clean energy and grid upgrades. Additionally, the IRA provided DOE's Loan Programs Office (LPO) with over $300 billion in loan authority supported by $11.7 billion in credit subsidy for loan guarantees for innovative clean energy technologies, advanced technology vehicle manufacturing, reinvestments in energy infrastructure, and Tribal energy financing.

With these investments in place, the electric power sector now has more tools than ever to deploy clean energy and upgrade the grid to support more factories, electric vehicles, and other growing sources of electricity demand. To ensure that power companies use the tools available to reduce pollution and protect the health and wellbeing of communities, the Biden-Harris Administration issued a suite of standards for fossil fuel power plants to cut GHG emissions as well as toxic air pollution, water pollution, and land contamination.

Revitalizing American Manufacturing to Build the Clean Energy Economy: The Investing in America agenda included several funding and tax programs to boost domestic manufacturing of clean energy technologies that created good-paying manufacturing jobs. This included the expansion of the Advanced Technology Vehicles Manufacturing (ATVM) Direct Loan Program at DOE with $3 billion in credit subsidy to issue loans for a range of advanced technology vehicle manufacturing, EV battery supply chains, and their components. Most notably, the new Advanced Manufacturing Production Credit (45X) created by the IRA provides a per-unit tax credit for the production of certain clean energy technologies in the United States, which has sparked a surge in American manufacturing of solar modules and solar components, wind turbines, blades, and towers, batteries for grid storage or EVs, and refined critical minerals. The IRA also extended and expanded the Advanced Energy Project Credit (48C), originally authorized in the American Recovery and Reinvestment Act (ARRA), providing $10 billion in allocated tax credits for clean energy manufacturing, critical minerals refining, and industrial decarbonization. The IRA expanded domestic heat pump production by 860,000 appliances per year, which cuts emissions, reduces energy costs, and improves health in homes and buildings across the country. The IRA also included $2 billion for DOE's Domestic Manufacturing Conversion Grants, which funds the retention of high-quality jobs and manufacturers' retooling of production lines to serve the growing demand for clean vehicles.

Investing in America's Electricity Grid: BIL and the IRA provided over $20 billion in funding and financing to strengthen and modernize the nation's grid. BIL included the Transmission Facilitation Program, which provided $2.5 billion in borrowing authority to support the development of new and upgraded large-scale transmission lines. The $10.5 billion Grid Resilience and Innovation Partnership (GRIP) Program was funded to help build transformative projects that modernized and increased the reliability of the

power grid and provide American communities and businesses with better access to affordable, reliable, clean electricity. The $2.3 billion Grid Resilience State and Tribal Formula Grants program complements GRIP with funding to states, territories, and Tribes to strengthen and modernize America's power grid against wildfires, extreme weather, and other natural disasters. The IRA supported the effort to modernize America's electricity grid and accelerate the buildout of long-distance transmission lines. This included $2 billion for DOE to carry out a loan program for the construction or modification of electric transmission facilities in the national interest and $760 million in grant funding to advance critical transmission projects by accelerating siting and permitting while supporting economic development efforts in communities impacted by construction and operation of transmission projects.

Investing in Affordable and Reliable Clean Energy in Rural America and on Tribal Lands: The IRA provided more than $12 billion to help rural and Tribal communities access more clean energy, make their energy systems more reliable and resilient, and lower their electricity costs. This included $9.7 billion at USDA for the Empowering Rural America (New ERA) program to support member-owned rural electric cooperatives in providing their communities with clean, reliable, and affordable energy. It also included $1 billion at USDA to finance clean energy in rural areas and over $2 billion to expand USDA's Rural Energy for America Program (REAP), which provides guaranteed loan financing and grant funding to agricultural producers and rural small businesses for renewable energy systems or energy efficiency improvements. Additionally, the IRA provided $150 million to the Tribal Electrification Program at DOI, which supported the powering of unelectrified Tribal homes with zero-emissions energy systems and the retrofitting of already electrified Tribal homes to zero-emissions systems. These IRA investments are complemented by the $1 billion Energy Improvements in Rural or Remote Areas program in BIL funding at DOE to improve the resilience, reliability, and affordability of energy systems across rural and remote American communities.

Incentivizing and Supporting Deployment of Clean Vehicles: The Administration took a comprehensive approach to making it easier and more affordable for Americans who choose to switch to EVs and power those vehicles, with three key categories of investments: first, making it more affordable to purchase an EV; second, onshoring the manufacturing of batteries for electric vehicles; and third, reducing range anxiety by supporting the buildout of a national network of EV chargers. Alongside these investments, the Administration also set the strongest-ever vehicle emission standards for passenger cars and heavy-duty trucks, and increased average fuel economy standards to 49 miles per gallon, to protect communities from pollution and save drivers money at the pump.

First, the IRA provided consumer incentives to put more clean vehicles on the road and committed to making more of those vehicles and their components in the U.S. This included the Clean Vehicle Credit (30D), which provided up to $7,500 for consumers purchasing qualifying new clean vehicles, and the first-of-its-kind Credit for Previously-Owned Vehicles (25E), which offered up to $4,000 for consumers buying qualifying used electric vehicles. Beginning in 2024, consumers were able to transfer these credits to participating car dealers at the point of sale—meaning they could receive up to $7,500 off the sticker price of their vehicle on the day they drove it home. The IRA also included a Commercial Clean Vehicles Credit (45W) to defray up to 30 percent of the cost of replacing diesel or gas-powered commercial vehicles, ranging from cars and pick-up trucks to long-haul trucks, with EVs.

Second, BIL and IRA included funding to grow the domestic supply chain for clean vehicles. BIL invested $7 billion in funding for EV batteries and critical materials to accelerate innovations and production across the battery supply chain by supporting battery manufacturing, processing, and recycling.

Third, BIL invested $7.5 billion to build out the first-ever national network of EV chargers in the United States—a critical element to President Biden's goal to deploy a network of 500,000 EV chargers by 2030 and accelerate the adoption of EVs to address the climate crisis and support domestic manufacturing jobs. This included $5 billion in formula funding through the National Electric Vehicle Infrastructure (NEVI) program, which provided funding directly to states to build out fast chargers every 50 miles along

major highways, ensuring that drivers can travel all major corridors without worrying about their next charge. An additional $2.5 billion in competitive funding was available through the Charging and Fueling Infrastructure (CFI) program to install chargers in communities where people live, work, and shop. In addition to funding from BIL, the IRA modified and extended the existing Alternative Fuel Vehicle Refueling Property Credit (30C), which provides a tax credit for up to 30 percent of the cost of installing alternative fuel vehicle refueling property, such as EV chargers and hydrogen refueling infrastructure.

Incentivizing and Supporting Development and Use of Cleaner Transportation Fuels: IRA incentivized and invested in a range of non-petroleum-based fuels for cars, trucks, and the aviation sector. This included $500 million for the Higher Blend Infrastructure Incentive Program at USDA to provide grants to improve infrastructure for blending, storing, distributing, and supplying biofuels. IRA also extended tax incentives for a range of alternative fuels, including biodiesel, renewable diesel, and second-generation biodiesel, through the end of 2024. Beginning in 2025, a new emissions-based Clean Fuel Production Credit (45Z) took effect to incentivize the production of both transportation and aviation fuels with low lifecycle GHG emissions. IRA also included $297 million to FAA to fund projects that supported investments in sustainable aviation fuel and low-emission aviation technologies. These programs were part of the Administration's comprehensive strategy to deploy technologies to produce sustainable aviation fuel on a commercial scale, including the Sustainable Aviation Fuel Grand Challenge, a joint effort of DOE, DOT, and USDA.

Expanding America's Leadership in Industrial Decarbonization and Carbon Management: IRA provided billions of dollars in grants to help decarbonize industrial facilities and included tax credits to expand and improve carbon capture and storage and direct air capture technologies. This investment complemented funding from BIL, which provided $12 billion at DOE for carbon management, research, demonstration, and deployment over five years. BIL and IRA included $6.3 billion for the new Industrial Demonstrations Program to fund first-in-the-nation deployment of game-changing technologies that will slash emissions, create good union jobs, and revitalize manufacturing of steel, aluminum, cement, and other emissions-intensive sectors that form the backbone of our economy. To pair this supply-side push with a demand-side pull, the Biden-Harris Administration launched the Federal Buy Clean Initiative, which leverages the sway of the U.S. government – the largest purchaser in the world – to catalyze demand for clean manufacturing. IRA included more than $4 billion for federal agencies to support clean American manufacturing when purchasing steel and glass for federal buildings or concrete and asphalt for roads and highways.

Congress directed the Administration to advance carbon capture and storage technology and provided funding to do so through BIL and IRA. The Administration committed to ensuring that carbon capture projects were designed, built, and operated safely and responsibly, in ways that reflected the best science and responded to the needs and inputs of local communities, with environmental justice front and center. Specifically, the IRA extended and expanded the 45Q tax credit for carbon capture, utilization, and sequestration to include enhanced credit and lowered the carbon capture threshold requirements for certain facilities to benefit from the credit. This tax credit complemented funding in BIL for carbon capture and storage direct air capture, including $2.5 billion for the Carbon Capture Demonstration Projects Program, $937 million for Carbon Capture Large-Scale Pilot Programs, and $3.5 billion for the Regional Clean Direct Air Capture Hubs Program. The IRA also provided $1.55 billion to EPA to work with industry to mitigate emissions of super-polluting methane and hydrofluorocarbons—investments that are working in tandem with EPA's final rules that set smart standards for reducing wasteful methane emissions from oil and gas operations by nearly 80 percent, and that guide a national phasedown of hydrofluorocarbons to provide a 40-percent reduction starting in 2024 and an 85-percent reduction by 2036.

Investing in Clean Hydrogen: BIL included $9.5 billion for clean hydrogen initiatives. Of that, DOE allocated $8 billion for the Regional Clean Hydrogen Hubs program to establish hydrogen hubs across the nation and create jobs, markets, and infrastructure to expand the use of clean hydrogen in the industrial sector and beyond, and a hydrogen demand side

support mechanism to further the clean hydrogen economy and support the hydrogen hubs; $1 billion for a Clean Hydrogen Electrolysis Program to reduce the cost of hydrogen produced from clean electricity; and $500 million for Clean Hydrogen Manufacturing and Recycling Initiatives to support equipment manufacturing and strengthen domestic supply chains for clean hydrogen. The IRA built on this by creating a new Hydrogen Production Tax Credit (45V) to incentivize the domestic production of clean hydrogen, making this emerging low-carbon fuel source more cost-competitive.

Making Homes and Buildings Cleaner and More Efficient: IRA helped homeowners make upgrades to save energy and reduce their home energy costs. New tax credits and deductions in the IRA reduced the cost of energy-efficient home upgrades, including heat pumps and other appliances, windows, doors, and more; offset the cost of adding residential clean energy sources, such as solar panels and battery storage; and made constructing energy-efficient single- and multi-family homes cheaper and easier. The law also included nearly $9 billion for consumer home energy rebate programs to electrify home appliances and perform energy-efficient retrofits, focusing on low-income consumers. HUD's Green and Resilient Retrofit Program provided over $800 million in grants and $40 billion in loan authority to cut emissions and energy costs while improving resiliency in affordable housing, benefiting low-income households. These grants and loans will increase energy and water efficiency, reduce climate pollution, generate renewable energy, reduce housing operating costs, promote the use of green building materials, and improve the quality of life for residents by making their homes more resilient to climate hazards.

IRA also made new homes more efficient with the home energy tax credit, which provided up to $2,500 per ENERGY STAR home and $5,000 per Zero Energy Ready Home. Additionally, $1 billion from the DOE's IRA funding went to cities and states to help them adopt the latest energy codes and train their workforce. These programs built on investments in BIL, including the $3.5 billion for the expansion of the Weatherization Assistance Program to improve home energy efficiency for low-income families, the $250 million for the Energy Efficiency Revolving Loan Fund Capitalization Grant Program, allowing states to provide loans and grants for energy efficiency audits, upgrades, and retrofits, and the $550 million for the Energy Efficiency and Conservation Block Grant Program, which assisted states, local governments, and Tribes in implementing strategies to reduce energy use and improve efficiency. IRA also provided tax incentives, grants, and loans to make commercial and residential buildings, including federally-assisted housing, more energy efficient and resilient to the impacts of a warming climate. These efforts complemented investments in BIL, including $225 million for the Building Codes Implementation for Efficiency and Resilience Program at DOE, which helped states sustain cost-effective implementation of updated building energy codes.

Leveraging the Federal Government to Catalyze Clean Energy Jobs and Cut Costs and Pollution: President Biden charged the Administration with leading by example by sustainably managing the federal footprint of over 300,000 buildings, more than 600,000 vehicles, and $730 billion spent annually on goods and services. He recognized that as the single largest landowner, energy consumer, and employer in the nation—and the largest purchaser in the world—the

The Inflation Reduction Act's Direct Pay Provision

Thanks to the Inflation Reduction Act's "elective pay" (often called "direct pay") provisions, tax-exempt and governmental entities have for the first time been able to receive a payment equal to the full value of tax credits for building qualifying clean energy projects. Unlike competitive grant and loan programs, in which applicants may not receive an award, direct pay allows entities to get their payment if they meet the requirements for both direct pay and the underlying tax credit.

Applicable entities can use direct pay for 12 of the Inflation Reduction Act's tax credits, including for generating clean electricity through solar, wind, and battery storage projects; building community solar projects that bring clean energy to neighborhood families; installing electric vehicle (EV) charging infrastructure; and purchasing clean vehicles for state or city vehicle fleets. More than 400 schools across the U.S. used direct pay in 2023 to install solar, geothermal, EV infrastructure, and other improvements, cutting costs and emissions.

federal government could tackle the climate crisis in ways that catalyzed private sector investment, expanded the economy, and bolstered American industry. On December 8, 2021, President Biden signed Executive Order 14057 on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability and issued his Federal Sustainability Plan, which directed the federal government to achieve net-zero emissions by 2050 by transitioning federal infrastructure to zero-emission vehicles and energy-efficient buildings powered by carbon pollution-free electricity.[46] With more than $12 billion in funding from IRA and BIL, the federal government launched thousands of projects to transition to electric vehicles, clean construction materials, and energy-efficient buildings powered by 100 percent clean electricity.

Our Record

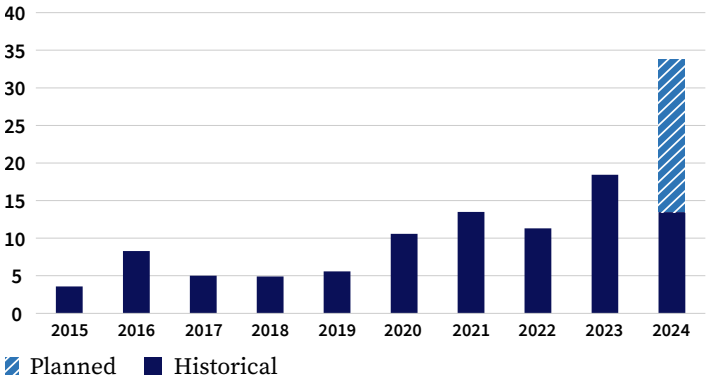
The Biden-Harris Administration awarded over $100 billion in IRA funds, representing nearly 90 percent of IRA funding available through the end of fiscal year 2024. The IRA also established 10 years of clean energy tax credits, providing unprecedented policy certainty and significant incentives for private companies to make bigger investments in clean energy. UST guidance was made available on all but one of 24 tax provisions created or extended in the IRA. IRA tax credits ensured the transition to a clean energy economy was government-enabled and private sector-led. These tax credits provided clarity and certainty to the clean energy industry, resulting in an influx of private investments: since President Biden took office, companies announced over $472 billion in new clean power manufacturing and deployment investments across nearly every state. Many of these investments happened in communities that have been historically left out or left behind—since the IRA passed, 75 percent of private sector clean energy investments occurred in counties with lower-than-median household incomes, and clean energy investment in energy communities doubled.[47] Additionally, clean energy projects created more than 330,000 jobs in nearly every state in the country, according to external analysis.[48]

Financing and Expediting Deployment of Clean Energy Technologies: UST issued guidance for key clean energy generation incentives, including the PTC and ITC, and the bonus tax credits for energy communities, domestic content, and low-income communities. The Advanced Manufacturing Production Credit is driving substantial private-sector investment in the U.S., including over $170 billion for EV, battery, and clean energy manufacturing since the IRA passed.

In addition, EPA obligated all $27 billion in awards through its GHG Reduction Fund. Twenty billion of these awards went toward a national clean energy financing network that supported tens of thousands of clean energy projects, reducing or avoiding millions of metric tons of carbon pollution annually over the next seven years. The other $7 billion in awards through the Solar for All program saved over $350 million each year on energy bills for over 900,000 low-income and disadvantaged households through residential solar.

Annual Solar Capacity Additions are Breaking Records

Gigawatts per year



Source: U.S. Energy Information Administration.
Note: Historical from EIA Monthly Energy Review. Planned from EIA Form 860M.
As of December 20, 2024

46 "Federal Sustainability Plan", The White House, December 2021, https://www.sustainability.gov/pdfs/federal-sustainability-plan.pdf

47 "The Inflation Reduction Act: A Place-Based Analysis", U.S. Department of the Treasury, November 29, 2023, https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-a-place-based-analysis

48 "Over 330,000 New Clean Energy Jobs Created in Two Years Since Passage of the Inflation Reduction Act", Climate Power, August 16, 2024, https://climatepower.us/news/over-330000-new-clean-energy-jobs-created-in-two-years-since-passage-of-the-inflation-reduction-act/

With these investments in place, the United States has brought more than 100 gigawatts of clean energy generation online since the start of the Biden-Harris Administration—enough to power 25 million homes, with more than half of all solar energy ever installed in the United States added during the Biden-Harris Administration.

Revitalizing American Manufacturing to Build the Clean Energy Economy: UST issued guidance for both the extension of the Qualifying Advanced Energy Project Credit (48C) and the Advanced Manufacturing Production Credit (45X) and allocated all $10 billion in credits available under 48C. DOE competitively selected 146 projects for $7.93 billion to strengthen domestic clean energy supply chains and create high-quality jobs. When accounting for private cost shares, nearly $40 billion in funding was awarded to revitalize American manufacturing and build the clean economy. Since President Biden took office, companies announced more than 900 new or expanded U.S. clean energy factories, across technologies like solar panels, batteries, EVs, heat pumps, hydrogen electrolyzers, and more.

Investing in America's Electricity Grid: Over the last four years, the Biden-Harris Administration has financed or permitted more than 5,000 miles of major new electric transmission lines, which are expected to unlock more than 60 gigawatts of clean energy capacity. Through its Grid Deployment Office, DOE selected over 100 projects for $7.6 billion in competitive federal funding from the Grid Resilience and Innovative Partnerships (GRIP) program, leveraging substantial amounts of additional public and private sector funding to build out a better, more resilient, reliable and affordable electric grid for 90 million homes and businesses nationwide. Additionally, 49 states, Washington D.C., five territories, and 254 Tribes received approximately $1.3 billion in funding through the Grid Resilience State and Tribal Grant Program. These investments are enabling 67 gigawatts of grid capacity and new resources, equivalent to powering 50 million homes each year. These investments will also help build out and upgrade more than 4,375 miles of new transmission lines by 2031, more than 11 times the number of miles developed in 2021. This funding has also crowded in many billions more in private and nonfederal investments; for example, to date, the DOE's Grid Deployment Office has awarded $14.5 billion in competitive funding selections and formula grants that have resulted in $36.9 billion of total investment.[49]

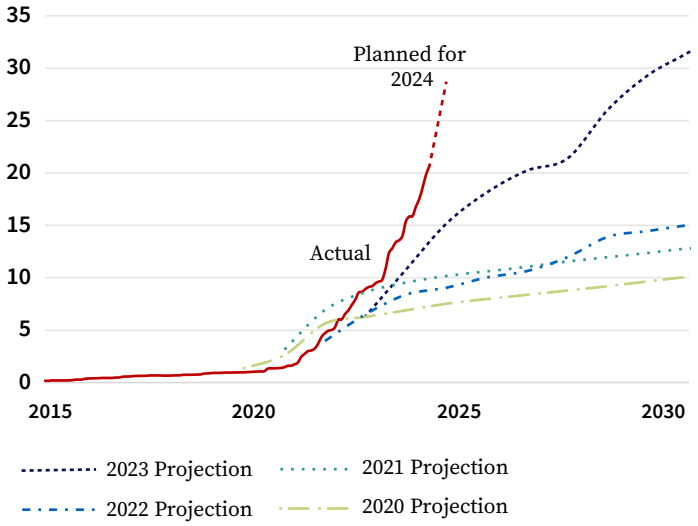
Spotlight: Joint Targeted Interconnection Queue Transmission Study Process and Portfolio ($464M)

The Joint Targeted Interconnection Queue Transmission Study Process and Portfolio, or JTIQ, was funded by DOE to coordinate the planning and construction of transmission projects across seven Midwestern states – Iowa, Kansas, Nebraska, North Dakota, Minnesota, Missouri, and South Dakota.

This project will unlock approximately 30 gigawatts of renewable energy generation, lower energy costs, and enhance community engagement and workforce development.

Grid-Scale Storage Continues to Advance Ahead of Projections

Gigawatts



Source: U.S. Energy Information Administration.
Note: Projections from EIA Annual Energy Outlook. Actuals from EIA Monthly Energy Review. Planned from EIA Form 860M. As of December 20, 2024.

49 U.S. Department of Energy, *2024 Wrap-Up: Advancing a More Powerful Grid*, (2024), https://www.energy.gov/gdo/articles/2024-wrap-advancing-more-powerful-grid.

Investing in Affordable and Reliable Clean Energy in Rural America and on Tribal Lands: USDA has obligated more than $9 billion in New ERA funding across 35 states so far, with the rural electric cooperatives committing to build or purchase nearly 13 gigawatts of clean energy. In 2024, USDA awarded 34 Powering Affordable Clean Energy (PACE) program projects totaling $917 million for new clean energy and energy storage projects to make it more affordable for rural Americans to use clean, reliable energy to heat and cool their homes, run their businesses, and power their cars, schools, and hospitals. Since the start of the Administration, USDA has invested more than $2.7 billion through the REAP program in 9,901 renewable energy and energy efficiency improvements helping farms and small businesses lower their energy costs, generate new income, and strengthen the resilience of their operations.

DOE awarded over $457 million for 93 projects across Tribal Nations and communities nationwide to accelerate clean energy deployment in rural and remote areas across the country through the BIL Energy Improvements in Rural or Remote Areas (ERA) Program. DOE awarded up to $475 million in March 2024 for five projects in Arizona, Kentucky, Nevada, Pennsylvania, and West Virginia to accelerate clean energy deployment on current and former mine lands. The selected projects cover a range of clean energy technologies, from solar, microgrids, and pumped storage hydropower to geothermal and battery energy storage systems.

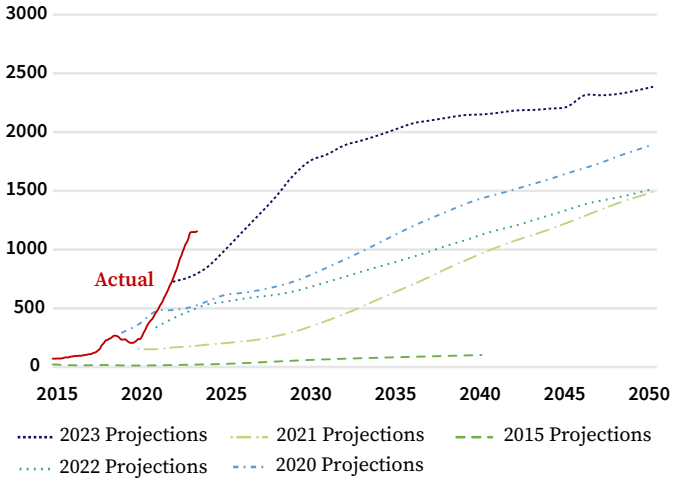
Incentivizing and Supporting Deployment of Clean Vehicles: UST issued guidance for all vehicle tax credits—including 30D, 25E, 45W, and 30C. In 2024, more than 300,000 Americans claimed the IRA's EV tax credits—either $7,500 off a qualified new electric vehicle or up to $4,000 off a qualified used electric vehicle. In total, these taxpayers saved about $2 billion, and nearly all buyers claimed the incentive at the point of sale.

DOE awarded over $5 billion in federal investments for nearly 40 projects to boost domestic production of materials critical to advance national and economic security goals. This includes advanced batteries, battery materials, and battery recycling, catalyzing an additional $11 billion in private capital. In August 2024, Cirba Solutions officially opened its expanded battery recycling plant in Lancaster, Ohio. The expansion includes two new processing lines and at full scale, the Ohio recycling plant will be able to churn out enough battery-grade metal salts to power 250,000 new electric-vehicle batteries every year. The grant funding is complemented by loans from DOE's Loan Program Office that has closed approximately $5.5 billion of battery-related loans, with another $22 billion in projects reaching conditional commitments.

Since President Biden took office, EV sales have more than quadrupled, with more than 5 million EVs now on the road, and the national network of publicly accessible chargers more than doubled—with over 206,000 chargers available—putting the country ahead of schedule to achieve the President's goal of 500,000 publicly available chargers by 2030. When President Biden took office, only 38 percent of the most heavily trafficked corridors had fast chargers at least every 50 miles. Four years later, families can travel 60 percent of the most heavily trafficked corridors and expect a fast charger at least every 50 miles, allowing them to plan road trips without worrying about where they needed to stop for their next charge. For example, a family can drive from Boston to Washington, DC, with access to a fast charger every 50 miles along I-95, or from Pittsburgh, Pennsylvania, to Chicago, Illinois, with access to a fast charger every 50 miles. By the end of 2025, 70 percent of corridors are expected to be covered.

Annual EV Sales Projections Over Time

Thousands of units sold per year



Sources: U.S. Energy Information Administration, Argonne National Laboratory.
Note: Projections from EIA Annual Energy Outlook. Actuals from ANL Light Duty Electric Drive Sales Monthly Sales Updates, shown as a rolling 12-month sum to account for seasonality. As of June 26, 2024.

The Administration awarded $4.4 billion in NEVI and CFI funding for EV charging, which will help to accelerate the pace of new chargers all across the country. Projects underway are expected to add nearly 25,000 federally funded EV charging ports across the country. In addition, in October 2024, DOE's Loan Programs Office announced a conditional commitment to EVGo for up to more than $1 billion to deploy about 7,500 additional EV charging ports. Hundreds of federally funded chargers are operational today, with thousands expected in 2026 and hundreds of thousands funded with federal dollars anticipated by the end of the decade.

Incentivizing and Supporting Development and Use of Cleaner Transportation Fuels: UST issued guidance for both the 40B and 45Z tax credits for producers of clean transportation and aviation fuels. DOT awarded $291 million in funding for 36 projects in 23 states to support the development and use of sustainable aviation fuels and reduce emissions in aviation.

Expanding America's Leadership in Industrial Decarbonization and Carbon Management: DOE selected more than 30 projects across 20 states for up to $6 billion in BIL and IRA funding to advance first-of-a-kind commercial-scale solutions for many difficult-to-decarbonize industries. These projects are expected to increase U.S. competitiveness and maintain tens of thousands of jobs while reducing the equivalent of more than 14 million metric tons of carbon dioxide (CO2) emissions each year—equivalent to the annual emissions of three million gasoline-powered cars. In addition, $4.5 billion was made available, with $700 million selected for award negotiations, to fund carbon capture and storage. DOE funded 25 projects in 17 states to build out infrastructure to store CO2 in geologic storage, expanding CO2 storage capacity by over 3.3 billion metric tons of CO2 over 30 years. This significantly reduced emissions from industrial operations and power plants, as well as from legacy emissions in the atmosphere.

Investing in Clean Hydrogen: DOE announced $8.3 billion for projects that supported a clean hydrogen economy, including up to $7 billion for seven Regional Clean Hydrogen Hubs, which will catalyze billions of dollars in private investment and create tens of thousands of good-paying jobs. Collectively, the hubs aim to produce more than millions of metric tons of clean hydrogen per year, getting us closer to the 2030 U.S. clean hydrogen production goal. Based on DOE analysis, the hubs are expected to eliminate 25 million metric tons of CO2 emissions from end uses each year—an amount roughly equivalent to the combined annual emissions of over 5.5 million gasoline-powered cars.

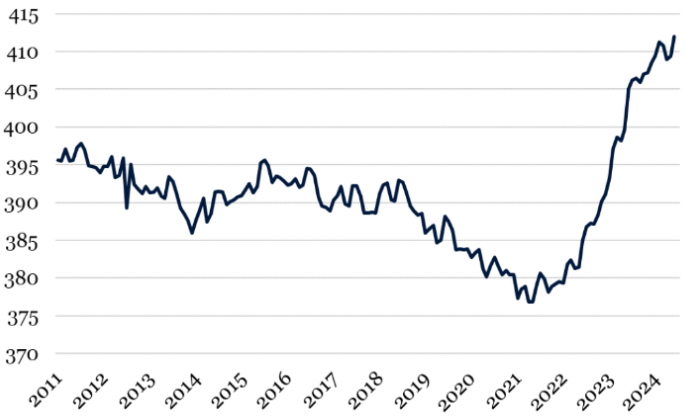
Making Homes and Buildings Cleaner and More Efficient: DOE awarded approximately $13.5 billion in formula and competitive funding for about 1,320 projects that lowered energy costs and increased efficiency through upgrades to homes, businesses, schools, and nonprofits. DOE awarded about $250 million in funding for 98 energy conservation and clean energy projects at federal facilities across the United States. DOE also made significant progress implementing the $8.8 billion Home Energy Rebates programs, which supported states, territories, and Tribes by putting money directly into the hands of American households. Fifty-one states and territories applied to DOE for early administrative or full program funding, and 32 states and territories applied to DOE for full funding to launch their programs. These states and territories applied for $5.3 billion in funding, and 10 states and the District of Columbia launched programs. In total, the IRA Home Energy Rebates are expected to save consumers up to $1 billion annually in energy costs and support an estimated 50,000 U.S. jobs in residential construction, manufacturing, and other sectors.[50] In addition, in 2023, 3.4 million Americans

Spotlight: Industrial Demonstrations – Wieland North America Recycling ($270 million)

Wieland North America Recycling was awarded up to $270 million in funding to build an Advanced Copper Recycling Facility in Shelbyville, Kentucky. This endeavor aims to significantly reduce carbon emissions, potentially establishing the lowest carbon footprint globally for high-end copper applications, and create as many as 200 permanent jobs through the phases of its development, fostering sustainable economic growth within the community.

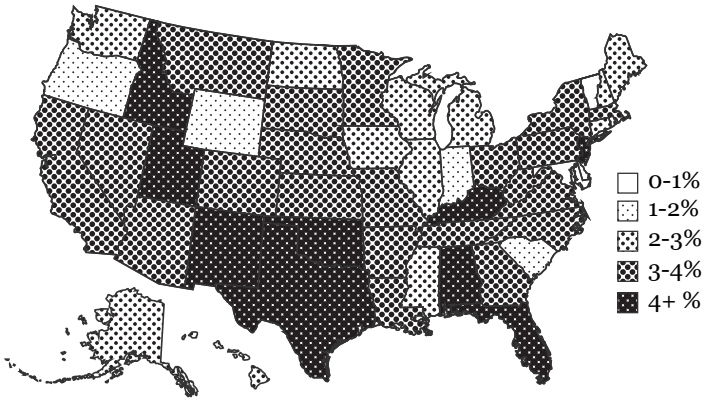
50 "Home Energy Rebates Programs", Department of Energy,

Employment in power generation and supply
Thousands



Source: QCEW
As of December 5, 2024 at 10:00 am.

Growth in clean energy jobs by state in 2023



Source: U.S. Department of Energy

benefited from $8.4 billion in IRA tax credits to lower the cost of clean energy and energy efficiency upgrades in their homes—significantly outpacing projections of the popularity of the tax credits in just the first year they were available.[51] HUD also obligated more than $1.4 billion in grants and loans to housing providers in 42 states, the District of Columbia, and Puerto Rico, making over 30,000 affordable rental homes across the country greener, healthier, and safer. These programs are saving consumers money while making American homes cleaner and more efficient; for example, households that install efficient heat pumps and improve building efficiency using the credits are expected to save between $600 and $3,100 per year after installation, based on the type of heating and cooling system being replaced.[52]

Leveraging the Federal Government to Catalyze Clean Energy Jobs and Cut Costs and Pollution: President Biden signed Executive Order 14057 on Catalyzing Clean Energy Jobs Through Federal Sustainability in December 2021. Less than 14 months later, using more than $12 billion in funding from the IRA and BIL, the Administration launched what are now thousands of projects that cut GHG emissions from federal operations by 38 percent from 2008 levels. This put the U.S. Government over halfway to the President's goal of a 65 percent emissions reduction from federal operations by 2030. The Administration ordered nearly 82,000 zero-emissions vehicles (ZEVs) for the federal fleet and installed 10,500 charging ports at federal facilities nationwide, with an additional 52,500 charging ports in progress. By leveraging an investment of $3 billion from the IRA, the U.S. Postal Service committed to acquiring 100 percent electric delivery trucks by 2026—the first of which are already rolling through neighborhoods.

Through engagement with energy suppliers across 36 states, the Administration developed a clean electricity procurement pipeline that moved the federal government from its current 40 percent clean electricity match to 70 percent by 2027 - on its way to 100 percent by 2030. Projects ae completed or initiated to bring 2,700 federal buildings to net-zero emissions, covering over 40 million square feet.

The Biden-Harris Administration also catalyzed America's clean manufacturing industry by deploying nearly $4.5 billion in IRA funding under the Federal Buy Clean Initiative to use American-made low-carbon steel, concrete, asphalt, and glass in federal infrastructure projects. Since 2023, the General Services Administration (GSA) incorporated Buy

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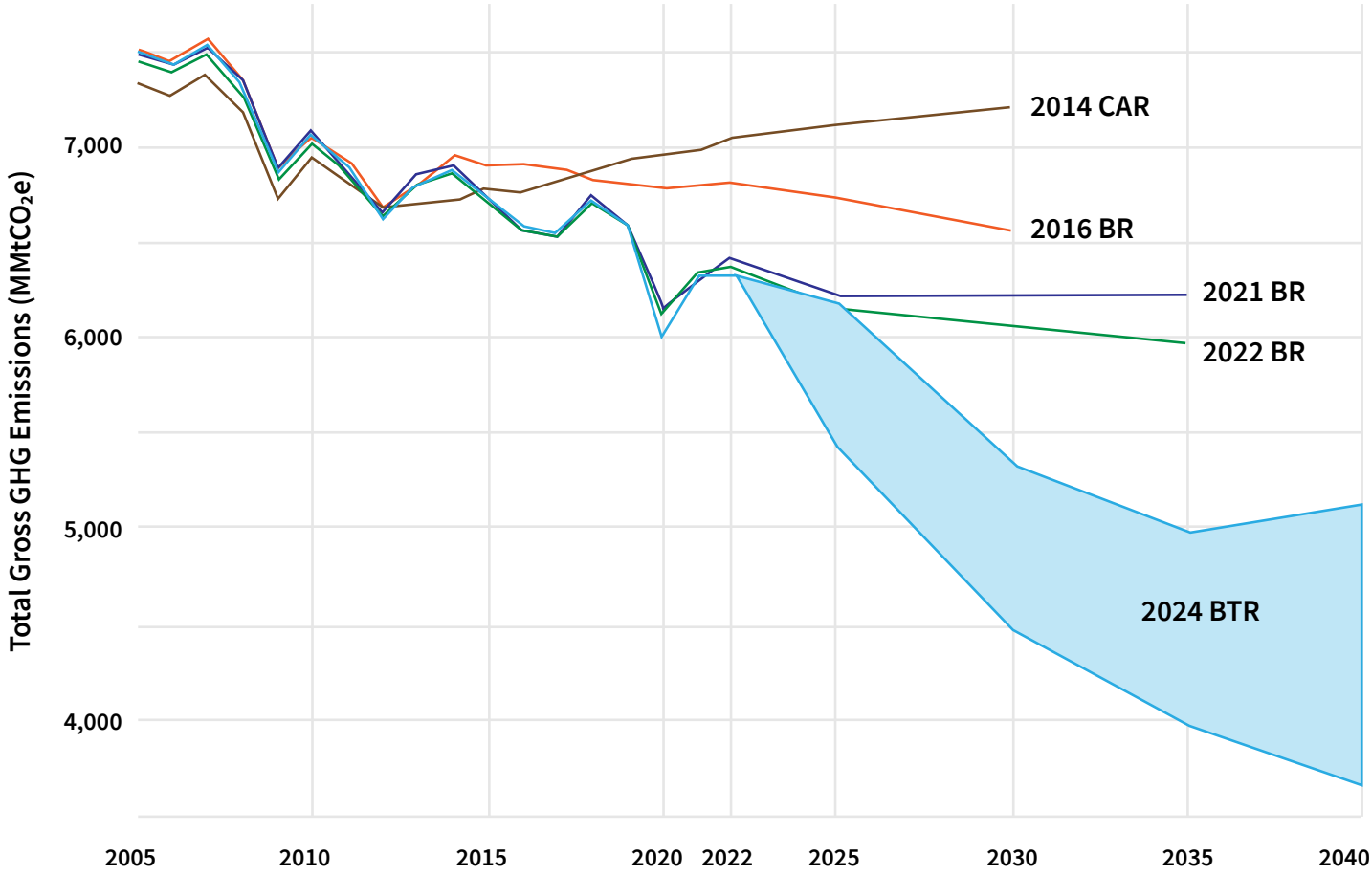
2024, https://www.energy.gov/scep/home-energy-rebates-programs.

51 "SOI tax stats - Clean energy tax credit statistics", Internal Revenue Service, August 2024, https://www.irs.gov/statistics/soi-tax-stats-clean-energy-tax-credit-statistics.

52 *The Inflation Reduction Act: saving American households money while reducing climate change and air pollution.* (2024, December 23). U.S. Department of The Treasury. https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-saving-american-households-money-while-reducing-climate-change-and-air-pollution.

U.S. Greenhouse Gas Emissions Projections – Current and Past Modeling. U.S. is now on track for up to 46 percent emissions reduction by 2030



The blue wedge shows projections based on policies in place as of 2024, estimating up to a 46% reduction in U.S. net greenhouse gas emissions below 2005 levels—as reported in the 2024 U.S. Biennial Transparency Report . In comparison, the "2022 BR" trendline shows prior projections based on policies in place as of November 2021, before the passage of the Inflation Reduction Act and Bipartisan Infrastructure Law. The "2021 BR" trendline reflects policies in place as of 2020, the "2016 BR" trendline reflects policies in place as of 2015, and the "2014 CAR" trendline reflects policies in place as of 2012.

Clean requirements in the construction specifications for more than 150 federal building and infrastructure projects. Manufacturers responded by publishing over 23,800 new environmental product declarations for low-carbon construction materials, demonstrating that the industry reacted to market demand for materials made with lower emissions. The 150 GSA-led projects are expected to support an estimated 6,000 jobs per year across the U.S. during construction and generate $2.7 billion in GDP. A complementary EPA grant program awarded $160 million from the IRA to help manufacturers develop and verify additional environmental product declarations. Further, DOT awarded $1.2 billion in grants to 39 state DOTs to purchase American-made low-carbon construction materials.

Looking Forward

Investments from BIL and IRA will continue modernizing the American energy system for years in the future. DOE announced over $66 billion of $85 billion in BIL and IRA grant funding. A remaining $4 billion was made available in funding announcements, with $15 billion still available to be announced. This funding is already enhancing the nation's energy security, lowering energy costs for American households and

businesses, driving clean energy innovation, improving human health, and mitigating climate change, while creating good-paying jobs and new economic opportunities.

The Administration made available all but one of the 24 clean energy tax incentives extended, modified, or created by the IRA. Additional rulemaking was required for the 45U Existing Nuclear credit created by the IRA and the 179D Commercial Clean Buildings deduction, which predated the IRA and was modified by the law.

Overall, President Biden's Investing in America agenda has been a game-changer for delivering on climate action and has greatly accelerated the pace of emissions reductions going forward. Because of these investments, working in tandem with other actions taken during the Biden-Harris Administration, the United States is now on track to reduce GHG emissions by as much as 46 percent in 2030—more than double the emissions reductions expected based on policies in place in 2020.[53] Additionally, the IRA is projected to produce more than $5 trillion in global economic benefits from reduced climate pollution between now and 2050. External analysis indicates that for every ton of carbon pollution saved in the United States, these investments will also save up to 2.9 tons of carbon pollution outside our borders, while helping to bring down the costs of clean energy globally.[54]

In the coming years, the work started by this Administration is expected to deliver the following benefits and milestones:

- Hundreds of thousands of clean energy jobs will be created in the coming years, based on private investment announcements since President Biden signed the IRA, including high-paying construction and manufacturing jobs to make batteries, electric vehicles, solar and wind components, and other clean technologies.
- Thousands of federally funded chargers are expected to be operational in 2026, with hundreds of thousands anticipated by the end of the decade.
- Investments from the Grid Resilience State and Tribal Grant Program are expected to help build out and upgrade more than 4,375 miles of new transmission lines by 2031, more than 11 times the number of miles developed in 2021.
- By 2030, the IRA and Infrastructure Law are expected to reduce emissions in 2030 by about 1 gigaton—10x more climate benefit than any other legislation in history.
- Over the next seven years, we expect to deploy twice as much wind, solar, and battery storage as we would have without the IRA.
- Because of this, the U.S. is expected to surpass 80 percent clean power by 2030, in line with the President's goal of 100 percent carbon pollution-free electricity by 2035.

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53 United States of America, "2024 U.S. Biennial Transparency Report," *United Nations Framework Convention on Climate Change*, (2024, December), https://unfccc.int/sites/default/files/resource/2024%20U.S.%20Biennial%20Transparency%20Report.pdf.

54 *New U.S. Department of the Treasury Analysis on Inflation Reduction Act benefits.* (2024, December 23). U.S. Department of the Treasury. https://home.treasury.gov/news/press-releases/jy2148#:~:text=The%20Treasury%20officials%20and%20staff,the%20analysis%20is%20available%20here.

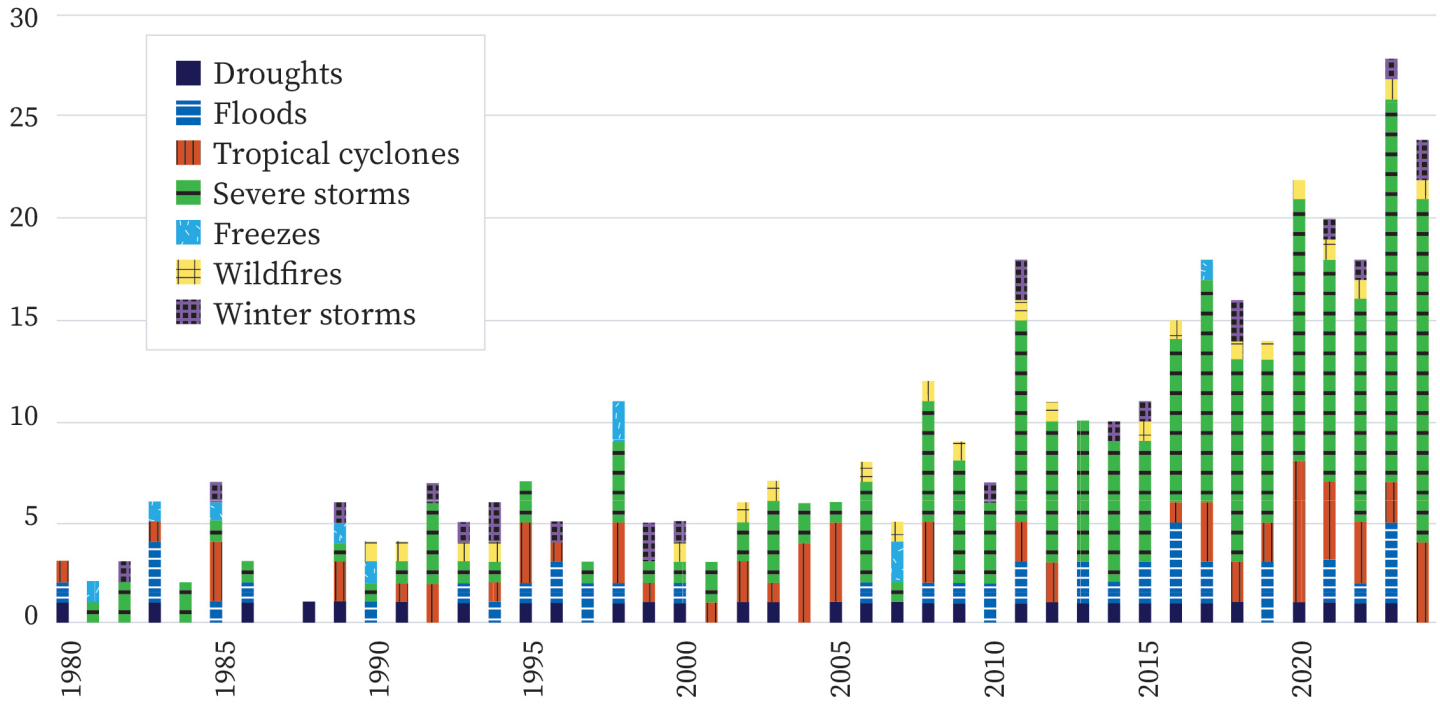
Across the country, Americans have experienced the devastating impacts of climate change with increasing severity and frequency. In 2024 alone, there were at least 28 separate climate disasters that totaled at least $1 billion each in damages, tied in scale with 2023.[55] These acute disasters threatening American communities included storms and hurricanes, floods, wildfires, drought, and extreme heat. The longer-term effects of climate change—including sea-level rise, hotter average temperatures, changing precipitation patterns, and more—are affecting every corner of society and every community in America. For example, climate change drove widespread drought across much of the West in recent years. In particular, the Colorado River Basin—which provided water for more than 40 million Americans—has experienced a historic drought since 2000 that threatened both water and power delivery for farmers, businesses, and communities across the Southwest.[56]

When President Biden took office, he knew that America's infrastructure and communities needed to be prepared for increasing climate changes. Investing in resilience presents a critical opportunity to strengthen communities and bolster the nation's economy. For example, one DOE study found that power outages cost the U.S. economy up to $150

55 Billion-Dollar Weather and Climate Disasters", National Oceanic and Atmospheric Administration, November 1, 2024, https://www.ncei.noaa.gov/access/billions/.

56 "Colorado River Drought Contingency Plan", NOAA, https://www.drought.gov/colorado-river-drought-contingency-plan.

Number of billion-dollar natural disasters in the United States, 1980-2024
Number of billion-dollar natural disasters



Source: NCEI 2024.
Note: Disaster costs are adjusted for inflation using the Consumer Price Index for All Urban Consumers.
As of November 1, 2024.

billion annually.[57] Infrastructure built to withstand disasters before they strike would save lives, reduce the costs of recovery, and ensure critical supply chains and industries could continue driving the economy forward.

Our Approach

BIL and IRA together made the largest investment in climate resilience in American history—over $50 billion in funding to address the impacts of climate change on communities and ensure they were prepared for the climate threats they would face in the future. The Administration also established a National Climate Resilience Framework to advance locally tailored, community-driven climate resilience strategies.

The Biden-Harris Administration took an "all-hazards" approach to resilience, tackling the broad set of different risks that faced infrastructure and communities, including storms, floods, fire, extreme temperature, and drought, as well as man-made threats like cyberattacks. Resilience programs funded through President Biden's Investing in America agenda each focused on addressing one or more of these hazards.

All-Hazards Resilience: Some programs through BIL and IRA provided flexible funding to meet a range of hazards. BIL invested $1 billion through the Federal Emergency Management Agency's (FEMA) Building Resilient Infrastructure and Communities program for a wide variety of community-level resilience projects, from upgrading stormwater infrastructure to building green infrastructure to reduce urban heat. Similarly, the Safeguarding Tomorrow Revolving Loan Fund (STORM) program provided $500 million in grants to states to capitalize revolving loan programs that issued loans to local resilience projects. In addition, ARP's SLFRF provided flexible funding to state and local governments that could be used for resilience projects.

Lastly, IRA invested $1.5 billion in the Urban and Community Forestry Program—the only federal program dedicated to enhancing and expanding the nation's urban forest resources to build resilience to climate impacts such as extreme heat while also creating healthier communities.

Flooding: BIL invested over $7 billion in dedicated funding to help communities build resilience to flood-related disasters. This included $3.5 billion through the FEMA Flood Mitigation Assistance program, which provided competitive grants for community-level flood protection projects. USACE also received $2.5 billion through BIL for the Inland Flood Risk Management program, to directly build flood protection projects. In addition to these dedicated flood mitigation programs, the National Oceanic and Atmospheric Administration (NOAA) received $3.8 billion through BIL and IRA for programs to improve coastal resilience, including protecting against storms and flooding, as well as restoring coastal and aquatic ecosystems.

Drought: BIL and the IRA together invested $15.4 billion through the DOI to tackle historic drought in the West. This funding included $8.3 billion from BIL for water recycling, conservation and storage, aging infrastructure upgrades, and desalination. IRA provided an additional $4.6 billion in flexible-purpose funding to conserve water in systems like the Colorado River Basin that experienced long-term drought. Finally, BIL provided $2.5 billion through the Indian Water Rights Settlement Completion Fund for Tribal water projects.

Wildland Fire: BIL and IRA invested roughly $10 billion to tackle the nation's growing wildfire challenges. This primarily included funding to mitigate wildfire risk in forests through methods such as removing hazardous fuel material, creating fuel breaks, and initiating prescribed fires. Wildfires posed the greatest threat of spreading into communities where developed land met unoccupied land, known as the wildland-urban interface. IRA provided $1.8 billion for hazardous fuels reduction at the wildland-urban interface, and the BIL Community Wildfire Defense Grants program provided $1 billion to at-risk communities for wildfire mitigation projects. Finally, BIL invested $600 million to bolster the federal wildland firefighter workforce, which was critical to carrying out this wildfire management work.

Transportation Resilience: BIL established the Promot-

57 "The Smart Grid: An Introduction", Department of Energy, https://www.energy.gov/sites/prod/files/oeprod/DocumentsandMedia/DOE_SG_Book_Single_Pages%281%29.pdf.

ing Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) program at the DOT, providing $8.7 billion over five years to increase the resilience of the transportation system. PROTECT provided funding for evacuation routes, coastal resilience, hardening infrastructure, and efforts to relocate infrastructure to locations not continuously impacted by extreme weather and natural disasters.

BIL also incorporated resilience considerations into existing transportation programs through improvements to the National Highway Performance Program, Surface Transportation Block Grant Program, and the Federal Highway Administration's (FHWA) Emergency Relief Program.

Tribal Climate Resilience: Tribes were often at the frontlines of climate change, prompting the Biden-Harris Administration to invest dedicated funding for Tribal climate resilience. The Tribal Climate Resilience Annual Awards Program was part of a nearly $560 million investment for Tribal climate resilience programs through DOI's Bureau of Indian Affairs (BIA), funded through BIL, IRA, and annual appropriations. In addition to Tribal Climate Resilience, the Administration launched a Voluntary Community-Driven Relocation Program with over $130 million from the Investing in America agenda to help Tribes relocate in the face of severe climate impacts.

Our Record

Across all climate hazards, the Biden-Harris Administration deployed this funding to build resilience nationwide. The Administration announced nearly $35 billion for approximately 7,000 projects across the country that helped communities prepare for and respond to the impacts of climate change.

All-Hazards Resilience: The Administration awarded $600 million through FEMA's Building Resilient Infrastructure and Communities program for nearly 1,000 resilience projects. In addition, it awarded $200 million through the Safeguarding Tomorrow Revolving Loan Fund program to establish new resilience revolving loan programs in 13 states.

In 2023, the Urban and Community Forestry Program selected 385 grant proposals from entities working to increase equitable access to trees and the benefits they provided, supporting communities in becoming more resilient to climate change and combatting extreme heat. The funding was granted to entities in all 50 states, two U.S. territories, three U.S.-affiliated Pacific islands, and several Tribes. States also leveraged hundreds of millions of dollars through ARP for resilience-focused projects. For example, Florida invested $550 million from ARP in the Resilient Florida Grant Program, which provided funding for community resilience planning and securing critical transportation and water infrastructure against hazards like storms, sea level rise, and floods.

Flood: The Administration awarded roughly $5 billion in dedicated funding for flood mitigation projects through the FEMA Flood Mitigation Assistance program and Army Corps of Engineers flood control projects. These projects include elevating or relocat-

Spotlight: Fargo-Moorhead Metro Flood Diversion Project, MN and ND ($437 million)

The Fargo-Moorhead flood project will protect the cities of Fargo, ND, and Moorhead, MN, from the significant risk of catastrophic floods along the Red River of the North that would inundate large parts of the metropolitan area

The project funded and executed by the USACE and local partners, is building a 30-mile flood diversion channel and a 22-mile dam with large, gated control structures to significantly reduce the risk of flooding. It will create up to 1,000 construction jobs.

The $3 billion project is on track to be operational in spring 2027, and will protect nearly 270,000 residents from flooding.

Spotlight: B.F. Sisk Dam Raise and Reservoir Expansion, CA ($210M)

The B.F. Sisk Dam, located in California's Central Valley, has received over $210 million to fortify and expand the dam's reservoir by 130,000 acre-feet, making it the largest addition of surface water storage currently underway in the country.

Construction is underway, and the project will support the water supply for two million people and over one million acres of farmland in the region.

ing homes so that they are out of reach of flood levels, upgrading community-level stormwater management systems, and larger-scale projects to address the sources of repeated flooding. For example, FEMA awarded BIL funding to elevate or relocate 3,500 homes and buildings out of reach of flooding.

NOAA also announced $2.8 billion in funding through its coastal resilience programs to strengthen ecosystems and communities along the coasts. For example, NOAA's $575 million Climate Resilience Regional Challenge program made awards to 19 collaborative projects throughout Alaska, Hawaii, the east and west coasts, and the Great Lakes to increase the resilience of coastal communities to extreme weather and other climate impacts, including sea level rise and drought. This program was also the most oversubscribed program in the IRA, underscoring communities' eagerness to ensure their resilience in the face of climate change.

In addition to delivering dedicated flood mitigation funding, the Administration took action to ensure all its infrastructure projects were designed to last in the face of increased flood risk. On Day One, President Biden signed an executive order re-establishing the Federal Flood Risk Management Standard, which directed federal agencies to take specific steps to protect federally funded infrastructure projects from future flood risk. This standard was implemented by agencies including FEMA, which issued a final rule in July 2024 to apply the standard to its projects.

Drought: The Administration awarded approximately $10 billion for over 900 drought mitigation projects across western states through BIL and IRA. These projects are helping to conserve and reuse water, upgrade aging water infrastructure, and improve communities' ability to store and transport water. Once completed, these awarded projects are expected to collectively conserve 4.7 million acre-feet of water, a volume larger than Lake Michigan.

Much of this effort aimed to tackle historic drought conditions in the Colorado River Basin in the Southwestern U.S., which caused reservoir levels to reach record lows in 2022. In response, the Administration leveraged federal funding and worked closely with the seven Basin states, Tribes, and water users to secure water use reductions. In March 2024, following years of groundwork, the Administration finalized a historic agreement with these stakeholders to conserve at least 3 million acre-feet of water in the Basin through the end of 2026.

Wildland Fire: Through BIL and IRA wildfire programs, the Administration treated over 18 million acres of forest land to remove hazardous fuel material and reduce wildfire risk. Through the Community Wildfire Defense Grant program, USDA awarded $467 million to 259 project proposals across 36 states and 18 Tribes, which will assist with planning for and mitigating wildfire risks, and has recently made another $200 million available. Through the IRA and other appropriations, the Forest Service invested nearly $544 million in 63 projects in 2024 to conserve more than half-a-million acres of private forestlands across the U.S., ensuring that these places will remain working forests while protecting water sources and reducing wildfire risk. In addition, funding through BIL provided crucial temporary pay supplements salaries for over 20,000 wildland firefighters who risked their lives to do this work. These pay supplements helped to retain the federal wildland firefighter workforce

and better recognize their critical role in protecting Americans from dangerous wildfires.

Transportation Resilience: The Administration announced $6.6 billion in PROTECT formula and discretionary funding. The $830 million in discretionary awards were made to 80 projects nationwide that are supporting resilience planning, surface transportation resilience improvements, evacuation route development, and improving the resilience of at-risk coastal infrastructure. This includes projects like the $60 million awarded to the Oglala Sioux Tribe in South Dakota to improve the road that crosses the Pine Ridge Indian Reservation. The project will widen ditches, increase the size and number of culverts, raise sections of the road, and add shoulders for emergencies and evacuations.

Tribal Climate Resilience: Through the Tribal Climate Resilience Program, DOI awarded $623 million in BIL and IRA funding for over 240 projects to help Tribes prepare for climate impacts. This included projects to fortify communities against disasters as well as to restore critical ecosystems, such as fish hatcheries, that Tribes rely on. Through one voluntary community-driven relocation award, the Native Village of Napakiak in Alaska, began moving its critical infrastructure to safer ground in the face of severe erosion and flooding of the river the community is built around.

Looking Forward

The Biden-Harris Administration has made critical investments to build the nation's resilience to the increasing impacts of climate change. These projects are already delivering real-world benefits and are strengthening communities nationwide against future disasters. As these projects are completed, thousands of communities will be better prepared to withstand the next disaster. Coastal areas often hit by hurricanes will have upgraded storm drainage systems to prevent flooding and will have fortified critical infrastructure that can withstand high winds. Communities affected by the historic drought in the West will be able to rely on new infrastructure designed to conserve water. Communities located on the borders of forests will have decreased wildfire risk. These investments will save lives and reduce the damage and economic cost of climate disasters.

Many of the BIL and IRA resilience programs were designed to distribute funding over five years and still have over $13 billion to be announced in the coming years. The projects that have been launched to date, along with the additional funding still to be awarded, are expected to achieve the following milestones going forward:

- Individual home-level projects funded through the Flood Mitigation Assistance program will elevate or relocate over 3,500 homes and buildings away from floodwaters.
- Projects funded by the Bureau of Reclamation are expected to conserve 4.7 million acre-feet of water in the West when completed.
- DOI and USDA will treat an estimated 4.5 million more acres of forest land by 2028 to mitigate wildfires.

Addressing Legacy Pollution

President Biden and Vice President Harris believe that every person has a right to breathe clean air, drink clean water, and live in a healthy community – regardless of their zip code. But for too long, many communities across the country have faced persistent environmental injustice through toxic legacy pollution and other disproportionate environmental harms. People are forced to live near contamination from previous industrial activity or ongoing sources of pollution, harming the public health and weakening our communities. A clean environment free of legacy pollution is key to creating thriving communities and achieving President Biden's vision of building a strong economy from the middle out and the bottom up.

Highly polluted Superfund and brownfield sites are often located within or adjacent to communities and expose residents to harmful contaminants. These sites are left behind by a range of prior industrial facilities and can span many acres, making the land unusable without full remediation. At the start of the Biden-Harris Administration, 49 designated Superfund sites had not received funding to start cleanups.

Millions of Americans live within just one mile of an orphaned oil and gas well.[58] These wells used to pump oil and gas from underground, but have since been abandoned without adequate cleanup. Orphaned wells are environmental hazards that contaminate water and lands, emit noxious gases like methane that pollute communities, fuel climate change, and litter the landscape with rusted and dangerous equipment.

Similarly, communities once powered by the coal industry are now polluted by abandoned coal mines, which leach toxic discharge into lands and waterways, cause land subsidence and structural issues, and fuel underground mine fires.[59] Tens of thousands of acres of abandoned mine land problems continue to pollute and harm communities nationwide.[60]

Our Approach

To tackle this issue, BIL dedicated an historic $21 billion across several programs to clean up major sources of legacy pollution and advance environmental justice. These programs are designed to right past injustices and secure a clean environment for overburdened communities, while creating good-paying jobs in cleaning up legacy pollution.

Superfund and Brownfields: BIL invested $3.5 billion to clean up Superfund sites and $1.5 billion for polluted brownfield sites through the EPA. The Superfund Program, designates contaminated Superfund sites where there is no clear responsible party and remediates those sites using federal funding. The Brownfields Program, makes grants to communities, states, and local governments for site assessment and cleanup, as well as non-competitive funding to states and Tribes. Brownfield cleanups are typically smaller scale projects and often facilitate economic development activity on the remediated site, helping revitalize communities. The program also supports local job training programs in environmental remediation.

Orphaned Wells: BIL invested $4.7 billion through the DOI to plug and remediate orphaned oil and gas wells. The majority of the funding – $4.3 billion – is delivered to states to support their orphaned well programs. In addition, $250 million goes to federal agencies to plug orphaned wells on federal lands, and $150 million is dedicated to projects on Tribal lands.

Abandoned Mine Lands: BIL provided $11.3 billion over 15 years to remediate abandoned coal mine lands through DOI. The program delivers funding annually as formula allotments to the 22 eligible states and the Navajo Nation to augment and support their state Abandoned Mine Lands (AML) programs. This

58 "Orphaned Wells", U.S. Department of the Interior, https://www.doi.gov/orphanedwells.

59 "e-AMLIS Priority 1 and 2", U.S. Department of the Interior, https://www.osmre.gov/programs/e-amlis-priority-1-and-2-problem-types.

60 "Abandoned Mine Land Inventory System", Department of the Interior, https://www.osmre.gov/programs/e-amlis.

Spotlight: Philadelphia Clearview Landfill Superfund Project, PA ($22 million)

The Clearview Landfill Superfund site in Philadelphia's Eastwick neighborhood operated until the 1970s and contaminated the surrounding area with the municipal and hospital wastes disposed there. Harmful chemicals including PFAS "forever chemicals" leached into the groundwater and the nearby Darby Creek.

After decades of community advocacy, the Superfund cleanup received $22 million through BIL. The cleanup project has now been completed a year ahead of scheduled thanks to this funding, and will ensure cleaner water and a cleaner environment for the community.

funding, which is enabling DOI and state partners to reclaim the majority of the current AML inventory, is used to address a range of issues at abandoned coal mines, including acid mine drainage pollution, underground mine fires, flooding, land subsidence, and other structural hazards. The historic investment of AML funds is also supporting job creation – including for current or former coal workers - in coal communities as well as new recreation and tourism opportunities on formerly mined lands.

Our Record

The Biden-Harris Administration deployed funding across these programs to clean up legacy pollution and build healthy communities, announcing $8.9 billion for over 1,200 projects nationwide. This funding is driving cleanup projects that are underway nationwide and is providing good-paying jobs, many of them union jobs, in the communities impacted by legacy pollution.

Superfund and Brownfields: The Administration awarded all $3.5 billion in Superfund cleanup funding provided in BIL. With the first tranche of this funding, the EPA fully cleared the long-standing backlog of 49 previously unfunded Superfund sites, finally providing the resources to move cleanup efforts forward at these sites. With the remaining funding, EPA added new sites to the Superfund list and provided funding for their cleanup, ultimately funding 95 previously unfunded Superfund site cleanups and accelerating cleanup at dozens of others. The Brownfields Program made over 800 awards totaling $820 million to help clean up and redevelop brownfield sites and create job training programs in environmental remediation. The Administration completed cleanups at 23 Superfund sites and 95 brownfield sites.

Orphaned Wells: The Administration announced $2.3 billion in funding to plug orphaned wells nationwide. This funding has already been used to plug over 9,600 orphaned wells, eliminating methane emissions equivalent to 155,000 metric tons of CO2. Many of these orphaned wells were spewing pollution in close proximity to communities, including in front yards, near schools, or in communities' green spaces.[61] In addition, orphaned well cleanups have restored 558 acres of natural habitat, including for endangered species like the Little Brown Bat in Ohio, which is valuable for agriculture and beneficial to local farmers.

Abandoned Mine Lands: The Administration awarded $2.2 billion in BIL funding to states to remediate abandoned coal mines. During the Biden-Harris Administration, funding programs have enabled the elimination of roughly 1,700 AML problems and the reclamation of over 7,500 acres of AML. This work is also creating good-paying jobs, many of them union jobs, and offering economic opportunity to revitalize former coal communities.

61 "Plugging Away: Documenting the Impacts of the Investing in America Agenda and Orphaned Well Clean Up Across the Country", Department of the Interior, May 1, 2024, https://storymaps.arcgis.com/stories/5b479532e1f74356b0a84c764c5ddf34.

Spotlight: Union Jobs in Legacy Pollution Cleanup

Howard Concrete Pumping Co. is a multigeneration family-owned small business based in Pittsburgh. Projects funded by the AML program provided the largest growth opportunity the company had seen. The company has been able to put its team of union tradesman to work in addressing dangerous abandoned mines. The team is now working on several mine land remediation projects across Pennsylvania, Ohio, and the Midwest.

Looking Forward

The investments made by the Biden-Harris Administration will continue to bring direct economic and environmental gains to communities and relieve the burden of legacy pollution for many years to come. Thanks to this work, thousands of communities will no longer need to worry that nearby abandoned infrastructure or contaminated sites are polluting their land, air, or water. Cleaning up pollution will also create opportunity for economic development on previously contaminated sites, and will create good jobs in environmental remediation.

The Administration announced $8.9 billion in legacy pollution investments through BIL, with $12.1 billion remaining to be announced. The majority of the remaining funding will be distributed annually to eligible states and the Navajo Nation through the Abandoned Mine Lands program, which was designed in statute to award its funding annually over 15 years.

In the coming years, the work started by this Administration is expected to deliver the following benefits and milestones:

- The funding announced to date will help plug over 17,000 orphaned wells through 2030.
- By the end of 2026, EPA aims to reach the following milestones: bring human exposure under control at a total of 60 Superfund sites, complete 225 Superfund cleanup projects that address lead as a contaminant, and clean up a total of 650 brownfield properties since 2021.
- The funding distributed through the AML program over the next 15 years will ultimately be sufficient to remediate the vast majority of the nation's abandoned mine lands.

Reviving America's Semiconductor Industry

Semiconductors, commonly known as "chips" are the physical foundation of nearly all electronic goods and services that drive modern life. These tiny chips power virtually every sector of the economy—including energy, health care, agriculture, consumer electronics, manufacturing, defense, and transportation. The research and development of chips kept America at the forefront of innovation and a skilled workforce – influencing technological developments that underpinned our economy.

The outsized impact of chips on citizens' daily lives became acutely known during the COVID-19 pandemic. A spike in global demand for products that rely on chips, coupled with temporary closures of factories and disruptions to supply chains, led to a shortage of chips that limited the production of goods we rely on—from personal vehicles, medical devices, and appliances, to specialized technology. These shortages revealed the fragility of the global semiconductor supply chain. It also disrupted the workforce—for example, U.S. autoworkers faced furloughs and factories shut down due to pandemic-driven disruptions in Asian semiconductor facilities, contributing to large increases in the price of cars and everyday goods for U.S. consumers.[62]

The United States invented the semiconductor, and used to lead the world in global semiconductor manufacturing. But in recent decades, the U.S. lost its edge—our share of global semiconductor production has fallen from 37 percent to closer to 10 percent over the last 30 years—and we produced none of the most advanced chips.[63] When President Biden took office, he was determined to change this dynamic and ensure that not only did we not suffer from the shortages seen during the pandemic, but that America reclaimed its role as a global leader in semiconductor manufacturing. The work of the Investing in America agenda aimed to ensure that after decades of sending jobs and critical manufacturing overseas, we bring these industries back home and reinvest in the American worker to protect our future.

Our Approach

Given the challenge identified and the President's aspiration, in February 2021, President Biden ordered a 100-day review under Executive Order 14017 to assess risks in the semiconductor supply chain and outline recommendations aimed at addressing those risks. That analysis concluded the United States needed to address risks in its semiconductor supply chain by taking on four related workstreams:

Reshoring U.S. Semiconductor Manufacturing and Supply Chains: Strengthen the domestic semiconductor ecosystem by catalyzing private investment through federal financial assistance to construct, expand, or modernize semiconductor-related and supply chain facilities.

Creating Jobs and Workforce Pipelines for American Workers: Build a skilled, diverse, and accessible talent pipeline for jobs in the semiconductor industry through significant investments in workforce development and empowerment. A talented workforce is essential to the future growth and technological progress of the U.S. industry.

Protecting National Security and Working with Allies and Partners: Engage with international allies on semiconductor supply chain resilience by encouraging foreign investments in the United States and other partner regions to provide a diverse supplier base, pursuing research and development (R&D) partnerships, and harmonizing policies to address national security concerns.

Investing in Research and Development: Advance the development of semiconductor technologies to enhance the competitiveness of the U.S. semiconductor industry through developing foundational technologies of the future, accelerating ideas to market, and contributing to new generations of a skilled workforce.

62 Coffin, David, Dixie Downing, Jeff Horowitz, and Greg LaRocca. "The Roadblocks of the COVID-19 Pandemic in the U.S. Automotive Industry." SSRN, July 2022.

63 Raj Varadarajan et al., "Emerging Resilience in the Semiconductor Supply Chain", Semiconductor Industry Association and Boston Consulting Group, May 2024.

Over the next year and a half, the Administration worked to address these issues, culminating in the passage and signing of the CHIPS & Science Act in August 2022. The "CHIPS" portion of the CHIPS and Science Act specifically sought to leverage public investments and incentives to unlock hundreds of billions of dollars in private sector semiconductor investment, including production essential to national defense and critical sectors, while also investing in longer-term research and development.

To do this, the law appropriated $52 billion—$39 billion in incentives for investment in facilities and equipment in the United States, $11 billion to develop a robust domestic R&D ecosystem, $2 billion for a national security microelectronics program, hundreds of millions in workforce funds, and a 25 percent investment tax credit for capital expenses for the manufacturing of semiconductors, semiconductor manufacturing equipment, and wafer production. It also included specific set-asides for supply chain vulnerabilities, such as legacy or foundational chips, which are critical to American auto and defense industries. Through these various channels, it gave DOC, along with the Department of Defense (DOD), Department of State (State), and National Science Foundation (NSF) the anticipated resources necessary to catalyze a mass public-private investment in semiconductor manufacturing, R&D, and talent and workforce.

In determining how best to allocate the approximately $50 billion in funding provided to DOC, the Administration laid out three distinct initiatives:

- Protect U.S. national and economic security by establishing and expanding U.S. production of semiconductors and chips essential to defense and critical manufacturing industries.
- Preserve U.S. leadership in the industries of the future by investing in a robust R&D ecosystem to ensure continued U.S. leadership in emerging technologies.
- Create good-paying jobs and build strong communities to support the growth of a vibrant U.S. semiconductor industry through quality jobs and a diverse workforce.

CHIPS Incentives: Specifically, for the $39 billion dedicated to commercial fabrication facilities (fabs), DOC identified specific objectives, including:

- The U.S. will have at least two new large-scale clusters of leading-edge logic fabs, where clusters are geographically compact areas with multiple commercial-scale fabs owned and operated by one or more companies; a large, diverse, and skilled workforce; nearby suppliers; R&D facilities; utilities; and specialized infrastructure.
- The U.S. will be home to multiple high-volume advanced packaging facilities.
- U.S.-based fabs will produce high-volume leading-edge dynamic random-access memory (DRAM) chips on economically competitive terms.
- The U.S. will have increased its production capacity for the current-generation and mature-node chips most vital to U.S. economic and national security.

R&D Programs: To enhance R&D in the U.S., DOC established the National Semiconductor Technology Center (NSTC), DOD launched a Microelectronics Commons Program, and NSF launched programs to invest in the future of the manufacturing workforce. The R&D investments will safeguard the critical investments that incentives are making in our economic and national security by ensuring America stays at the cutting edge far into the future. Each of these programs established complementing missions for research and development across the semiconductor value chain, including:

- Extend U.S. leadership in foundational technologies for future applications and industries and strengthen the U.S. semiconductor manufacturing ecosystem.
- Build and sustain a semiconductor workforce development ecosystem.
- Enable the laboratory-to-fabrication transition of microelectronics innovations in the United States.
- Enable cost-effective exploration of new materials, devices, architectures, and prototyping in domestic facilities to safeguard domestic intellectual property.
- Accelerate ideas to market.

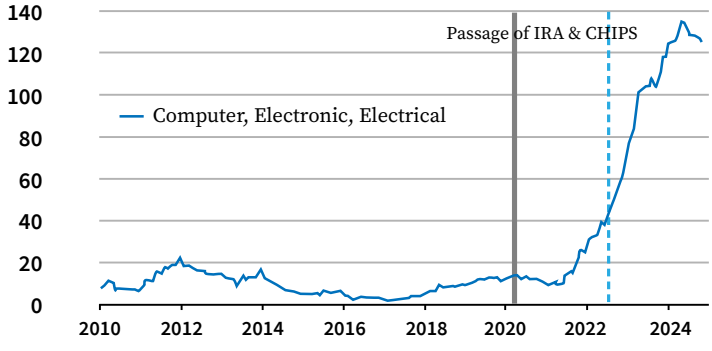
Our Record

As a result of the work undertaken, the Biden-Harris Administration has far surpassed its initial goals for reshoring semiconductor manufacturing and research. The Administration has established five leading-edge clusters in Arizona; Ohio; New York; Texas, and Oregon. We have established America as the only major economy in the world to have all five of the most advanced semiconductor companies operating here—no other economy has more than two. We have launched a nonprofit and a set of hubs that will catalyze research and development for years to come, and laid a roadmap for investing hundreds of millions of dollars in the workforce to support new chip manufacturing needs. After decades of stagnation, the program has reversed the decline of domestic semiconductor manufacturing and will bring 19 new high-volume fabs online by 2030 – double the number built over the past two decades combined. We have already seen facilities start to open and will continue to see more by the end of the decade – building a near-full supply chain on our shores from material processing to chip fabrication and advanced packaging. All these efforts have driven more investment in electronics manufacturing in four years in the United States than had been invested in the previous 25 years combined.

CHIPS Incentives: The U.S. is on track to revive a robust American semiconductor ecosystem – ensuring more chips are made in America by American workers. DOC's CHIPS Incentives program allocated more than $35 billion in incentives funding and finalized incentives for over $33 billion in direct funding for companies across 22 states, driving nearly $450 billion dollars in total investments, which will create over 125,000 construction and manufacturing jobs across the semiconductor manufacturing supply chain. To date, the CHIPS incentives program alone will bring 17 new U.S. fabs and 8 new supply chain and advanced packaging facilities. For the first time ever, 4nm leading-edge logic semiconductors are being produced on American soil – marking the first time leading-edge chips have been domestically produced in over a decade. These investments are compounded by this Administration's 48D Advanced Manufacturing Investment Credit, which will provide up to a 25 percent tax incentive for qualified investments – continuing to encourage investments in U.S. economic security and prosperity.

Inflation-adjusted spending on manufacturing construction, by type

Billions of 2023 Dollars at an annual rate



Sources: Census; BLS; CEA calculations
Note: Deflated using the PPI Final Demand Construction for Private Capital Investment
As of December 2, 2024 at 8:30 am.

The United States is now expected to have a diversity of technology that we have not had in decades. CHIPS investments are also supporting multiple downstream investments in critical advanced packaging capabilities and upstream investments in silicon wafers that are foundational to modern semiconductor manufacturing. As a result, creating end-to-end supply chains to strengthen new semiconductor clusters across the country.

To support the U.S. semiconductor ecosystem, the U.S. government has taken additional steps to incentivize the purchase of American-made chips and leverage our existing manufacturing, including a rule which prohibits agencies from procuring or obtaining certain products and services that include semiconductors produced by entities of concern, and guidance to help the federal government – the world's largest buyer – encourage agencies to mitigate the risk posed by undue dependence on foreign manufacturing and limited competition.

Semiconductor supply chain constraints and bottlenecks are a risk not only to the United States but to all of our allies and partners. The CHIPS and Science Act empowers agencies to explore coordination opportunities for trust, transparency, and resiliency with our allies across the globe. The State Department launched the CHIPS Act's International Tech-

nology Security and Innovation (ITSI) Fund, which has thus far partnered with eight countries – Costa Rica, Panama, Vietnam, Indonesia, India, Kenya, the Philippines, and Mexico – to promote semiconductor supply chain development, security, and diversification. Bolstered by U.S.-led platforms such as ITSI, U.S. partners have launched roadmaps for attracting semiconductor suppliers that can complement new manufacturing investments in the United States. Additionally, DOC announced that the Indo-Pacific Economic Framework for Prosperity (IPEF) Agreement Relating to Supply Chain Resilience entered into force on February 24, 2024. This agreement with 13 diverse partner countries across the Indo-Pacific, led by the United States, is ensuring a more resilient, efficient, and sustainable supply chain for semiconductors and other industries.

To protect our technological advantage, the DOC continues to assess and update export control policies, including protections on key types of semiconductor-related technologies to the People's Republic of China (PRC). The Administration has finalized rules to implement the national security guardrails laid out in CHIPS Incentives to prevent technology and innovation funded by the program from being misused by entities of concern and protect our industrial ecosystem. In May 2024, the President announced increased Section 301 tariffs on semiconductor imports from China, which were finalized by the U.S. Trade Representative (USTR) in September 2024, as part of the Biden-Harris Administration's efforts to further protect American semiconductor manufacturing and the sustainability of domestic investments. The USTR also launched a Section 301 investigation to examine a broader range of PRC's non-market acts, policies, and practices targeting foundational semiconductors and Silicon Carbide within products for critical industries. These actions will explore the impact of unfair trade practices on the U.S. economy, protect American businesses, and support a healthy domestic industry.

Securing our future also requires building a robust semiconductor industry that invests in our workforce, research, and development. Through the CHIPS Act, DOC is allocating dedicated workforce funds across its investment portfolio to create and expand workforce training programs and wraparound services for both semiconductor fabrication staffing and facility construction. This funding — nearly $300 million of which has been included in preliminary and final awards to date — will start the process of building up the semiconductor ecosystem workforce and maintain the United States' advantage in leading-edge manufacturing. This funding will support recruiting, training, and retaining talent in over 28 facilities across 12 states. Nearly a dozen semiconductor companies are expanding local child care capacity across the country by building new centers, growing home-based facilities, and increasing care access during non-traditional hours. Commerce also launched the Historically Black Colleges and Universities' (HBCU) CHIPS Network to strengthen the pipeline of underrepresented semiconductor talent.

CHIPS Research and Development: The CHIPS R&D program allocated more than $9 billion in funding through four programs – at least $6 billion for the NSTC which is operated by a nonprofit called Natcast; $3 billion for the National Advanced Packaging Manufacturing Program; and the remainder of the funds split across the CHIPS Metrology Program and a CHIPS Manufacturing USA Institute (SMART USA). To date, these programs have announced billions in research initiatives focused on innovation in all parts of the supply chain from leading-edge chips to advanced packaging and sustainable materials. For instance, SMART USA and its planned members span more than 30 states, with more than 150 expected partner entities representing industry, academia, and the full spectrum of supply chain design and manufacturing. Collaborators also include 10 national laboratories, five Manufacturing USA institutes, five economic development agencies, and four trade and union groups. Not only do these initiatives explore critical technologies, they also ensure we continue to be leaders in development and win the future by investing in skilled workers, moonshot technologies, and the advancements needed to stay ahead in critical industries.

To reinforce and extend U.S. leadership in semiconductors, the NSTC reflects a once-in-a-generation opportunity for the U.S. to drive the pact of innovation, set standards, and secure global leadership in semiconductor design and manufacturing. The DOC and Natcast have selected locations for its first three CHIPS for America R&D facilities and has already

Project Spotlight: Midwest Microelectronics Consortium

Supported by the Biden-Harris Administration's ME Commons program, the Midwest Microelectronics Consortium (MMEC) announced the award of five technology development projects with first-year funding of over $31 million and $29 million in cost share - for a total potential project budget of $159 million over the next four years. These projects engage more than 30 MMEC members representing organizations from industry, academia, and government stakeholders to advance domestic microelectronic technology development and deliver solutions to strengthen the US-based supply chain in future technologies needed for our national security. In addition to fueling research and development through the projects, the MMEC is using funding for Workforce Development efforts, estimated at over $2 million, to create a beginning-to-end pipeline of technology, tools, and human resources to place the U.S. at the forefront of microelectronics development and manufacturing.

started funding for targeted research and development projects over the next decade. Joined by 100 committed or signed members, these initial facilities include a prototyping and advanced packaging manufacturing facility, an administrative and design facility, and an extreme ultravioletcenter – each of which will be complemented by affiliated technical centers. The NSTC embodies the bipartisan vision for America's capacity to invent, develop, prototype, and deploy the foundational semiconductor technologies of tomorrow – here in the United States.

CHIPS funds are helping companies build the semiconductors that are essential to our aerospace and defense industries. DOD's Microelectronics Commons Program established eight regional hubs that are working collaboratively with researchers, entrepreneurs, and government leaders to identify and support critical technology advancement that expands America's global leadership in microelectronics. To date, the program has announced nearly $700 million in funding for the hubs and specific projects in six technology areas: secure edge/Internet of Things, electromagnetic warfare, 5G/6G, quantum technology, artificial intelligence hardware, and commercial leap-ahead technologies. These investments complement CHIPS Incentives funds, which also support our national security by increasing the supply of critical technologies for critical defense programs including the F-35 fighter jet program, and everyday applications, from cars to secure Wi-Fi.

The nation's economic and national security depends on our ability to inspire and train the next-generation STEM workforce, unleashing the potential of tomorrow's innovators by investing in their ideas today. The NSF launched its Future of Semiconductors (FuSe) initiative, a $45.6 million investment to conduct frontier research and develop the future microelectronics workforce. FuSe will support collaborative research and education in partnership with industry on cutting-edge research challenges, like domain-specific computing, heterogenous integration, and new materials for energy-efficient, enhanced-performance and sustainable semiconductor-based systems. These investments have already been matched by more than $350 million in commitments from state and local governments, the private sector and philanthropy — accelerating their translation to solutions at speed and scale. Additionally, DOC expects to invest $250 million over 10 years in the NSTC Workforce Center of Excellence (WCoE) which will bring together a variety of stakeholders to develop innovative solutions for the industry's workforce challenges, accelerate best practices, promote good jobs, and strengthen recruitment and training of the next generation of semiconductor researchers, engineers, and technicians. Commerce and NSF also established a partnership to co-invest in the National Network for Microelectronics Education, a $200 million investment spearheaded by the NSF. This National Network will work closely with the NSTC Workforce Center of Excellence to adopt and adapt best practices identified by deep data analysis and industry input. Across these initiatives, we have seen over 80 community colleges across 22 states with new semiconductor programming, over 20 semiconductor companies deploying apprenticeship models, and at least 14 states with new investments in semiconductor workforce development.

Looking Forward

The impacts of this historic charge will be felt over the next decade as investing in our future, catalyzing

innovation, and rebuilding an industry happens over time. These programs support the long-term viability of both today and tomorrow's technology, while ensuring American workers are an integral component every step of the way. We have already seen facilities start to open and will continue to see dozens follow suit by the end of the decade with production to begin in several facilities in early 2025. To supplement these facilities, the CHIPS incentives program has reserved an additional pot of at least $500 million in awards for its second funding opportunity focused on smaller materials, equipment, and chemical companies across the supply chain. This funding opportunity received over 165 concept plans representing over $13 billion in capital expenditures across 30 states – full applications representing $6 billion of these projects were due in July 2024 and final selections are underway.

When President Biden came to office, the U.S. produced zero percent of the world's leading-edge logic chips and zero percent of the world's leading-edge memory DRAM chips. Thanks to his actions, the U.S. is now projected to produce more than 20 percent of the world's leading-edge logic chips by 2030 and approximately 10 percent of its leading-edge memory DRAM chips by 2035.

The NSTC has at least $6 billion from the CHIPS R&D program to continue to invest in the coming years in research and development projects, which is expected to catalyze 5-10x in private sector investment, while building out its flagship locations that will lower costs of research and development for entrepreneurs, small business, companies, and researchers. The NSTC will be a pillar where private and public investments can deliver advances that will open opportunities for American industry, uplift skilled jobs, and secure the innovation to maintain leadership in the industries of tomorrow. DOD and the State Department will continue to support the hubs and partnerships they have established, complementing these larger investments being made by the DOC.

The CHIPS incentives program is expected to have its awardees reach the following milestones in the coming years:

- began commercial production of 4nm leading-edge logic chips at its first fab in Arizona in 2025 and will begin production at its third fab by 2030.
- Micron, the only American leading-edge company to manufacture memory chips, will begin producing at its New York site in 2025 and at its new Idaho facility in 2026.
- Intel, the only American leading-edge company to manufacture logic chips, will open their new fab outside of Chandler, Arizona in 2025 and will collaborate with DOD on the Secure Enclave program to help enhance the resilience of U.S. technological systems.
- Samsung, the only semiconductor company that is a leader in both leading-edge logic and memory chips, will be fully operational at its Texas sites by 2030.
- Amkor, a leading advanced packaging company for AI chips, will begin mass production at its Arizona site by end of 2027.
- SK Hynix, the world's leading producer of high-bandwidth memory chips, will begin mass production at its Indiana facility by the second half of 2028.
- Absolics, producing critical substrates for the semiconductor supply chain, will begin deliveries to customers in 2025 and production capacity in 2027 at its Georgia facility.
- Entegris, a leading supplier of advanced materials and process solutions for the semiconductor industry, will begin operations by 2025 at its facility in Colorado.
- BAE Systems, a trusted foundry for DOD, will complete construction for sites in New Hampshire and New Mexico by 2028.
- RocketLab, one of two companies in the U.S, that specialize in the production of space-grade solar cells, will increase its New Mexico facility's production capacity by 50 percent within 3 years.
- Polar Semiconductor, a now U.S.-owned commercial foundry thanks to the CHIPS and Science Act, will nearly double U.S. production capacity within 2 years.

Increasing Tax Fairness and Modernizing the IRS to Serve All Americans

For many Americans, the IRS represents their most notable touchpoint with the federal government. But for too long, everyday taxpayers contended with long wait times, outdated technology, and hidden fees as they attempted to file their taxes while big corporations and the wealthy have gotten away with dodging theirs. For example, in 2020, 55 of the biggest corporations in America paid $0 in federal income tax on $40 billion in profits, while individual taxpayers faced wait times of nearly 30 minutes when they called the IRS.[64] President Biden and Vice President Harris knew that to build the strongest economy in the world they needed to level the playing field – and that included making the IRS work for Americans. The IRA contained historic investments to increase tax fairness, significantly improve IRS customer service, and create a free program for taxpayers to file their taxes online directly with the IRS—paid for by requiring large corporations to pay more of their fair share.

Our Approach

Thanks to funding and policies in the IRA, the tax code is fairer and the IRS is able to deliver for taxpayers across five primary objectives:

- Improving taxpayer experience
- Modernizing the IRS
- Launching a new Direct File program
- Ensuring wealthy tax cheats pay what they owe
- Requiring large corporations to pay more of their fair share

Improving Taxpayer Experience: Since the passage of the IRA, the IRS focused on delivering new tools, simpler interfaces, and more direct customer service for America's taxpayers. That includes investments in enhancing live assistance—with more customer service representatives manning the IRS's phone lines and increasing staffing and hours at walk-in centers. It means redesigning taxpayer notices so that they are easier to read and understand. And it includes simple innovations like enhanced refund status updates, a call back option, and conversational voice technologies that reduce the burden taxpayers face each filing season.

Modernizing the IRS: The IRA also equipped the IRS with funds to modernize its operating procedures and deliver the same online experienced that Americans expect from all financial institutions. The IRS deployed new technology infrastructure and data analytics to replace-decades old machinery with modern, efficient replacements that save money and increase the level of service the IRS can offer.

Launching a Direct File Program: The IRS also launched a new program to provide a *free*, easy, and secure option for taxpayers to file taxes directly with the IRS online. Direct File has no hidden fees, is available in English and Spanish, and works as well on a smartphone as it does on a tablet or computer. Direct File shows taxpayers the math so they can be sure that their return is accurate, and they are getting their maximum refund.

Ensuring Wealthy Tax Cheats Pay What They Owe: When President Biden took office, years of underfunding made it impossible for the IRS to hold accountable wealthy and big corporate tax cheats, who use complex tax planning techniques to avoid paying what they owe. Now, the IRA has given the IRS the resources it needs to ensure all Americans play by the same rules and pay what they owe.

Making Large Corporations Pay More of Their Fair Share: For too long, large and profitable corporations have been able to pay very little, or even nothing, in federal income taxes—especially after the Trump tax cuts gave them a trillion-dollar windfall. Large corporations used this tax cut to give their executives a $46,000 average raise and enrich their shareholders through increased stock buybacks, while doing noth-

64 Gardner, Matthew, and Steve Wamhoff. Rep. *55 Corporations Paid $0 in Federal Taxes on 2020 Profits*, https://itep.org/55-profitable-corporations-zero-corporate-tax/.

ing for the vast majority of workers.[65] As corporate profits hit record highs, dozens of large, profitable corporations paid exactly zero in federal income taxes.[66] The IRA addressed this by instituting a new 15 percent minimum tax on billion-dollar corporations and imposing a 1 percent surcharge on corporate stock buybacks, to encourage businesses to invest instead of enriching CEOs or funneling profits tax-free to shareholders.

Our Record

In just over two-years, this investment has had incredible impacts.

Improving Taxpayer Experience: During tax filing season in 2024, call centers answered one million more calls than the previous year—and three million more calls than pre-IRA—saving taxpayers 1.4 million hours on hold. Average call wait-times during filing season dropped from 28 minutes pre-IRA to three minutes. The IRS extended its hours at 242 in-person locations, generating more than 11,000 extra service hours for taxpayers.

Launching a Direct File Program: The IRS's Direct File program shattered expectations. In its first year, more than 140,000 taxpayers filed returns using the service—with 90 percent reporting a positive experience with the tool. That amounted to over $90 million in refunds and an estimated $5.6 million in tax preparation fees saved. Building on this success, the number of participating states in the program more than doubled to 25 for the 2026 tax filing season.

Ensuring Wealthy Tax Cheats Pay What They Owe: The IRS has already collected $1.4 billion in past taxes owed from high-income, high-wealth tax cheats—and that's just the beginning. Thanks to the new funding, the IRS launched investigations into 25,000 millionaires who have not filed a tax return since 2017 and is cracking down on high-end techniques like structuring complex partnerships to illegally reduce tax liability or deducting personal use of corporate jets as a business expense. As President Biden and Treasury Secretary Yellen promised, none of these enforcement actions are increasing the audit rate on taxpayers earning under $400,000 or small businesses, relative to historic levels.

Making Large Corporations Pay More of Their Fair Share: The new corporate minimum tax and stock buybacks tax are already in effect and are projected to lower the deficit by hundreds of billions of dollars.

Looking Forward

If implementation continues apace, we expect IRA funding to continue improving taxpayer experience and advancing tax fairness, including:

- IRS announced forthcoming guidance to shut down abusive and illegal complex partnership structuring techniques which is expected to raise $100 billion over the next decade. Through the Direct File program, we anticipate that the IRS will reach agreements with all states or private providers to expand enrollment to low- and middle-income taxpayers across the country.
- The new corporate minimum tax and stock buybacks tax are expected to raise over $300 billion in revenue in the next decade – making the IRA deficit reducing in the long run.

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65 Kennedy, Patrick, Christine Dobridge, Paul Landefeld, and Jacob Mortenson. *The Efficiency-Equity Tradeoff of the Corporate Income Tax: Evidence from the Tax Cuts and Jobs Act*. Working Paper

66 Gardner, Matthew, and Steve Wamhoff. Rep. "*55 Corporations Paid $0 in Federal Taxes on 2020 Profits*," (2021, April 2) https://itep.org/55-profitable-corporations-zero-corporate-tax/.

Bringing Manufacturing Back to America

For decades, manufacturing provided a stable source of good-paying jobs and offered a path to the middle class for tens of millions of American families. Government played a key role in catalyzing the rapid growth of America's manufacturing sector. President Franklin Delano Roosevelt's New Deal invested in airports, hospitals, schools, roads, bridges, and dams all across America, and President Eisenhower oversaw the creation of the U.S. interstate highway system – which together provided the enabling infrastructure for private industry to boom.[67] The federal government invested in research and development so that many of the world's greatest inventions, such as the electronic computer, were conceived here on American soil.

Then, beginning in the early 1980s, the embrace of trickle-down economics led to decades of neglect for American communities that had once served as hotbeds of innovation and industry.[68] Corporations chased low taxes, low wages, and non-union labor. Towns lost anchor employers, resulting in tax revenue dropping and an erosion of local public investment. These trends were exacerbated by the so-called "China Shock," as cheap, government-subsidized imports from China wiped out nearly one million manufacturing jobs in American industrial communities concentrated in the Midwest and the South.[69] Regional inequality ballooned and labor force participation rates decreased, especially for workers without college degrees.[70] While too many communities fell into economic distress, government sat on the sidelines. All the while, competitors like China raced to invest in infrastructure, manufacturing, and emerging technologies.

President Biden came to office with a different vision. The Biden-Harris Administration has made the largest-ever investments to bring back American manufacturing and create renewed opportunity for America's workers – and with it, creating the strongest economy in the world.

Our Approach

President Biden knows that manufacturing is about more than just a factory. Manufacturers serve as community anchors – generating quality job growth, business for Main Streets, and local tax revenue to fund services like schools. President Biden came to office with a goal to bring manufacturing back, focused both on the buying power of the federal government and its ability to influence private actors. Buy American requirements for federal purchases have been the law of the land since 1933, but for too long, past administrations found ways to get around it rather than promote it. President Biden took the opposite approach and since Day One the Administration has worked to make "Made in America" a reality.

The Biden-Harris Administration's manufacturing agenda was guided by several core goals:

- **Help American communities make a comeback,** particularly those that had been left behind by prior administrations.
- **Strengthen America's supply chains** to protect American businesses and consumers from future supply chain disruptions and bring down the costs of key technologies.
- **Secure American leadership in strategic sectors** of the future such as clean energy, semiconductors, and biomanufacturing that will continue to drive economic growth for decades to come – thereby strengthening American national security.

67 Phelps, Hailey. 2021. "When Interstates Paved the Way | Richmond Fed." Accessed January 6, 2025. https://www.richmondfed.org/publications/research/econ_focus/2021/q2-3/economic_history.

68 Brainard, Lael. 2024. "Remarks by National Economic Advisor Lael Brainard on Place-Based Growth: Helping Communities Making a Comeback." The White House. January 22, 2024. https://www.whitehouse.gov/briefing-room/speeches-remarks/2024/01/22/remarks-by-national-economic-advisor-lael-brainard-on-place-based-growth-helping-communities-making-a-comeback/.

69 Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." American Economic Review 103 (6): 2121–68. https://doi.org/10.1257/aer.103.6.2121.

70 Ibid.

President Biden's manufacturing agenda is public-sector enabled but private-sector led. In his first week in office, President Biden signed Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers, establishing the first ever Made in America Office and launched a whole-of-government initiative to support American manufacturing. Then, he secured historic legislation to include these requirements on federal infrastructure projects—and implemented the most robust change to the Buy American Act in almost 70 years to ensure that taxpayer money is supporting workers and manufacturing across America.

The Investing in America agenda identifies areas where private industry needed additional incentives to mobilize the investment necessary to bring manufacturing back to America and position the United States to lead in industries of the future. These investments use strategic government incentives—such as tax credits and grant and loan authorities—to close gaps in the market and spur private investment from the earliest stages of research and development through commercial-scale manufacturing.

The implementation of the Investing in America agenda also included safeguards to drive private investment to left-behind regions. For example, the IRA provides special incentives for manufacturers to invest in brownfield sites or the coal and power plant communities that historically powered the nation. Also under the IRA, new clean energy projects that pay prevailing wages and hire registered apprentices can receive a fivefold increase in their tax credit as well as a bonus credit for using American-made products, providing significant incentives for project developers to create good-paying, family-sustaining jobs and American-made products.

Our Record

President Biden catalyzed a renaissance in American manufacturing. Since the beginning of the Administration, the private sector has announced over $1 trillion in clean energy and manufacturing investments. Altogether, nearly $800 billion has been announced for manufacturing projects, revitalizing American communities, bringing manufacturing back to American soil, and creating more resilient supply chains.

The Made in America Office, worked with agencies to use the tools available, including the strategic use of American manufacturing plans, through phase-ins of domestic content requirements where existing production does not meet Buy America requirements. Establishing clear and consistent criteria with achievable timelines supported an organized demand signal for critical industries. This included broadband, port equipment and infrastructure, water infrastructure components, forgings and castings, shipbuilding, heat pumps, high-speed rail, renewable energy, EV chargers, transformers, and more. These investments have already produced a slew of factories and facilities across the country. For example, Nokia is manufacturing Buy America-compliant fiber-optic products in Kenosha County, Wisconsin, for high-speed Internet investments funded by BIL, creating 200 new jobs.

Many factories are also currently under construction and projected to come online in 2025 and beyond. For example, in Cedartown, Georgia, SolarCycle is investing $400 million in the largest solar panel recycling facility in the country that will process an estimated 25 to 30 percent of domestic retired solar panels in 2030, as well as $344 million in a solar glass plant with an annual capacity of 6 GW, supported by a $64 million 48C Advanced Energy Projects tax credit. These plants are scheduled to be operational in 2025 and 2026 and have already secured partnerships with domestic solar manufacturers. Investments in high-speed rail, including Brightline West will result in 63,000 tons of 100 percent American steel rail, 700,000 concrete rail ties, and 2.2 million tons of ballast, all Made in America. The Buy America requirements for high-speed rail means companies are onshoring manufacturing, and building out new capacity across the country, including a new facility in Horseheads, New York.

While these manufacturing investments are in various stages, there are indicators that President Biden's agenda will continue to benefit American workers and communities for decades to come:

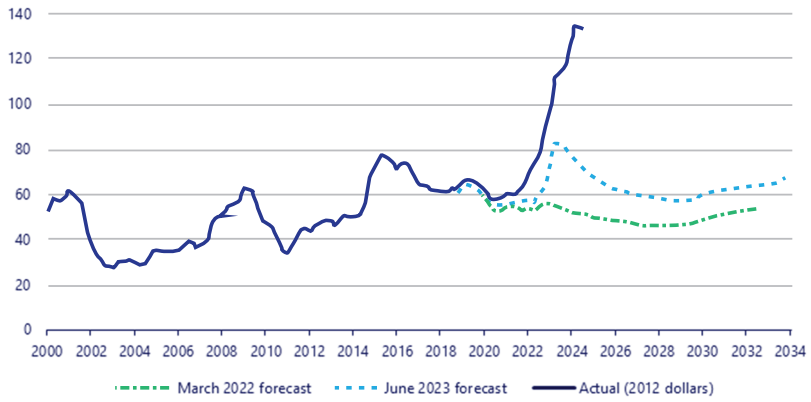
- Investment in manufacturing structures is near an all-time high, having doubled during the Biden-Harris Administration and is contributing to almost one-third of real business investment growth–com-

Announced Private Investment in Strategic Sectors

Dollars

Council of Economic Advisers
Source: Invest.gov
Note: patterned area indicates post-IRA and CHIPS investment.
As of December 11, 2024.

Real U.S. Private Investment in Manufacturing Structures, 2000-2034



Council of Economic Advisers
Sources: Bureau of Economic Analysis; S&P Global Projections
As of November 27, 2024 at 8:30 am.

pared to nearly zero percent of business investment growth over the preceding 50 years.[71]

- Construction employment is at an all-time high.[72]

The Biden-Harris Administration has added nearly 1 million construction jobs.

- Actual public and private investment in clean technology and infrastructure increased 71 percent during the two-year period after the IRA was signed, compared to the two-year period immediately prior.[73]
- The Biden Administration has invested $54 billion in energy communities – power plant and coal communities – while catalyzing $315 billion in announced private investments in these communities.[74] Since President Biden signed the IRA, clean energy investments in energy communities has doubled.[75] Meanwhile, 86 percent of clean investment dollars are flowing to counties with below-average college graduation rates,[76] and 75 percent of private sector clean energy investments have flowed to counties with lower than median household incomes.[77] These results demonstrate the success of President Biden's vision to invest in workers and communities that were left behind by his predecessors.

71 U.S. Bureau of Economic Analysis, Real private fixed investment: Nonresidential: Structures: Manufacturing [C307RX1Q020SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/C307RX1Q020SBEA, January 8, 2025.

72 U.S. Bureau of Labor Statistics, All Employees, Construction [USCONS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/USCONS, January 8, 2025.

73 Ibid.

74 Interagency Working Group on Coal & Power Plant Communities & Economic Revitalization, *"Advancing Economic Diversification in America's Energy Communities,"* (2024, December). https://energycommunities.gov/progress-report-2024/.

75 "Clean Investment Monitor: Tallying the Two-Year Impact of the Inflation Reduction Act." (2024, August 7). https://rhg.com/research/clean-investment-monitor-tallying-the-two-year-impact-of-the-inflation-reduction-act/.

76 Interagency Working Group on Coal & Power Plant Communities & Economic Revitalization, *"Advancing Economic Diversification in America's Energy Communities,"* (2024, December). https://energycommunities.gov/progress-report-2024/.

77 U.S. Department of the Treasury, *"New U.S. Department of the Treasury Analysis Continues to Show Inflation Reduction Act Achieving Key Goal of Driving Investment to Rural, Underserved Communities,"* (2024, March 13). https://home.treasury.gov/news/press-releases/jy2176.

Spotlight: Hickory, North Carolina

Hickory, North Carolina has long been known as the furniture capital of the world—but now the community has a new reputation: the fiber capital of America. Hickory produces about 40 percent of the country's fiber that is used to create high-speed internet lines. CommScope and Corning both operate two of the largest fiber plants in the world in Hickory, where they collectively employ more than 3,000 people. Under the Biden-Harris Administration, manufacturing investment in Hickory has soared. In 2023 – because of the Biden Administration's commitment to Made in America – Corning opened its newest optical cable manufacturing campus in Hickory, adding hundreds of jobs to Corning's existing North Carolina workforce. The campus is part of a series of investments in domestic manufacturing by Corning totaling more than $500 million since 2020. At the same time, unemployment in Hickory dropped from 6.1 percent in January 2021, to 3.3 percent in December 2024.

Looking Forward

President Biden and Vice President Harris came into office with a plan to restore American leadership at home and abroad, and grow the economy from the middle-out and bottom-up. To realize that bold vision, they put in place the Invest in America agenda with a government-enabled, private-sector led approach to bring back American manufacturing. This agenda is producing tangible results for communities, manufacturers, and workers in every corner of the United States. The private sector has already announced over $1 trillion in new investments in clean energy and manufacturing, and many of these investments are just now getting underway. As new factories break ground and cut ribbons over the coming years, communities will continue to see renewed job growth, small business expansion, and tax revenue, helping these communities write their very own great American comeback stories. If future Administrations continue to implement at the pace of the Biden-Harris Administration, the manufacturing agenda will continue to generate economic growth for generations to come – analysts estimate an increase in manufacturing employment by as much as 8 percent.[78]

78 "Taking charge: Manufacturers support growth with active workforce strategies." 2024. Deloitte and The Manufacturing Institute. (2024, April). https://themanufacturinginstitute.org/wp-content/uploads/2024/04/Digital_Skills_Report_April_2024.pdf.

Growing America's Small Businesses

Small businesses and entrepreneurs are engines of the economy and the heart and soul of communities. They account for more than 40 percent of GDP, they create nearly two-thirds of new jobs, and they employ nearly half of all private sector workers.[79] Since Day One, the Biden-Harris Administration prioritized delivering small businesses the support and resources they need to thrive as part of the President's commitment to support a lasting recovery that reached all communities and helped set the stage for building a stronger and fairer economy. From distributing $450 billion in emergency pandemic relief to more than 6 million small businesses and achieving the fastest, strongest, and most equitable recovery of any major economy in the world, to expanding access to capital and leveraging billions in federal dollars from the Investing in America agenda to create opportunities for small businesses, the Administration continued to prioritize support for small businesses and harnessed their dynamism at the center of its agenda to grow the economy from the bottom up and the middle out.

President Biden believes that starting a new small business is an act of hope and confidence in the economy and each of these applications marks the first step in that journey. Small businesses need capital to start up and grow, but access to capital for worthy enterprises can be scarce in underserved areas of the country. This is especially true for venture-style investments, which historically were concentrated in just a few parts of the country. Approximately 70 percent of venture capital investment over the past decade went to just three states—California, New York, and Massachusetts.[80] Venture investors also struggled to reach a diverse set of entrepreneurs. Black-founded companies typically received less than one percent of venture capital funding annually, while women-only-founded businesses typically received just about two percent.[81]

President Biden's Investing in America agenda was designed to power an ongoing small business boom into the future, and to ensure that small businesses and entrepreneurs across all of America can access the resources they need to contribute to and benefit from these historic investments.

Our Approach

President Biden's Investing in America agenda supported small businesses in four key ways:

Expanding Access to Capital: The Biden-Harris Administration put the federal government on track to support $300 billion in loans and equity investments for small businesses by the end of the decade thanks to reforms to the Small Business Administration's (SBA's) traditional 7(a) and 504 lending programs, providing historic new funding to the innovative State Small Business Credit Initiative (SSBCI) through the ARP, and increasing access to the Small Business

79 Daniel Wilmoth, U.S. Small Business Administration Office of Advocacy, *Small Business Facts* "Small Business Job Creation," (April 2022), https://advocacy.sba.gov/wp-content/uploads/2022/04/Small-Business-Job-Creation-Fact-Sheet-Apr2022.pdf; U.S. Small Business Administration Office of Advocacy, *Frequently Asked Questions About Small Business, 2024* (July 23, 2024), https://advocacy.sba.gov/2024/07/23/frequently-asked-questions-about-small-business-2024/.

80 National Venture Capital Association, *2024 NVCA Yearbook* (2024), 20, https://nvca.org/wp-content/uploads/2024/05/2024-NVCA-Yearbook.pdf.

81 McKinsey & Company, "*Underestimated start-up founders: The untapped opportunity*," (2023, June 23), https://www.mckinsey.com/featured-insights/diversity-and-inclusion/underestimated-start-up-founders-the-untapped-opportunity.

Investment Company (SBIC) program. The Biden-Harris Administration provided funding to critical emergency programs that support small businesses like the Restaurant Revitalization Fund, the Paycheck Protection Program, Shuttered Venue Operators Grant (SVOG), and Economic Injury Disaster Loans. In addition, the Administration oversaw implementation of the Emergency Capital Investment Program that Vice President Harris championed as a senator, providing essential funding to Community Development Financial Institutions (CDFI's) that often invest in underserved small businesses.

Making it Easier than Ever for Entrepreneurs and Small Business Owners to Access Support: Many small businesses, especially those from underrepresented communities, lack the access to technical expertise, accountants, and lawyers employed by better resourced businesses. The Biden-Harris Administration helped level the playing field by making historic investments in providing Main Street small businesses with the additional support they need to access federal, state, and local programs that can help them start up and grow. The Biden-Harris Administration achieved this by providing over $400 million in annual funding to technical assistance programs. Further, the Investing in America agenda built on this annual support by establishing the Community Navigator Pilot program at SBA, the Capital Readiness Program at the Minority Business Development Agency (MBDA) – the largest initiative in the over 50-year history of the MBDA, and the Small Business Opportunity Program at the UST. Additionally, BIL permanently authorized the MBDA, expanding and elevating the agency to better help level the playing field for minority-owned businesses, including creating a presidentially appointed and Senate-confirmed Under Secretary of Commerce for Minority Business Development to lead the agency and increasing the MBDA's grant-making capacity.

Leveraging Federal Spending to Support Small Businesses: The infrastructure investments of the Biden-Harris Administration are directly improving the environment for entrepreneurial success. Upgrades to our nation's transportation infrastructure reduce small business shipping delays, and investments in high-speed Internet help small businesses hire remote employees, reach new customers, and improve operations with technology. The Administration's Investing in America agenda has expanded access to tens of billions of dollars' worth of federal, state, and local government contracts, including more than $37 billion of BIL funding directed to disadvantaged businesses through DOT. To supplement historic new semiconductor investments, the CHIPS program has dedicated at least $500 million in awards for smaller materials, equipment, and chemical companies across the supply chain. Because the federal government buys more goods and services than any entity in the world, the Administration also established a goal to increase the share of federal procurement dollars that go to small disadvantaged businesses (SDBs) by 50 percent by the end of 2025. In 2023, the Administration awarded a record-setting $76 billion to these businesses, helping level the playing field and close the racial wealth gap. Additionally, the Biden-Harris Administration improved access for underrepresented small business owners to access federal research and development funding, including through the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR), and strengthened outreach and enhanced technical and business assistance available to these businesses, and advanced policies that expand opportunities for small manufacturers to access federal contracting opportunities. This includes over $50 million through the CHIPS for America SBIR program to level the playing field, give small businesses the resources they need to thrive, and promote competition in the development of commercial technologies.

Leveling the Playing Field for Small Business Owners: The Biden-Harris Administration sought to provide tax relief to millions of entrepreneurs and crack down on the unfair tax schemes that give big corporations a leg up, taking action to ensure that the wealthy and big companies can't get away with not paying the taxes they owe. In 2022, the IRA addressed long-standing IRS funding deficiencies by providing stable, multiyear funding to improve tax compliance and crack down on wealthy and corporate tax cheats, including complex partnerships, large corporations, and executives who don't report income when they use corporate jets for personal use. Additionally, the ARP and IRA helped to provide small businesses with relief from health care costs and the IRA leveled the playing field for small business research and development.

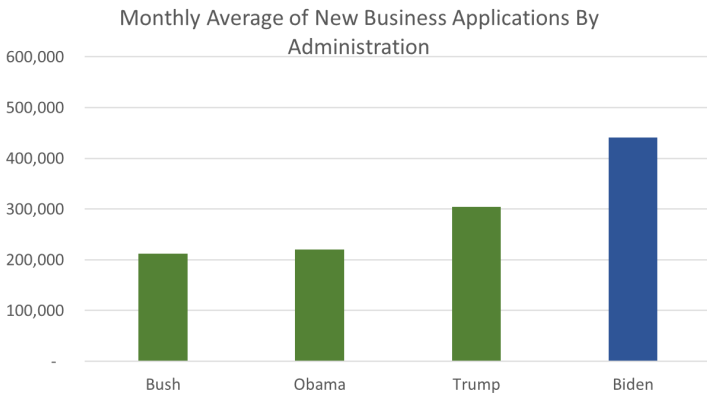
Our Record

The Biden-Harris Administration powered a small business boom across the country. Over 21 million American entrepreneurs filed new business applications since President Biden took office, the most in any single Presidential term history. This boom occurred in communities across the country—with the most new business applications in a single Presidential term in every state.[82]

Over the last four years, entrepreneurs filed an average of over 440,000 applications every month, a rate over 90 percent faster than pre-pandemic averages.[83]

Business ownership has doubled among Black households and hit a 30-year high for Hispanic households; new business creation rates hit a 30-year high for Asian Americans; and women business ownership is on the rise and is currently higher than before the pandemic.[84] Entrepreneurs are thriving across communities, ensuring that small businesses in every corner of the country—rural, suburban, urban, and everywhere in between—have the resources they need to grow and thrive. We have seen historic results across each of the key parts of our small business strategy.

Expanding Access to Capital: Through the ARP's historic expansion of the SSBCI, states, territories, and Tribal governments are leveraging tens of billions of dollars in loans and equity investments to increase access to capital for small businesses. As of September 30, 2024, nearly $1.9 billion in SSBCI funds have been deployed to support credit support and investment programs. SBA backed a record high $56 billion in capital in fiscal year 2024 in the form of over 100,000 loans, surety bond guarantees, and investments - a 50 percent increase over fiscal year 2020. Since fiscal year 2020, SBA has increased lending to underserved businesses including a 3x increase in loans to Black-owned businesses, 2.5x increase in loans to Latino-owned businesses, 2x increase in loans to women-owned businesses, and a 2x increase in small dollar loans (loans of less than $150,000).



Source: US Census Bureau, Business Formation Statistics, July 2004-November 2024

SBA-backed investment funds are also providing equity investment to thousands of businesses. The SBIC program licenses privately managed investment funds to make debt and equity investments in small businesses using SBA-guaranteed funds. Over the course of the Biden-Harris Administration, SBICs deployed over $30 billion in financing to more than 3,100 U.S. small businesses and start-ups. In 2023, financing to women-owned, minority-owned, and veteran-owned small businesses from the SBIC program totaled nearly $670 million, over a 25 percent increase from the year prior. Under the Biden-Harris Administration, the number of jobs supported by underserved small businesses financed by SBICs are estimated to have increased by 75 percent to 35,0000 (between fiscal year 2020 and fiscal year 2023).

The Biden-Harris Administration also sought to strengthen community lenders by investing capital and deepening partnerships, including awarding over $1.7 billion in grants to more than 600 CDFIs across

82 U.S. Census Bureau, Business Formation Statistics, "Time Series / Trend Charts," last accessed on January 10, 2025, https://www.census.gov/econ/currentdata/?programCode=BFS.

83 U.S. Census Bureau, Business Formation Statistics, "Time Series / Trend Charts," last accessed on January 10, 2025, https://www.census.gov/econ/currentdata/?programCode=BFS.

84 *Survey of Consumer Finances, 1989 – 2022*, "Business equity by race or ethnicity," last accessed January 2, 2025, https://www.federalreserve.gov/econres/scf/dataviz/scf/chart/#series:Business_Equity;demographic:racecl4;population:all;units:median; Robert Fairlie, *Indicators of Entrepreneurial Activity: 2023* (January 27, 2024), available at https://bpb-us-e1.wpmucdn.com/sites.ucsc.edu/dist/1/884/files/2024/01/entrepreneurship-indicators-2023_v4-86a1385edc540715.pdf; U.S. Census Bureau, "Census Bureau Releases New Data on Minority-Owned, Veteran-Owned and Women-Owned Businesses," December 19, 2024, https://www.census.gov/newsroom/press-releases/2024/employer-businesses.html and U.S. Census Bureau, "Annual Business Survey Release Provides Data on Minority-Owned, Veteran-Owned and Women-Owned Businesses," January 28, 2021, https://www.census.gov/newsroom/press-releases/2021/annual-business-survey.html.

the country. Based on preliminary analysis, the UST projects these investments may increase lending in Hispanic communities by nearly $58 billion and in Black communities by up to $80 billion over the next decade.[85] Additionally, Vice President Harris launched the Economic Opportunity Coalition, a coalition of private sector companies and foundations working to make historic investments in underserved communities, that has already surpassed over $1 billion in deposits to underserved community finance institutions.

Making it Easier than Ever for Entrepreneurs and Small Business Owners to Access Support: SBA has set records in increased lending to underserved small businesses. SBA made critical reforms to its loan programs in 2023 that supported significant progress in addressing barriers to capital that small business owners face. In fiscal year 2024, SBA made record gains in lending to Black, Latino, Native, Asian American and Pacific Islander, women, and veteran entrepreneurs – including over $1.5 billion in loans to Black-owned and $3 billion to Latino-owned businesses. Total loans to Black-owned businesses doubled under the Biden-Harris Administration, and total loan dollars to Latino-owned businesses increased by over 70 percent.

The Biden-Harris Administration also invested in programs to help small businesses access available federal resources and to help innovative start-ups take on equity investment. The SBA's Small Business Community Navigators Pilot Program was the largest-ever dedicated federal investment to help small business access federal resources. The program, funded by the ARP, delivered training to over 350,000 entrepreneurs and helped secure more than $300 million in approved funding, largely supporting small businesses that had not been reached by existing services. The MBDA's ARP-funded Capital Readiness Program invested in small business incubators and accelerators to help underserved entrepreneurs launch and scale their small businesses, including by preparing them to seek equity capital and connect to venture capital opportunities.

Leveraging Federal Spending to Support Small Businesses: In April 2024, SBA announced the Biden-Harris Administration awarded a record-breaking $178 billion in federal contracts to small businesses in fiscal year 2023, representing an all-time high of 28.4 percent of federal contract dollars. Of these, a record-setting $76 billion, or 12 percent of federal contract dollars, were awarded to SDBs, surpassing the fiscal year 2023 goal and a more than $6 billion increase from fiscal year 2022. Further, the Biden-Harris Administration worked to put small business at the heart of federal research and development opportunities by increasing access to the SBIR and STTR programs. Over the last four years, the SBIR and STTR programs have awarded more than $5.9 billion in contracts and grants to women-owned, minority-owned, and veteran-owned and rural small businesses, representing over a third (34 percent) of all awards.

Federal spending across the Investing in America agenda is being delivered to small businesses and community lenders. The CHIPS Incentives Program received over 165 concept plans for small-scale supply chain projects representing over $13 billion in capital expenditures across 30 states – which will close critical gaps in new manufacturing clusters and catalyze local collaboration. In 2024, the Biden-Harris Administration awarded the first awards from the CHIPS Research and Development Office to 17 small businesses under the SBIR program to fund research to help grow the commercial microelectronics industry and ensure opportunity is within reach for all businesses seeking to be part of the U.S. semiconductor ecosystem. DOT launched a department-wide procurement dashboard to raise awareness of contracting opportunities and provide increased technical assistance through the Office of Small Business and Disadvantaged Business Utilization, which helped increase small business utilization of DOT direct contacts by nearly 17 percent in the first year of the Biden-Harris Administration. To date, DOT has awarded more than $37 billion in federal contracts to small, disadvantaged business contractors. Under EPA's $6 billion Clean Communities Investment Accelerator program, grant recipients are establishing hubs that provide funding and technical assistance to community lenders working in low-income and disadvantaged communities, providing an immediate pathway to deploy projects in those communities

85 U.S. Department of the Treasury, *FACTSHEET: The Treasury Department Advancing Economic Opportunity for Hispanic and Latino Households, Businesses, and Communities* (June 23, 2023).

while also building capacity of hundreds of community lenders to finance projects for years. The community-based lenders helped leverage the skills and talents of small and underserved businesses to spur adoption of clean, distributed solar energy.

Leveling the Playing Field for Small Business Owners: The Biden-Harris Administration continued its commitment to protecting small business owners making under $400,000 a year from tax hikes. Through the IRA, the ARP's expanded premium tax credit for Affordable Care Act plans were extended to 2025, preserving this tax credit support for small business health care costs. The IRA leveled the playing field of research and development for small businesses by doubling the payroll research and development tax credit from $250,000 to $500,000. This credit levels the playing field by enabling small businesses without significant federal income tax liability to still benefit from the R&D tax credit.

Additionally, the Consumer Financial Protection Bureau finalized a rule to increase transparency to small business lending and ensure that small businesses are served fairly by lenders. Under this rule, lenders that originate at least 100 loans annually will be required to collect and report information about the small business credit applications they receive, including geographic and demographic data, lending decisions, and the price of credit. Further, the Federal Trade Commission finalized a rule to ban noncompete agreements that restrict worker mobility from one employer to another and hinder innovation in the marketplace. It is estimated the rule will lead to new business formation growing by 2.7 percent per year, resulting in more than 8,500 additional new businesses created each year.

Looking Forward

Over the next several years, continued growth in entrepreneurship will be boosted by the Biden-Harris Administration's Investing in America agenda, which will continue to provide historic opportunities for entrepreneurs and small businesses across the country. For example, across the remainder of the decade, the SSBCI program will help catalyze tens of billions of dollars in additional capital support for over 100,000 businesses. Additionally, SBA's traditional loan programs are on track to provide more than $250 billion in financing to more than 500,000 small businesses by the end of the decade thanks to the reforms made over the past four years. Further, the Biden-Harris Administration has put the federal government on an upward trajectory to continue setting new records for small business and small disadvantaged business spending on federal contracting opportunities.

Delivering for American Workers and Communities

President Biden's Investing in America agenda provided unprecedented investments in infrastructure, manufacturing, and clean energy. This historic opportunity also presented significant challenges. For decades, American infrastructure projects lagged our international counterparts in terms of scale, cost, and speed.[86] Past efforts to deliver public investment at scale had a history of leaving behind communities of color, rural communities, and Tribal communities. President Biden was determined to implement these historic pieces of legislation both equitably and in a manner that was "on time, on task, and on budget"—deploying funding in a way that would remedy historical wrongs, support American workers, and deliver at the speed that our economy and climate demand.

In order for the Investing in America agenda to deliver for American workers and communities, President Biden prioritized a set of efforts across the agenda. These efforts included:

- Supporting **American workers**
- **Advancing equity** and delivering for all communities
- Increasing **technical assistance** and capacity building offerings
- Building **climate-smart infrastructure**
- Accelerating **permitting timelines**

Supporting American Workers

President Biden often says: "A job is more than a paycheck. It's about dignity." At the core of the President's Investing in America agenda is a mission to put Americans to work in good-paying jobs in industries of the future, like clean energy and advanced manufacturing. In some cases, that meant standing up entirely new industries from scratch—like semiconductor manufacturing and offshore wind.

To ensure America had the skilled domestic workforce to match the opportunities being created in these industries, the Administration set out to provide resources to train Americans for these jobs. At the same time, the President was committed to ensuring that federal funds create good-paying jobs with high-road labor standards, including the free and fair choice to join a union.

To build the workforce needs of the future and support American workers and labor, the Administration took a three-pronged approach to workforce development:

- Expanded high-quality training pathways to connect Americans to good jobs;
- Made place-based workforce investments so every community can meet its foundational and emerging labor needs; and
- Boosted job quality to support recruitment and retention.

Expanding High-Quality Training: Since President Biden took office, the U.S. economy created over 16 million jobs—including 1.6 million in construction and manufacturing. To equip Americans for these jobs and the hundreds of thousands more to come, the Administration significantly expanded high-quality training pathways in high-growth, high-demand industries. It invested more than $730 million to expand Registered Apprenticeships and pre-apprenticeships. President Biden also signed Executive Order 14119, Scaling and Expanding the Use of Registered Apprenticeships in Industries and the Federal Government and Promoting Labor-Management Forums. This action bolstered apprenticeships in the federal workforce and brought back labor-management forums that enhance worker voice in the federal civil service. While the impact of these actions will continue for years to come – we have already seen results helping support the education and training needs of more than 1 million apprentices, and the number of women in apprenticeships surpassed 100,000 for the first time ever.

86 Brooks, Leah, and Zachary D. Liscow. 2023. "Infrastructure Costs." American Economic Journal: Applied Economics 15, no. 2 (April): 1–30.

Spotlight: Coalition for Responsible Community Development and Los Angeles Trade-Technical College ($20 million)

The Coalition for Responsible Community Development and Los Angeles Trade-Technical College received $20 million through the IRA to build environmental justice workforce development trainings for lead abatement, welding, hybrid and electric vehicle maintenance, home weatherization, and residential energy audits.

Through this grant, the project is anticipated to complete lead abatement for more than 600 homes across Southern Los Angeles.

In addition, the Administration expanded access to evidence-based, high-quality career and technical education (CTE) programs, and affordable community college training pathways. The Department of Education launched the first-ever Career-Connected High School grants program, supporting 19 school districts and states in reimagining the high school experience to better connect to career pathways. The Department of Labor (DOL) awarded $200 million in Strengthening Community College grants, supporting quality workforce programs nationwide. The opportunities created by the Investing in America agenda spurred the creation of new high-quality programs. For example, because of the President's CHIPS and Science Act more than 80 community colleges across 22 states created or expanded programming to train semiconductor workers for advanced manufacturing jobs, and 14 states announced new dedicated state funding for workforce development investments to support CHIPS facilities.

Place-Based Investments: To ensure communities could meet the promise of these historic investments, the Administration focused on place-based growth. This included, designating 31 communities across the country as Regional Innovation and Technology Hubs (Tech Hubs), 21 communities as Build Back Better Regional Challenge awardees, and funding 32 coalitions across the country through the Good Jobs Challenge. In addition, ARP enabled state and local areas to make historic investments to attract, train, and retain a skilled, diverse workforce in critical industries. The Good Jobs Challenge alone has already secured good, quality jobs in high demand industries for 10,000 American workers with additional jobs expected to be secured in the next few years.

To complement the funding for workforce training, the Administration, led by First Lady Jill Biden, established nine Investing in America Workforce Hubs. These Hubs forged new partnerships with local governments, employers, unions, educators, and non-governmental organizations to advance workforce training for the industries that were newly arriving in their communities thanks to the Investing in America agenda. For example, as Columbus, Ohio emerged as a center of the semiconductor manufacturing industry, the Administration partnered with local stakeholders to gather commitments, including standing up new semiconductor certificate programs, training 10,000 new skilled construction workers, and quadrupling the number of students trained for engineering technology jobs.

Job Quality: President Biden was proud to be the most pro-union president in American history. He utilized every tool to promote job quality and protect the free and fair choice to join a union. He created the first-ever White House Task Force on Worker Organizing and Empowerment, chaired by Vice President Harris. He fought for prevailing wage and apprenticeship bonus credits for clean energy projects funded through the IRA to ensure clean energy workers are paid good wages and that these projects create equitable pipelines to these good jobs. He directed DOL to update Davis-Bacon prevailing wages for the first time in nearly 40 years—a move that will raise pay for one million construction workers over time. He implemented a new rule requiring Project Labor Agreements on many major federal construction projects over $35 million. And he signed the "Good Jobs" Executive Order (14126), which calls on agencies to embed strong labor standards into their federal funding opportunities—policies to raise wages, protect the free and fair choice to join a union, promote workforce development, prevent discrimination, and ensure workplace safety.

In addition, President Biden took action to protect workers and ensure that they receive the compensation that they have earned. During his first months in office, President Biden signed the Butch Lewis Act as part of the ARP, which saved the pensions of 2 million union workers and retirees. The Administration has already awarded over $70 billion to restore or protect the pensions of over 1.3 million union workers and retirees to ensure they receive the full retirement benefits they have earned for decades to come. Assistance benefiting hundreds of thousands of additional workers and retirees in eligible pension plans will continue over the next two years. As of October 2024, more than 120,000 retirees have already received an average of $13,600 each in earned benefits that would have missed out on without the Butch Lewis Act.[87]

Advancing Equity and Delivering for All Communities

President Biden's Investing in America agenda unlocked billions of dollars in opportunity for states, territories, Tribes, and local governments to make a once-in-a-generation investment in infrastructure, clean energy, and climate resilience. From Day One, the President was focused on building an economy that brought everyone along. According to a 2020 study, only an estimated 8 percent of federal funding flowed to persistent-poverty counties over the preceding three years[88] – President Biden changed that.

The Biden-Harris Administration invested historic sums in communities that for too long were left behind by policymaking. This began with recovery efforts, and the Biden-Harris Administration's unprecedented commitment to helping local communities drive an equitable and durable economic recovery for all their residents by providing direct support in ARP to over 30,000 local governments, including small and rural governments, most of whom had been excluded from prior relief programs. Funds from the BIL, IRA, and CHIPS reached 98 percent of American counties—and over 99 percent of high-poverty counties. Rural counties and high-poverty counties also received an outsized share of funding—about 50 percent more per capita than the average community. These public sector outcomes were echoed in private sector investments as well. For example, overall, 86 percent of clean investment dollars since the IRA passed flowed to counties with below-average college graduation rates—a testament to the success of President Biden's vision to distribute funds to towns, cities, and communities that too often were overlooked by past administrations.[89]

Environmental Justice: During his first week in office, President Biden signed Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities and Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, which estab-

87 U.S. Department of Labor, Employee Benefits Security Administration, *Report on Special Financial Assistance* (November 1, 2024), https://www.dol.gov/sites/dolgov/files/EBSA/laws-and-regulations/laws/arp/sfa-report-on-special-finacial-assistance.pdf.

88 U. S. Government Accountability Office. 2020. "Targeting Federal Funds: Information on Funding to Areas with Persistent or High Poverty | U.S. GAO." July 16, 2020. https://www.gao.gov/products/gao-20-518.

89 Ibid.

lished the Justice40 Initiative. Through the Initiative, the Administration set a goal to deliver 40 percent of the overall benefits of certain federal climate, clean energy, clean transit, affordable and sustainable housing, clean water, and other investments to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution. Over 500 federal programs, including many created or funded by BIL and IRA, were designated as Justice40 programs. The Biden-Harris Administration reached and exceeded the Justice40 goal – overall, 71 percent of the grants, loans, and other investments federal agencies made from Justice40 programs in the Initiative's first two full fiscal years reached or benefitted disadvantaged communities.

The Justice40 Initiative includes $3 billion from the IRA through the EPA to help communities address pollution, increase climate resilience, and build community capacity to address environmental and climate justice challenges. Approximately $2 billion of this funding was provided through the Community Change Grants Program – the single largest investment in environmental justice in history. The Administration awarded $1.6 billion to 105 selectees to advance environmental justice and to strengthen protections for public health and the environment – including by bringing relief from pollution to overburdened communities. The remaining $1 billion in funding was implemented through complementary programs that provided funding to local governments, Tribal governments, grant-makers, and other organizations to support broader environmental justice efforts. The Administration also awarded $600 million to a number of national and regional Environmental Justice Thriving Community Grantmakers that each received $50 million to distribute to local projects, as well as offering technical assistance and capacity building.

Tribal Communities: Since taking office, President Biden and Vice President Harris delivered a record-breaking $45 billion in investments in Indian Country through the Investing in America agenda, transforming infrastructure, expanding health care, advancing education, and addressing systemic and historic injustices. In total, the ARP allocated over $32 billion to Tribes—the largest ever direct investment in Indian Country—while BIL set aside $13 billion for rural infrastructure, and the IRA set aside more than $720 million for Indian Country. As discussed in other sections of this report, these funds are bringing Internet to Tribes and Native communities, replacing every lead pipe on Tribal lands, and making historic investments in transportation, clean energy and health care.

Energy Communities: As the Administration worked to build a clean energy economy, President Biden was also committed to supporting the energy workers and communities that powered our nation for generations. In his first week in office, President Biden launched the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization to ensure that federal investments "revitalize the economies of coal, oil and gas, and power plant communities" that have been left behind. In addition, the IRA included 10 percentage point bonus credits for investments in "Energy Communities" that were historically reliant on fossil fuels for employment, wages, or tax revenue. To help community leaders leverage these opportunities, the Working Group launched on-the-ground technical assistance in seven regions and engaged with nearly 13,000 local community stakeholders and Tribal organizations, including state and local governments, nonprofits, businesses, labor unions, and economic development organizations.

These efforts paid off, the Administration invested $54 billion in energy communities through BIL and IRA, enabling revitalization of retired energy assets, environmental cleanup and extraction of rare earth metals, improved transportation infrastructure, increased access to clean water, expanded high-speed Internet, and training for workers to adapt to changing technologies and retain good-paying and union jobs. Even more, the investments in BIL, IRA, and CHIPS have catalyzed $315 billion in private investments in energy communities since January 2021, representing more than 500 projects, including 415 clean power generation projects that are powering more than 8 million American homes. These investments, will create nearly 80,000 jobs in energy communities in the fields of biomanufacturing, clean energy manufacturing, electric vehicles and batteries, heavy industry, and semiconductors, while indirectly contributing to more than 68,000 additional

jobs. Further, an analysis by UST showed that clean energy investment in energy communities grew by $1.4 billion more per month on average than in other communities following IRA's passage.[90]

Rural Communities: When the President took office, more than 35 percent of rural and Tribal communities lacked wired access to Internet at acceptable speeds.[91] The Administration set out to change that, investing $90 billion across ARP and BIL to make high-speed Internet available to all Americans and to bring down high-speed Internet prices across the board. Similarly, many rural Americans faced high energy and electricity bills. IRA provided more than $12 billion to expand access to clean energy for rural and Tribal communities, make their energy systems more reliable and resilient, and lower their electricity costs. This includes, the Empowering Rural America (New ERA) program, which is the largest investment in rural America's electric system since the Rural Electrification Act of 1936. New ERA has obligated more than $9 billion to help member-owned rural electric cooperatives deliver clean, reliable, and affordable energy.

The President also made strategic investments to help family farms thrive. Through the IRA, the Administration forgave or offset farm loans for more than 47,800 farmers and provided financial assistance to over 43,000 farmers, ranchers, and foresters who previously experienced discrimination in USDA farm loan programs. IRA also supported farmers and ranchers to adopt climate-smart agriculture practices that provide new revenue streams and yield climate change mitigation benefits. The Administration created new and better markets for farmers and ranchers to increase competition, including expanding independent meat and poultry processing capacity. By creating new opportunities for rural communities to compete, the Investing in America agenda is helping ensure the next generation of rural Americans do not have to leave home to make a living.

Every year, USDA's Economic Research Service publishes a report called "Rural America at a Glance." Data from the reports during the Biden-Harris Administration told an encouraging story of transformation in rural communities.92 In 2024, after a decade of overall population loss, people increasingly moved to rural America. Total rural employment also grew from 2022 to 2023, nearly recovering to 2019's pre-pandemic levels. Increasing job opportunities encouraged people of prime working age (25–54 years) to join or rejoin the labor force, and for late-career and retirement-age people to remain in the labor force longer. The 2023 report found the emergence of the clean energy economy as a growing employment sector, with clean energy jobs employing more than 243,000 workers in nonmetropolitan counties in 2021, and the 2024 report showed jobs continued to grow through investments made since.[93, 94]

Increasing Technical Assistance

Equitable investment means not only awarding funds to disadvantaged communities but also ensuring they have the tools to deliver on the opportunity. Historically, too many communities lacked the resources to apply for and deploy transformative federal funding opportunities even if their localities were eligible or even prioritized for funding. To ensure that Investing in America funds were distributed equitably, the Biden-Harris Administration made it a priority to support state, local, Tribal, and territorial governments and other nongovernmental partners navigate, access, and implement federal programs.

To accomplish this goal, the Administration invested in over 100 technical assistance programs that help local communities build capacity and maximize access to available federal funding, including by creating new place-based cohorts with dedicated staff who

90 U.S. Department of the Treasury, *"The Inflation Reduction Act: A Place-Based Analysis, Updates from Q3 and Q4 2023."* (2024, March 12). https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-a-place-based-analysis-updates-from-q3-and-q4-2023.

91 Wheeler, T. (2021, May 14). "*Striking a Deal to Strengthen Broadband Access for All.*" Brookings. https://www.brookings.edu/articles/striking-a-deal-to-strengthen-broadband-access-for-all/.

92 Farrigan, T., Genetin, B., Sanders, A., Pender, J., Thomas, K. L., Winkler, R., Cromartie, J. (2024). *Rural America at a glance* (Report No. EIB-282). U.S. Department of Agriculture, Economic Research Service. https://doi.org/10.32747/2024.8722498.ers.

93 Ibid.

94 Davis, J.C., Cromartie, J., Farrigan, T., Genetin, B., Sanders, A., & Winikoff, J.B. (2023). *Rural America at a glance: 2023 edition* (Report No. EIB-261). U.S. Department of Agriculture, Economic Research Service. https://doi.org/10.32747/2023.8134362.ers.

Spotlight: Tri-County North Delta Community Network

Tunica County, Mississippi is one of three counties within the RPN's Tri-County North Delta Community Network of the RPN. With downturns in the gaming industry over the last two decades coupled with competition from surrounding communities, Tunica County has faced similar challenges that plagued the community prior to the gaming industry's presence, including migration and aging populations. RPN is collaborating with community leaders in Tunica County to make progress on its top priorities, including rehabilitating aging infrastructure, providing affordable housing, and increasing opportunities for diversified workforce development. Since RPN began partnering with Tunica County in 2022, the community has received numerous awards:

- In 2024, Tunica County received a $1 million grant from the U.S. Department of Labor's Workforce Opportunity for Rural Communities to support workforce development efforts. This award was made possible through grant writing assistance by Rural LISC, which has a cooperative agreement with USDA to support RPN communities.
- Tunica County was one of only 15 municipalities chosen to participate nationwide in the International City/County Management Association's 2024 Economic Mobility and Opportunity Peer Learning Cohort and Grant Program, receiving funding to advance local planning, professional development, and support.
- Tunica County was selected for DOT's Thriving Communities program, receiving two years of intensive technical assistance and support in accessing federal funding from BIL.
- These awards and others represent a transformative moment for Tunica County, positioning it to make significant strides in economic mobility, workforce development, and community growth.

provided hands-on support. Two notable examples include the Rural Partners Network (RPN) and the Thriving Communities Network (TCN).

Rural Partners Network: The Administration launched the RPN, a program that brought together 25 federal agencies and regional commissions to help rural community leaders access federal resources, develop infrastructure, and promote long-term economic stability tailored to local needs. RPN communities received support from full-time federal staff who lived and worked locally in 36 rural and Tribal communities across 10 states and Puerto Rico. Since its launch, RPN helped federal agencies deliver over $8.5 billion in funding to these communities. The Administration also launched the Rural.gov platform to help all rural communities navigate federal resources.

Thriving Communities Network: In 2022, the Administration created TCN, a federal interagency effort to coordinate place-based technical assistance and capacity-building resources for urban, rural, and Tribal communities experiencing a history of economic distress and systemic disinvestment. These federal resources included grant and financial management support, pre-development assistance, community engagement, planning, and project delivery support. Through TCN, agencies coordinated and collaborated across specific assistance programs and engaged their regional and field staff, who often served as key points of contact for communities. Similarly, the EPA, in partnership with the DOE, announced the 16 Environmental Justice Thriving Communities Technical Assistance Centers, which received $177 million to help disadvantaged communities across the country. These centers provided training and other assistance to build capacity for navigating federal grant application systems, writing strong grant proposals, and effectively managing grant funding.

The Administration also worked with philanthropy to fill in gaps where the federal government either did not have the funding to support communities or where outside stakeholders could provide better services. For example, Bloomberg Philanthropies, Emerson Collective, Ballmer Group, Ford Foundation, and the Kresge Foundation launched the Local Infrastructure Hub, a national program supported by a $55 million commitment that was designed to ensure that all U.S. cities and towns can access federal infrastructure funding to drive local recovery, improve communities, and deliver results for residents. Similarly, Accelerator for America provided technical assistance and capacity building to help local government and economic development leaders maximize this moment of new investment in infrastructure and climate action. That includes helping more than 40 communities with in-kind support for strategic planning, predevelopment, grant writing, workforce development initiatives, peer learning cohorts, and project delivery innovation—particularly in areas where the federal government is precluded from engaging directly with funding applicants.

Building Climate-Smart Infrastructure

Across the full scope of investments in infrastructure and manufacturing, the Biden-Harris Administration strategically designed programs to ensure that economic growth and environmental sustainability go hand-in-hand. By weaving considerations about climate resilience, pollution reduction, and community benefits into funding opportunities, the Administration led the way on smart-from-the-start investments that not only improve quality of life and catalyze growth in the near term, but deliver inclusive benefits and environmental protection for decades to come.

The results of these actions are already starting to come to fruition. EPA data through 2023 showed the nation's air quality improved in recent years, with levels of key air pollutants such as carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, and volatile organic compounds all decreasing from 2021 to 2023.[95] This continued clean air progress occurred alongside strong GDP growth and an American manufacturing boom, demonstrating how smart pollution standards and intentional investments help the economy grow in a way that delivers health benefits to communities.

Climate Resilience: The Investing in America agenda is rebuilding and reinvesting in the nation's infrastructure in ways that will grow the economy and create good-paying jobs, while also building to high environmental standards that benefit communities and ecosystems. This strategy relies on incentivizing climate-smart infrastructure investments that bake in resilience to extreme weather and other climate change impacts and mitigating air quality concerns arising from these projects.

This strategy can be seen across programs. For example DOT's Mega program awarded funding for a Boston bridge replacement that will help prevent floods and account for sea-level rise; an improved rail corridor on Chicago's South Side that includes resiliency improvements to mitigate flash flooding events; and an interstate improvement project between the Idaho-Montana state border that will provide a resilient natural disaster evacuation route and include erosion control features and wildlife crossings.

Pollution Reduction: The Investing in America agenda is supporting an American manufacturing renaissance that will produce clean energy technologies to tackle the climate crisis, while also ensuring that manufacturing facilities are able to make the necessary upgrades to remain competitive and decrease climate impacts. For example, when awarding their industrial decarbonization grants, DOE took into consideration the extent to which these projects would also reduce other pollutants, waste streams, and manufacturing byproducts that can impact the environment and public health, and made clear the preference for such projects to receive funding was woven into the funding opportunity. As a result, these projects will not only advance American leadership on industrial decarbonization technologies, but also provide healthier environments for nearby communities—85 percent of these projects are expected to directly reduce local air pollution.[96]

Community Benefits: As manufacturing comes back to America, it was important to the Administration that manufacturing communities reaped the economic benefits and were protected against any negative impacts. To help make this a reality, DOE required Community Benefits Plans for nearly all BIL and IRA funding opportunities and loan applications, which provides a comprehensive framework for awardees to meaningfully support justice, equity, security, and resilience through their projects. In August 2024, DOE released a map of all DOE-funded demonstration and deployment projects, with links to Community Benefits Plan summaries, to allow community groups, unions, and other stakeholders to easily find local opportunities and help secure benefits for workers and communities.[97] Similarly, DOC secured commitments

95 U.S. Environmental Protection Agency, "EPA's Annual Air Report Highlights Trends through 2023," August 16, 2024, https://www.epa.gov/newsreleases/epas-annual-air-report-highlights-trends-through-2023.

96 U.S. Department of Energy, "Industrial Demonstrations Program Selected and Awarded Projects," March 2024, https://www.energy.gov/oced/industrial-demonstrations-program-selected-and-awarded-projects.

97 U.S. Department of Energy, "DOE Launches Map Highlighting Benefits to Communities Selected for Biden-Harris Clean Energy Projects," August 15, 2024, https://www.energy.gov/infrastructure/articles/doe-launches-map-highlighting-benefits-com-

from CHIPS award recipients for worker training, worker safety, environmental safeguards, local business benefits, and other community benefit-related provisions, and released a list of the commitments made by the larger companies through Community Impact Reports.

As a wide range of projects recently selected for Investing in America funding begin to deliver on their environmental commitments, communities across the country will benefit from upgraded infrastructure, manufacturing facilities, and clean energy projects built to world-class standards for sustainability. Federal agencies are positioned to continue working with funding recipients to deliver win-wins for the economy and the environment, including through responsible and efficient environmental review processes.

Accelerating Permitting

To deliver on the promise of the Investing in America agenda, the Biden-Harris Administration has taken historic action to accelerate project permitting and environmental reviews, while protecting communities and the environment. Recognizing the historic levels of federal investment and urgency to deliver impacts, the Administration took a series of actions to help ensure that our federal permitting system could move at the speed and scale required.

The Administration has taken a three-pronged approach:

- Invested $1 billion through IRA funds to hire experts and invested in new technologies to expedite reviews.
- Passed reforms to modernize the National Environmental Policy Act (NEPA) for the first time in 50 years and finalized the Bipartisan Permitting Reform Implementation Rule to accelerate the federal environmental review process.
- Used executive and agency authorities, wherever possible, to improve permitting and environmental review processes. By taking these actions, the Administration enabled industry and project sponsors to move forward with key investments while also being responsible stewards of the environment and protecting communities.

Deploying Resources: The Biden-Harris Administration worked quickly to build capacity and provide additional resources to agencies to enable efficient reviews. Recognizing the need to permit more projects, faster, the Biden-Harris Administration secured $1 billion in the IRA that helped agencies hire permitting personnel and upgrade their technology to streamline reviews. These investments have already allowed the Administration to increase the permitting workforce by 14 percent, and we expect that this number will continue to rise in the years to come. In addition, the Permitting Council provided agencies with over $30 million to upgrade their systems and technologies to help them complete more efficient and timely reviews.

Modernizing and Reforming NEPA: In 2023, the Biden-Harris Administration negotiated and secured the first reforms to NEPA in over 50 years through the Fiscal Responsibility Act of 2023. These reforms include a number of improvements and new efficiencies to the federal permitting system which are implemented by the White House Council on Environmental Quality's (CEQ) Bipartisan Permitting Reform Implementation Rule. These efficiencies include setting clear one- and two-year deadlines for agencies to complete environmental reviews, requiring a lead agency and setting specific expectations for lead and cooperating agencies, and creating a unified and coordinated federal review process. The rule also provides agencies with other new and faster tools to improve the efficiency and effectiveness of environmental reviews. Together, these reforms are helping accelerate America's clean energy future, rebuild the nation's infrastructure, strengthen energy security, and deliver on the President's Investing in America agenda.

Actions to Improve Federal Permitting: The Biden-Harris Administration took dozens of executive actions to help accelerate and improve federal permitting across key sectors, including transportation, broadband, critical minerals, transmission, semiconductors, onshore renewables, and offshore wind.

Since the start of the Administration, over 20 federal agencies developed, expanded, or adopted 160 cate-

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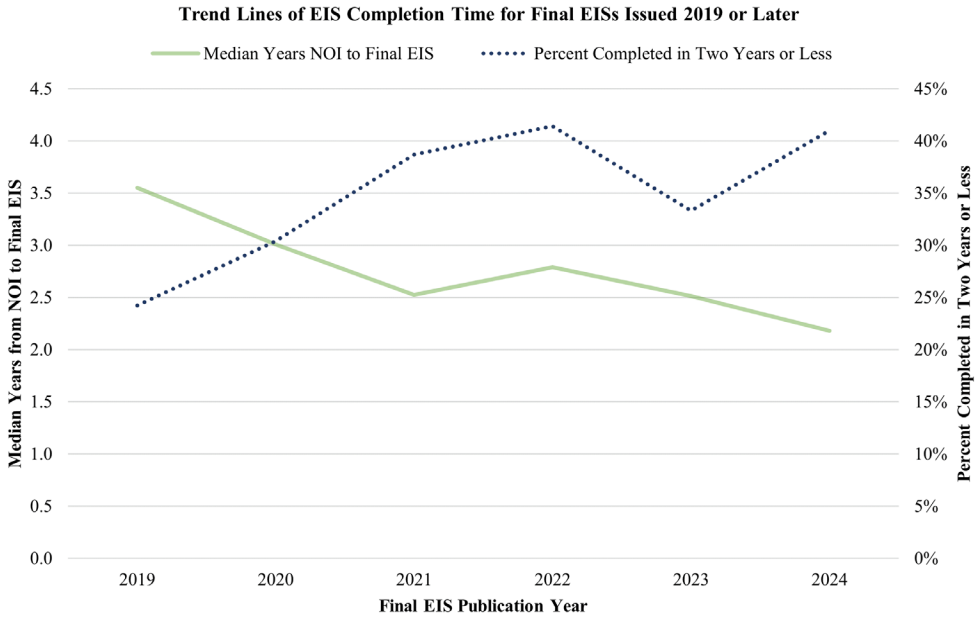

pand the use of tools known as Determination Keys. This effort will allow many endangered species reviews to be completed in less than an hour, instead of the usual 60-day process.

In 2023, the Advisory Council on Historic Preservation (ACHP) finalized a streamlining action to accelerate historic preservation reviews for high-speed Internet projects. Building on this success, in December 2024, the ACHP voted to finalize another streamlining action to identify projects and activities that could benefit from accelerated historic preservation reviews for tens of thousands of transportation, housing, building-mounted solar, and energy efficiency projects over the next two decades. This action will accelerate historic preservation review timelines from months or years in some cases to a matter of days or weeks.

gorical exclusions for projects with insignificant environmental impact in key sectors such as EV charging, broadband, semiconductor manufacturing, clean energy, and transmission. The vast majority of federal projects in the Biden-Harris Administration were advanced through categorical exclusions: 99.5 percent of federal highway projects, 98 percent of DOE projects, 98 percent of NOAA projects, and 94 percent of broadband projects at DOC were covered by categorical exclusions. In recent months, several agencies expanded categorical exclusions. In July 2024, DOT adopted a categorical exclusion from DOE that accelerated projects to fix older, leak-prone natural gas pipelines funded by BIL.

The Biden-Harris Administration also designed and implemented several programmatic reviews for key sectors, including solar, semiconductor manufacturing, and broadband projects. Programmatic reviews help accelerate reviews for projects that agencies can evaluate on a broad scale. For example, the Biden-Harris Administration finalized a programmatic review to expedite reviews of solar projects by steering them to areas close to transmission infrastructure and with low wildlife and land conflicts. The Bureau of Land Management made over 31 million acres of public lands across 11 western states available for solar development, helping to deliver clean power to millions of homes. To expedite endangered species reviews for high-speed Internet projects, DOC partnered with DOI's Fish and Wildlife Services to ex-

The Biden-Harris Administration began implementing the Coordinated Interagency Authorizations and Permits (CITAP) program, which gave transmission developers a standard two-year schedule that could cut prior timeframes in half for the most complex environmental reviews. A recent study found that had CITAP been in place from 2010–2020, it would have saved approximately 66 years in federal permitting time.[98]

The Biden-Harris Administration's actions to reform federal permitting delivered significant results. Data from the CEQ and federal agencies demonstrated that the Administration delivered more projects faster, while being responsible stewards of the environment and protecting communities.

The Biden-Harris Administration cut 8 months off the median time it took for agencies to complete environ-

98 Contextualizing Electric Transmission Permitting: Data from 2010-2020", Clean Air Task Force and the Nikanen Center, March 18, 2024.

Accelerating Permitting Timelines Across Key Industries

Clean Energy & Transmission	The DOE has cut environmental review timelines by half for environmental impact statements compared to the prior Administration. DOE has completed 15 percent more environmental reviews compared to the previous Administration.
Transportation	The DOT has cut by more than one third the average time it takes to complete an environmental assessment. DOT has also completed 20 percent more reviews compared to the prior Administration for projects requiring environmental assessments or environmental impact statements.
Offshore Wind	The Biden-Harris Administration has approved the nation's first 11 commercial-scale offshore wind projects, representing more than 19 gigawatts of total capacity, which is enough to power more than 6 million homes; before President Biden took office there were zero of these projects approved. Because of the Administration's progress on permitting the nation's first offshore wind projects and leasing new areas, the total U.S. offshore wind project pipeline now exceeds 80 gigawatts, enough to power more than 26 million homes if fully developed.
Onshore Renewables	Under the Biden-Harris Administration, the DOI has permitted more than twice as many clean energy projects on public lands than it did under the prior Administration. Because of this progress, the DOI has exceeded the goal to permit 25 gigawatts of clean energy projects on public lands by 2025, with approved projects now totaling more than 33 gigawatts, enough to power more than 15 million homes across the country.
High-Speed Internet	Across the federal government, agencies processed more than twice as many permits for high-speed Internet projects on federal lands and property as they did under the prior Administration.

mental impact statements, the most comprehensive form of environmental review – 23 percent faster than under the previous Administration.[99]

CEQ found that Environmental Impact Statements (EISs) completed between 2021 and 2024 took a median time of 2.4 years to complete from time of the notice of intent (NOI) to the final EIS, with 39 percent completed within 2 years. For final EISs issued in 2024, the median time from NOI to final EIS was 2.2 years and approximately 41 percent of final EISs issued in 2024 were completed in 2 years or less.[100] These figures are significantly improved compared to the period from 2017 to 2020 when the median time was 3.1 years with 27 percent completed within 2 years.[101] We are seeing progress in accelerating permitting timelines across industry sectors that are core to the Investing in America agenda.

99 CEQ Timelines Report, Council on Environmental Quality, January 2025.

100 Note: Many of the projects included in this analysis commenced before the FRA set a 2-year deadline for completing.

101 CEQ Timelines Report, Council on Environmental Quality, January 2025.

Looking ahead, we expect permitting timelines to continue to accelerate thanks to the new executive actions, reforms to NEPA, and historic resources in permitting deployed by the Biden-Harris Administration. Over the past four years, we have demonstrated that we do not need to choose between moving faster or protecting our communities and environment. We can and must do both. We have already made significant progress in cutting permitting timelines across the Administration. We expect this progress will continue thanks to the actions we have implemented over the past four years so that we can deliver at the pace and scale required to realize the promise of the Investing in America agenda.

Conclusion

President Biden's Investing in America agenda has already improved the lives of millions of Americans and has planted the seeds for a better and more prosperous future. These investments aren't just about meeting today's needs, they're anticipating tomorrow's challenges and building the foundation for sustained growth and resilience. Over the next decade, the impact of this historic agenda will be fully realized. Projects that are just beginning construction today will advance clean energy, reduce pollution, modernize airports, railways and ports, and continue to scale and improve the United States' infrastructure. They will fulfill the President's commitments to deliver clean water, connect every household and business to high-speed Internet, and more, all while ensuring no community is left behind.

Through the Investing in America agenda, the foundation has already been built. The work accomplished is a testament to what is possible when we invest in our people and our nation.