



# Economic Report of the President

*Together with*  
The Annual Report  
*of the*  
Council of Economic Advisers

February 2020





# Economic Report of the President

*Together with*  
The Annual Report  
*of the*  
Council of Economic Advisers

February 2020





# Contents

Economic Report of the President . . . . .	1
The Annual Report of the Council of Economic Advisers . . . . .	9
Introduction . . . . .	13

## Part I: The Longest Expansion on Record

Chapter 1: The Great Expansion . . . . .	31
Chapter 2: Economic Growth Benefits Historically Disadvantaged Americans . . . . .	67
Chapter 3: Regulatory Reform Unleashes the Economy . . . . .	105
Chapter 4: Energy: Innovation and Independence . . . . .	137
Chapter 5: Free-Market Healthcare Promotes Choice and Competition . . .	171

## Part II: Evaluating and Addressing Threats to the Expansion

Chapter 6: Evaluating the Risk of Declining Competition . . . . .	199
Chapter 7: Understanding the Opioid Crisis . . . . .	227
Chapter 8: Expanding Affordable Housing . . . . .	267

## Part III: The Economic Outlook

Chapter 9: The Outlook for a Continued Expansion . . . . .	295
References . . . . .	303
Appendix A Report to the President on the Activities of the Council of Economic Advisers During 2019 . . . . .	343
Appendix B Statistical Tables Relating to Income, Employment, and Production . . . . .	355

---

\*For a detailed table of contents of the Council's *Report*, see page 19.



# **Economic Report of the President**





## Economic Report of the President

To the Congress of the United States:

Over the past three years, my Administration has championed policies to restore the United States' economic strength, propelling growth to levels far exceeding preelection expectations. These results did not come about by accident. Instead, they were supported by our foundational pillars for economic growth that put Americans first, including tax cuts, deregulation, energy independence, and trade renegotiation. Our success has created a historically strong labor market and greater economic security for millions of American families.

### *The Transformative Power of Work*

My Administration's focus on economic growth comes from a deep appreciation of the power of work to drive the economy and transform lives. The truth is, jobs do not just provide paychecks; they give people meaning, allow them to engage with their communities, and help them reach their true potential. As we have shown, the right policies offer Americans paths to self-reliance rather than trapping them in reliance on government programs.

The unemployment rate is 3.5 percent, the lowest it has been in 50 years. Since I came into office, labor force participation is up and wages are growing fastest for historically disadvantaged workers, reversing the trends seen under the previous administration. Under my Administration, and for the first time on record, job openings exceeded people looking for work, with 1 million more open jobs than job seekers at the end of 2019. Because of record-low unemployment rates across demographic categories and continued job creation, people from all backgrounds can more easily find work, build their skills, and grow their incomes.

In today's tight labor market, employers realize the vast potential of many individuals whom they may have previously overlooked. This includes those facing long-term unemployment, balancing family responsibilities, thinking they lack necessary job skills, overcoming substance abuse, returning from the justice system, or living in poverty. It is also encouraging those individuals to put themselves back in the workforce. My Administration has placed a special focus on these forgotten Americans because every individual deserves to experience the dignity that comes through work.

In the fourth quarter of 2019, three quarters of workers entering employment came from outside the labor force rather than from unemployment, the highest share in the series' history. As paid parental leave spreads across the country, including the expansion to Federal workers that I signed in December,

parents will have more freedom to choose a balance between working outside the home and caring for their children. And in another encouraging sign that people previously on the sidelines will continue entering the workforce, more than 420 companies have signed the Pledge to America's Workers. These companies have pledged to create upward of 14 million new job and training opportunities for current and future employees over the next five years.

Apprenticeships are one way for these companies to deliver on their pledges, and expanding apprenticeships has been a top priority since I took office. During my presidency, more than 680,000 new apprenticeships have been created. To have a labor market that works for everyone, the Federal Government must encourage a variety of paths for people to get the skills they need to build family-sustaining careers.

Although all sectors benefit from more apprenticeships, my Administration knows that manufacturing is a pillar of the American economy. Manufacturing spurs innovation and fuels economic growth, which is why I am so pleased that more than 500,000 manufacturing jobs have been created since my election. Rather than still shrinking, American manufacturing is now growing again. Critically, wages for nonsupervisory and production workers are rising at an even higher rate than managers' wages.

Renegotiated or new trade deals with Canada and Mexico, China, South Korea, and Japan will modernize international trade and create freer, fairer, and more reciprocal trade between the United States and our largest trading partners, allowing the manufacturing renaissance to continue. Trade deals are in development with the United Kingdom and the European Union, among other countries that need access to the coveted United States market. These deals will both expand United States markets abroad and keep businesses here in America, which means keeping jobs here in America.

I have the deepest respect for America's workers and job creators who have made this economic boom possible. That is why we are fighting back against other nations that have exploited the pioneering spirit of our country's entrepreneurs. Through combating intellectual property theft and unfair trade deals, along with leading the way on 5G development and deployment, my Administration is standing up to countries around the world to give American job creators the freedom to innovate and make life better for their fellow citizens. These proactive steps will benefit everyone, from large companies that employ hundreds or thousands of Americans to budding entrepreneurs trying to turn their ideas into reality.

The labor market experiences that people are gaining today will change the trajectories of their lives—and those of their children—for years to come. No matter their pasts, people deserve agency over their own lives, and my Administration will never tell Americans that they cannot or do not deserve the ability to work and earn a living for themselves and their families.

## *Previously Forgotten Americans Are Forgotten No More*

America's labor market successes are also helping us defeat the opioid crisis. While the causes of the crisis are multifaceted, work must play an integral role in any solution. Research shows that holding a job is a key factor in helping people overcome drug addiction. Over the rest of my presidency, I will continue to promote policies that beat back this deadly crisis and encourage work for Americans who are rebuilding their lives after struggling with addiction.

Because of my Administration's aggressive efforts to end the overprescription of opioids, promote effective treatment, and secure the border, the tide is finally turning on the opioid crisis. Overdose deaths and first-time users are down, but that does not mean the crisis is over. Failure is not an option when it comes to helping people avoid the pain and suffering caused by addiction.

Unfortunately, the largest drug crisis in our history has left many people with criminal records. After someone leaves the justice system, they face two options: find honest work and successfully reenter society, or stay out of work and face the increased likelihood of committing another crime. Finding work is one of the top indicators of whether someone who commits a crime will turn his or her life around and live crime-free. This is why work is not just essential for reforming individuals; it is also necessary for promoting public safety. Beyond signing the landmark First Step Act to promote public safety and make America's justice system fairer, my Administration is also putting substantial resources behind programs that improve employment outcomes for the formerly incarcerated. Likewise, criminal justice reform that emphasizes work helps break the cycle of generational poverty.

In 2018 alone, 1.4 million Americans were lifted out of poverty, and the poverty rate fell to its lowest level since 2001. For African Americans and Hispanic Americans, poverty rates are at historic lows, and the poverty rate for single mothers and children is falling much faster than the average. Since I took office, food insecurity has fallen and nearly 7 million people have been lifted off food stamps. Beneficiaries entering the labor market or increasing their incomes through work is likely driving falling enrollment in Medicaid, TANF, and disability insurance.

These Americans are not simply rising out of poverty; they are building careers of which they and their families can be proud. Wages are rising fastest for people with the lowest incomes, meaning people currently working in lower-paying jobs will not have low incomes for long. Getting that first job is critical, because it serves as a foundation for progressively better jobs over a worker's career.

A commitment to the transformative power of work is why I signed an Executive Order instructing agencies to reduce dependence on welfare programs by encouraging work. Less than 3 percent of people who work full time

live in poverty. Individuals will not be able to build the lives they want through welfare alone: Work is a necessary condition for upward mobility.

While strengthening and expanding work requirements for public assistance programs lead people to reenter the workforce and increase their household incomes, work requirements are most effective when employers are hiring. This is one reason why my Administration emphasizes policies that lead to job creation.

## ***Pro-Growth Policies Are Pro-Worker Policies***

One foundational policy that continues to drive job creation is tax reform. Since the Tax Cuts and Jobs Act—the biggest package of tax cuts and tax reforms in our country’s history—took effect, more than 4 million jobs have been created and economic growth has beaten previous projections. America’s outdated tax code drove away businesses and investment, but tax reform has brought rates down and made the United States globally competitive again.

Many workers saw bonuses and raises immediately after tax reform, and nearly 40 million American families received an average benefit of \$2,200 in 2019 from doubling the child tax credit. Yet the biggest payoff is still to come. Tax reform put an end to America’s counterproductive policy of punishing business investments, which means that workers will see even greater benefits once these investments pay off.

My Administration has also prioritized healthcare reforms that make the system more competitive and, therefore, more affordable. We are giving patients increased choice and control, and protecting the high-quality care that Americans expect and deserve. Healthcare is a top priority because healthcare costs are among the top annual expenses for American families. Under my Administration, the Food and Drug Administration has approved more generic drugs than ever before in United States history and enhanced its approval process for new, lifesaving drugs. This past year, prescription drug prices experienced the largest year-over-year decline in more than 50 years.

Whether it is through reforms that bring choice to Veterans Administration care, promote Health Reimbursement Arrangements, or give terminally ill patients access to potentially lifesaving drugs, among many other successes, every healthcare reform that lowers costs and increases quality allows American workers to live longer, healthier lives and keep more of their paychecks.

Tax cuts and healthcare reforms put more money in the hands of working families and job creators, creating a virtuous cycle of even more jobs and even higher paychecks. On the other hand, when regulations limit individuals’ ability to experience the dignity that comes through work, those regulations deserve additional scrutiny. Over the previous decades, the Federal Government has disproportionately regulated sectors of the economy—like energy and manufacturing—that offer fulfilling, blue collar jobs for the majority of Americans who do not have a college degree. These misguided policy decisions imposed

real-world costs that created barriers to success and prosperity for hardworking Americans. Those days are over.

American energy powers our cities and towns, empowers innovators, and ultimately drives our economy. Energy companies across the world are ready to build in our Nation, and permitting reform that cuts red tape shows that we welcome their investments. My Administration continues to support the energy industry's growth by removing unnecessary regulations and unleashing America's vast natural and human resources. Through these actions, the United States is now on track to be a net exporter of crude oil and natural gas for all of 2020, a major milestone not achieved in at least 70 years. In addition to being the world's largest natural gas producer, we also became the world's top crude oil producer in 2018.

The positive records of our energy boom are widespread. Energy production has created jobs in areas of the United States where job opportunities were scarce. It also provides enormous benefits to families across the Nation by lowering energy prices. And it further distances us from geopolitical foes who wish to cause us harm. More jobs, lower costs, and American dominance—these are the predictable results of our pro-growth policies.

Many pundits and Washington insiders laughed when I promised to cut two regulations for every new regulation. They were correct that two-for-one was the wrong goal. Instead, the Federal Government has cut more than seven regulations for every significant new regulation. After only three years, my Administration has already cut more regulations than any other in United States history, and we have put the brakes on an endless assault of new, costly actions by Federal agencies.

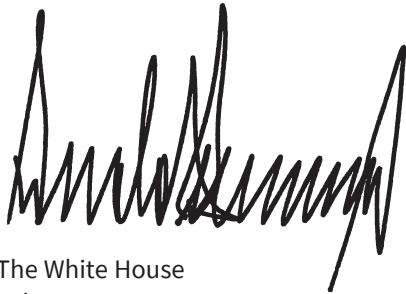
Our commitment to regulatory reform stems from the simple truth that the vast majority of business owners want to do the right thing, comply with the law, and treat their workers fairly. The Federal Government ignored this reality for far too long and abused its authority to go after businesses, especially small businesses and entrepreneurs, in ways that can only be described as arbitrary and abusive.

To promote regulatory fairness, I signed two Executive Orders that will improve Federal agencies' transparency and fairness while holding them accountable for their actions. Agencies will now need to give people fair notice and a chance to respond to any Federal complaint filed against them. Furthermore, the rules agencies enforce will no longer be secret, because all agencies' interpretations of rules will need to be made publicly accessible. Additionally, significant interpretations of rules will need to go through the public review process that is central to a flourishing democracy. Deregulation and increased transparency will save job creators money, leading to more hiring and higher paychecks.

Every American, no matter his or her background, can share in the dignity of work. The era of putting American workers second and doubling down on

the failed Federal policies of the past is over. While job creation during my Presidency has surpassed expectations, the credit belongs to the job creators and workers who risk everything and devote themselves to building a better future for themselves, their families, and their Nation. The Federal Government does not create jobs; hardworking Americans create jobs. My Administration's role is to follow our foundational policy pillars and allow our job creators and workers to do what they do best.

As the following *Report* shows, because of the strength, resiliency, and determination of the United States workforce, which is the envy of the world, my pro-growth policies continue producing unquestionably positive results for the economy. The *Report* also makes it clear that, though the American economy is stronger than ever, my Administration's work is not yet done. With a continued focus on policies that increase economic growth, promote opportunity, and uplift our workers, there is no limit on how great America can be.

A large, stylized handwritten signature in black ink, characteristic of Donald Trump's signature style, featuring multiple sharp peaks and a long, sweeping underline.

The White House  
February 2020



**The Annual Report  
of the  
Council of Economic Advisers**





# Letter of Transmittal

Council of Economic Advisers  
Washington, February 20, 2020

Mr. President:

The Council of Economic Advisers herewith submits its 2020 *Annual Report* in accordance with the Employment Act of 1946, as amended by the Full Employment and Balanced Growth Act of 1978.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Tom Philipson", written over a light gray horizontal line.

Tomas J. Philipson  
*Acting Chairman*

A handwritten signature in black ink, appearing to read "Tyler B. Goodspeed", written over a light gray horizontal line.

Tyler B. Goodspeed  
*Member*



# Introduction

Three years into the Trump Administration, the U.S. economy continues to outperform expectations across numerous metrics, with growth in output, employment, and employee compensation all exceeding pre-2017 forecasts. The evident success of the Administration's economic policy agenda demonstrates that its foundational policy pillars are enabling the U.S. economy to overcome structural trends that were previously suppressing growth.

During the four quarters of 2019, real gross domestic product grew 0.7 percentage point faster than had been projected by the independent Congressional Budget Office's (CBO) August 2016 projections. As shown in figures I-1 and I-2, the U.S. labor market added 2.1 million new jobs—2.0 million more than projected in 2016—bringing the civilian unemployment rate down to 3.5 percent, which is its lowest level since 1969 (and 1.4 percentage points below 2016 CBO projections).<sup>1</sup> Higher pay accompanied abundant job vacancies, as employee compensation rose to 1.4 percent above the 2016 forecast, implying an additional \$1,800 in compensation per household.

In July 2019, the current expansion of the U.S. economy became the longest on record. Contrary to expectations that the expansion would slow as it matured, economic output has accelerated over the past 3 years relative to the preceding 7½ years, with output growth rising from 2.2 to 2.5 percent at a compound annual rate. In the first three quarters of 2019, U.S. economic growth was the highest among the Group of Seven countries.

Reflecting this outperformance of expectations, in the first five chapters of this *Report* we present evidence that the Trump Administration's foundational policy pillars are continuing to deliver economic results. In particular, we highlight the role of the Administration's prioritization of economic efficiency and pro-market reforms in the realms of tax, labor, regulation, energy, and healthcare in elevating the growth potential of the U.S. economy and increasing the well-being of those previously left behind during the current expansion.

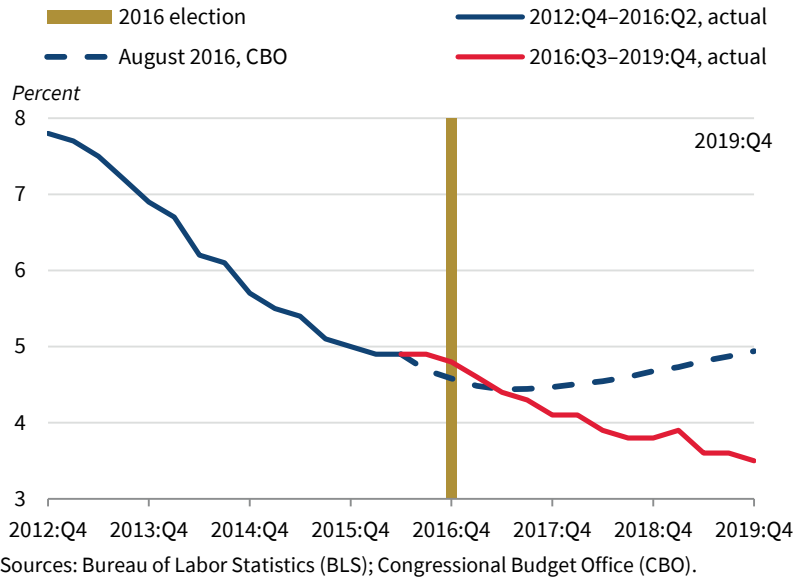
In the subsequent three chapters, we then identify several challenges to continued growth. Efforts to address these obstacles include ensuring that U.S. markets remain economically fair and competitive, combating the ongoing threat of widespread opioid addiction, and addressing the overregulation of housing markets. We conclude by setting forth the Administration's long-run, policy-inclusive economic projections, and highlighting potential risks to the outlook.

We begin in chapter 1 by documenting that, despite strong headwinds from the global economy and several idiosyncratic adverse shocks, Administration policies have helped to keep the U.S. economy resilient. As a result, output has grown at the fastest rate among the Group of Seven

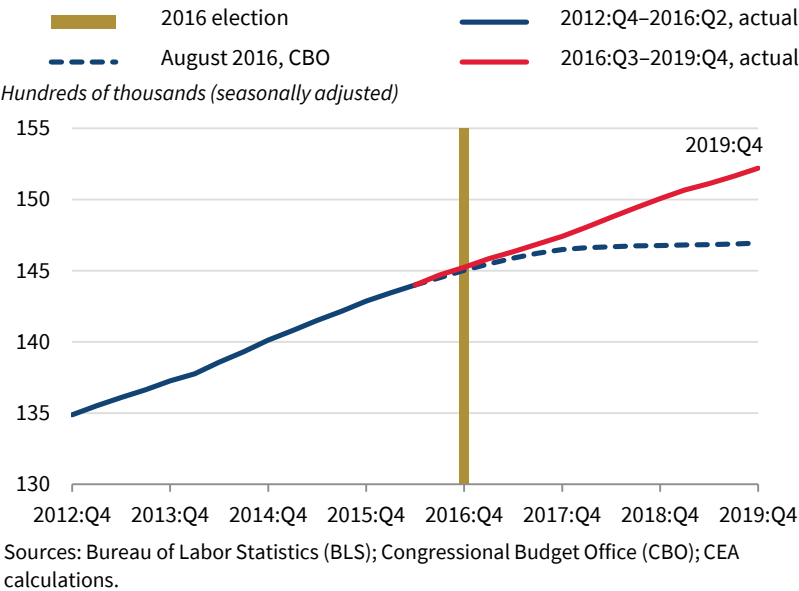
---

<sup>1</sup> In preparing this *Economic Report of the President*, data available as of January 30, 2020, were incorporated as publicly reported and are reflected in the chapters that follow.

**Figure I-1. The Actual Unemployment Rate in Various Quarters versus the August 2016 Rate, per the BLS and CBO, 2012–19**



**Figure I-2. Actual Nonfarm Payrolls versus the August 2016 Payroll, per the CBO, 2012–19**



economies in the past year. During 2019, several macroeconomic indicators—including consumer spending, productivity, and labor share of income—grew at faster rates than preelection projections. The labor market also tightened further, even after strong gains during the previous two years. During this Administration, the unemployment rate hit a 50-year low, and the number of job openings exceeded job seekers for the first time in recorded U.S. history, which has helped to pull potential workers into the labor force and boost real wages. The stabilization of labor force participation after years of decline, particularly among prime-age workers, has also boosted long-term potential output.

We continue to evaluate the performance of the U.S. labor market in chapter 2, paying particular attention to how the Administration's pro-growth agenda has disproportionately benefited those previously left behind during the current expansion. We document how, in stark contrast to the expansion through 2016, policies that both raised labor demand and incentivized employers to invest more in their workers have resulted in wage gains for historically disadvantaged Americans. Average wage growth for workers now outpaces wage growth for supervisors; wage growth for individuals at the 10th percentile of the income distribution now outpaces wage growth for individuals at the 90th percentile; wage growth for those without a college degree now outpaces wage growth for those with a college degree; and wage growth for African Americans now outpaces wage growth for white Americans. With monthly payroll employment growth outpacing that required to maintain a stable employment-to-population ratio, we also document the extent to which the U.S. economy is pulling millions back into the labor force and out of poverty.

Looking ahead, we outline the Administration's continued prioritization of initiatives aimed at promoting alternative paths to work, supporting on-the-job training and reskilling, reducing recidivism, combating opioid abuse, expanding access to affordable childcare, and enabling economic growth that provides expanded employment opportunities for every American who seeks work.

In chapter 3, we analyze the effects of the Administration's regulatory reform agenda. We estimate that after 5 to 10 years, the Administration's approach to Federal regulation will have raised real incomes by \$3,100 per household per year, with 20 notable Federal deregulatory actions alone saving American consumers and businesses about \$220 billion per year once they go into full effect, which will raise real incomes by about 1.3 percent. We further calculate that the ongoing introduction of costly regulations had previously been subtracting 0.2 percent a year from real incomes. By increasing competition, productivity, and wages, and reducing the prices of consumer goods, the Administration's approach to regulation is raising real incomes while maintaining regulatory protections for workers, public health, safety, and the environment.

Continuing the focus on regulation, in chapter 4 we focus specifically on U.S. energy markets. By lowering prices, the CEA estimates that the shale revolution saves the average family of four \$2,500 annually. Because low-income households spend a larger share of their income on energy bills, they benefit disproportionately from lower energy prices: shale-driven savings represent a much larger percentage of income for the poorest fifth of households than for the richest fifth. At the same time, shale-driven production growth has affected U.S. energy independence. This goal, initiated by President Nixon and pursued by every subsequent Administration, was finally achieved under the Trump Administration. In September 2019, the United States became a net exporter of petroleum, and the United States is projected to remain a net exporter for all of 2020, for the first time since at least 1949. We estimate that from 2005 to 2018, the shale revolution in particular was responsible for reducing carbon dioxide emissions in the electric power sector by 21 percent. Finally, we demonstrate how, by limiting unnecessary constraints on private innovation and investment, the Administration's approach to eliminating excessive regulation of energy markets supports further unleashing of the country's abundant human and energy resources.

In chapter 5, we identify government barriers to market competition in healthcare that increase prices, reduce innovation, and hinder improvements in quality. We also summarize the achievements and expected effects of the Administration's health policy initiatives to reduce these impediments and facilitate greater competition in healthcare markets. The Administration's reforms aim to foster a healthcare system that delivers high-quality services at affordable prices through greater choice, competition, and consumer-directed spending, in contrast to government mandates that too often reduce consumer choice in healthcare markets and increase premiums. The Administration has addressed many of these problems through a series of Executive Orders, regulatory reforms, and legislation.

Turning to potential obstacles, in chapter 6, we analyze concerns about possible trends in market competition, recognizing the vital role that competition plays in economic growth, promoting innovation and entrepreneurship, and serving consumers. We find that the best available evidence suggests there is no need to rewrite the Federal Government's antitrust rules. Because Federal enforcement agencies are already empowered with a flexible legal framework, they possess the necessary tools to promote economic dynamism. Ongoing investigations and resolved cases show that these agencies are well equipped to handle the competition challenges posed by the changing U.S. economy. We conclude that in addition to vigorously combating anticompetitive behavior from companies using existing tools, the Administration will focus on changing government policies that create an unfair playing field. As the recent historic regulatory reform across American industries has shown, eliminating

government-imposed barriers to innovation leads to increased competition, stronger economic growth, and a revitalized private sector.

In chapter 7, we analyze the ongoing threat of widespread opioid addiction that, since 2000, has been responsible for more than 400,000 deaths. We find that actions taken by the Administration to lower the supply of opioids, reduce new demand for opioids, and treat those with current opioid use disorder may have contributed to a flattening in overdose deaths involving opioids. Recognizing that understanding the origins of the crisis is essential to effectively combating it, we find that a first wave of the crisis, from 2001 to 2010, was driven in large part by steep declines in out-of-pocket prescription opioid prices. Prices fell due to expanded government healthcare coverage, as well as to the increased availability of prescription opioids due to pain management practices that encouraged liberalized dispensing practices by doctors. We then find that a second wave of the opioid crisis, starting in 2010, likely began because of efforts to limit the supply of the powerful prescription opioid OxyContin, an unintended consequence of which was the creation of a large illicit market for the development and sale of cheaper illegal substitutes.

In chapter 8, we study the challenges posed by rising housing unaffordability in some U.S. real estate markets. We find that a key driver of the housing unaffordability problem is the overregulation of housing markets by State and local governments, which limits supply. By driving up home prices, overregulation adversely affects low-income Americans in particular, who spend the largest share of their income on housing. Among 11 particularly supply-constrained metropolitan areas, we estimate that regulatory reform would increase the housing supply and decrease rents enough to reduce homelessness by 31 percent on average. In addition, we find that overregulation of housing markets has broader negative effects on all Americans by reducing labor mobility and thus productivity growth, amplifying inequality across regions and workers, and harming the environment by forcing longer commutes. We conclude by documenting the Administration's actions to address the housing unaffordability challenge by incentivizing State and local governments to increase housing supply in supply-constrained areas and by establishing the White House Council on Eliminating Regulatory Barriers to Affordable Housing.

Finally, in chapter 9, we present the Trump Administration's full, policy-inclusive economic forecast for the next 11 years, including risks to the economic outlook. Overall, assuming full implementation of the Administration's economic policy agenda, we project that real U.S. economic output will grow at an average annual rate of 2.9 percent between 2019 and 2030. We expect growth to moderate, from 3.0 percent in 2020 to 2.8 percent in the latter half of the budget window, as the capital-to-output ratio asymptotically approaches its new, postcorporate tax reform steady state and as the near-term effects of the Tax Cuts and Jobs Act's individual provisions on the rate of growth dissipate into a permanent-level effect. Partially offsetting this moderation are the

expected positive contributions to growth from enacting the Administration's infrastructure plan, making permanent the individual provisions of the Tax Cuts and Jobs Act, reforming the U.S. immigration system, continuing deregulatory actions, improving trade deals with international trading partners, and incentivizing higher labor force participation through additional labor market reforms.