



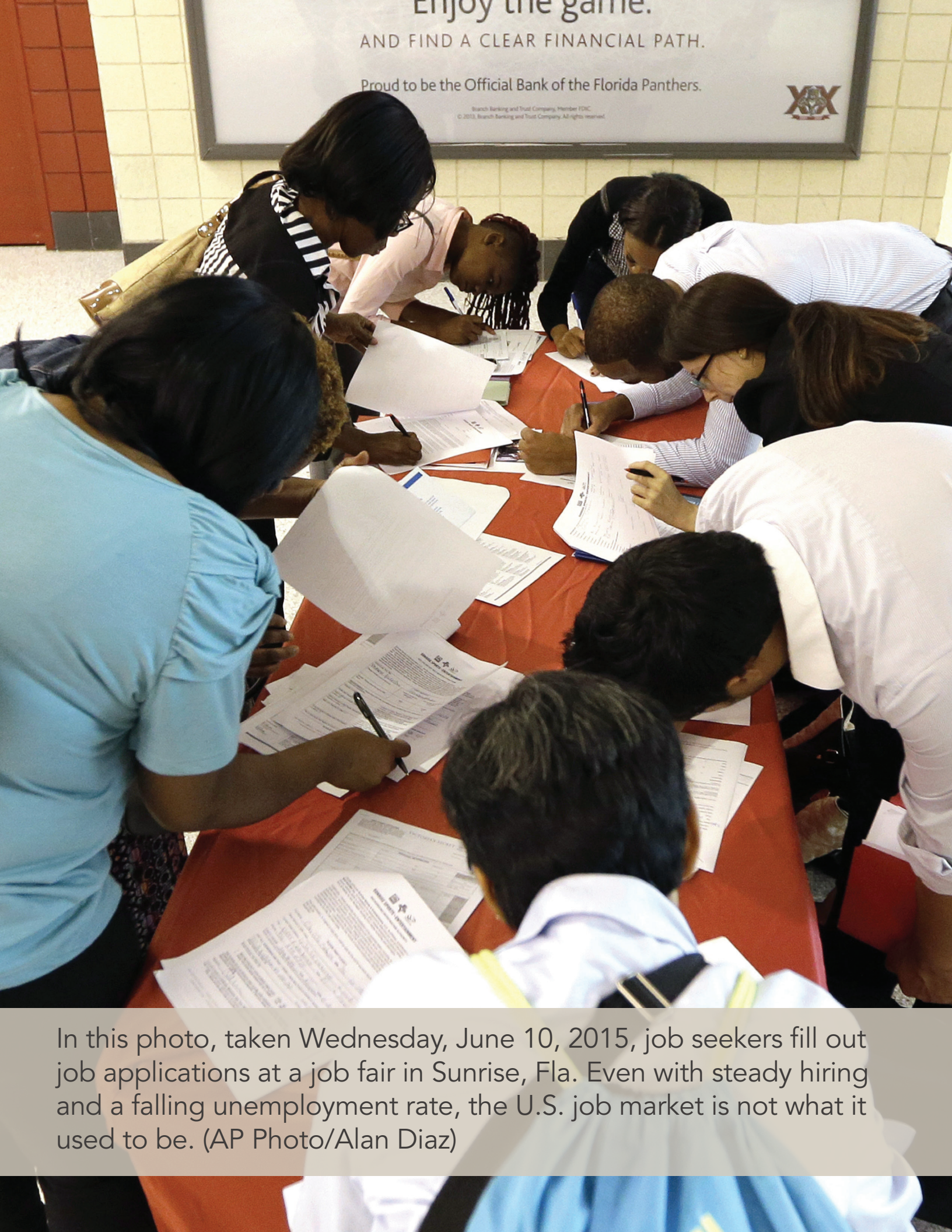
THE **COST** OF THE **CRISIS**

\$20 trillion and counting



**BETTER
MARKETS**

JULY 2015



In this photo, taken Wednesday, June 10, 2015, job seekers fill out job applications at a job fair in Sunrise, Fla. Even with steady hiring and a falling unemployment rate, the U.S. job market is not what it used to be. (AP Photo/Alan Diaz)



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SUMMARY

- The financial crash in 2008 was the worst since the Great Crash of 1929 and it caused the worst economy since the Great Depression of the 1930s. A second Great Depression was only avoided due to unprecedented, historic, and very costly government and taxpayer bailouts for too-big-to-fail Wall Street banks and the financial sector.
- The financial crash and its fallout will ultimately cost the hardworking American people more than \$20 trillion in lost gross domestic product (GDP). Those losses include historically high unemployment, underemployment, long-term unemployment, foreclosures, homelessness, underwater mortgages, bankrupt businesses large and small, lost savings, deferred or denied retirements, educations cut short, and so much more.
- A primary cause of the financial crash was the dismantling of regulations that were passed in the aftermath of the 1929 crash to protect Main Street families from Wall Street's high-risk activities. The protections worked for more than 70 years as there were no catastrophic financial crises, our economy flourished, and there was broad-based prosperity among the middle class.
- Culminating in 2000, Wall Street's lobbying succeeded in rolling back or weakening many core protections, resulting in deregulation, non-regulation, and so-called self-policing. In the years that followed, Wall Street engaged in a breathtaking spree of high-risk, reckless, and sometimes illegal behavior, which caused the 2008 financial crash and the Great Recession.
- That is why financial reform generally, and the Dodd-Frank Wall Street Reform and Consumer Protection Act in particular, were essential: to rebuild the protections between Wall Street and Main Street; to eliminate or reduce Wall Street's highest-risk, most dangerous activities that threaten hardworking American families; and to put Wall Street back in the business of traditional banking to support jobs and growth in the real economy, not to threaten them.
- However, just seven years after the crash and only five years since the financial reform law was signed into law, many are forgetting, understating, or misrepresenting the causes and costs of the crisis. This has been abetted by a disingenuous Wall Street public relations campaign to mischaracterize financial reform as a costly burden and a threat to middle class families, jobs, community banks, and the economy. But these self-serving claims are nothing more than smokescreens to gut financial reforms and enable Wall Street to return to its recklessness, endangering Americans once again.
- This report is a reminder—and a warning—that implementation of the financial reform law must not only be completed, but also defended against those who would allow Wall Street to return to business as usual and harm Main Street once again. The costs are too high. The American people have suffered enough. They deserve better.

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I. EXECUTIVE SUMMARY:

The Cost of the Crisis—Past, Present & Future

On July 21, 2010, President Obama signed into law the most ambitious financial reform law since the 1930s.

The Dodd-Frank Wall Street Reform and Consumer Protection Act was an essential corrective to the worst financial crash since the Great Crash of 1929, which caused the worst economy since the Great Depression of the 1930s—a catastrophe that was caused by gigantic financial institutions embarking on an almost unprecedented binge of risk-taking, recklessness, and, at times, illegal conduct.

The cost of that financial and economic calamity has been tens of trillions of dollars and untold human suffering from coast to coast. It nearly caused a second Great Depression, which is why it has been designated “the Great Recession.”¹

“The world economy is on track to post its worst performance since the Great Depression, with developing countries bearing much of the economic pain, the World Bank said.”

- **“World Bank: Economy worst since Depression,”**
CNN Money
(March 9, 2009)²

There has been substantial economic recovery since the dark, bleak, and sometimes terrifying days of 2008 and 2009. However, even five years after the passage of Dodd-Frank and almost seven years after the Lehman Brothers collapse that sparked the 2008 financial crisis, America’s economy is still weak and millions of Americans are still hurting as a result of the financial crisis. Given that the financial crash caused the worst economic shock to the country in 80 years, this should surprise no one.

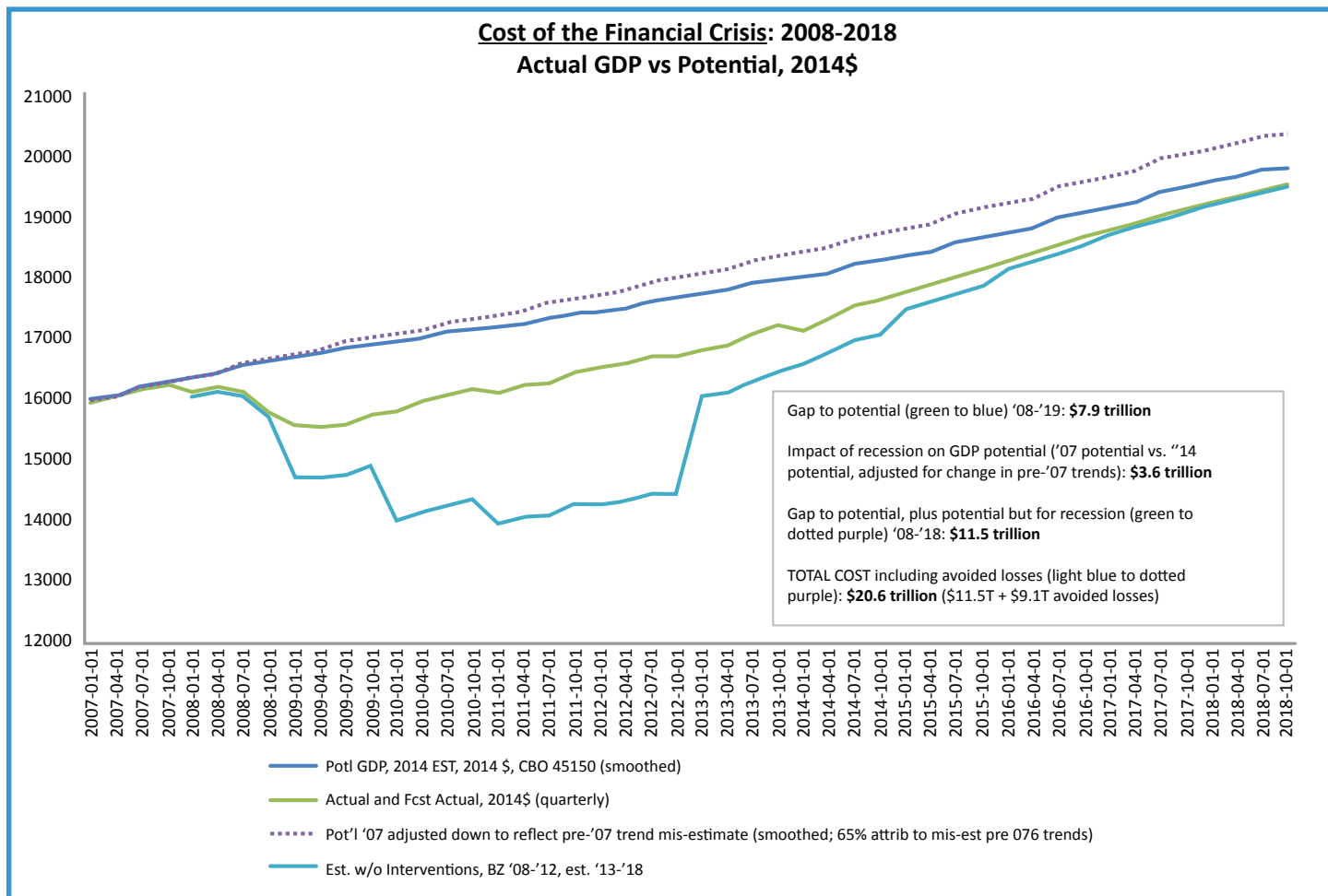
As a result, for too many Americans, the crisis that began in 2008 never ended. They lost their jobs, their homes, their wealth, their security, and in far too many cases, their hope for the future and faith in the American dream. And yet, a convenient amnesia and false narrative have started to pervade Washington and Wall Street—a sense that the crisis is over, that the costs have been paid, that financial reform is done, and that the financial industry can be allowed to return to business as usual.

This is why it is imperative, as a moral, economic, and political matter, to remember and catalogue the costs and suffering of the crisis: such devastation must never be allowed to happen to our country again. We know how to prevent it. The question is, do we have the will and the courage to make the changes we know must be made, and to enforce them?

Because this crisis isn’t over and the costs keep escalating, we can still only estimate the ultimate total costs, but as of July 2015, **the financial collapse and economic crisis caused by Wall Street has cost and will cost the American people at least \$20 trillion.** (See detailed description of the methodology at the end of the report).

\$20 trillion is a conservative estimate, including only:

- \$7.9 trillion in actual losses of GDP relative to potential GDP as currently estimated;
- \$3.6 trillion in reduced GDP potential, primarily as a function of reduced capital stock and labor hours resulting from effects of the Great Recession; and
- \$9.1 trillion in losses that would have occurred, if not for the extraordinary fiscal, financial market, and monetary interventions undertaken by the government early in the crisis.



Additionally, these GDP-focused effects do not even tell the whole story. They leave out the behavioral impacts from decreases in home values, losses in household financial wealth, drops in labor force participation and employment, and significant losses in state and local government revenues. Each of these has had major behavioral impacts as demonstrated throughout the report.

Unfortunately, the risk of a repeat is building, as Wall Street's biggest too-big-to-fail banks fight to undermine the Dodd-Frank financial reform protections that were necessitated by their own irresponsible and reckless gambling and, in some cases, illegal and criminal conduct.

The idea behind Dodd-Frank was to create layers of protections between Wall Street's riskiest activities and Main Street families as well as taxpayers' pockets. To do this, the law contained a number of key provisions to help create a more secure and stable financial system, including: prohibitions and limitations on certain high-risk trading activities for federally insured banks; requirements for more transparency in the trading of derivatives such as credit default swaps; and increased regulatory authority for the Federal Reserve (Fed) and other financial regulators like the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC).

The law also created the Financial Stability Oversight Council (FSOC) to identify unexpected and new threats to the country, like the collapse and bailout of AIG, and the backstop of the entire money market fund industry in 2008. It also established a new Consumer Financial Protection Bureau (CFPB) to protect consumers from unscrupulous business practices.

But soon after Dodd-Frank was signed, banks unleashed an army of lobbyists in Washington to try to repeal parts of it, weaken other parts, and create loopholes in whatever was left, all while falsely claiming to support reform. They've been at it ever since, aiming their fire at the agencies responsible for implementing the law and policing Wall Street, and when all else fails, suing the agencies in court.

Wall Street claims that Dodd-Frank financial reform harms their business, despite the fact that they posted record profits in both 2013 and 2014.³ They are right about one thing: Dodd-Frank does make it harder for banks to profit from reckless, socially useless trading and lending.

That's a good thing.

The Dodd-Frank law is supposed to limit Wall Street's highest-risk gambling so that America's families don't have to suffer from another financial crash and economic calamity or pay for more bailouts. Yes, that's going to cost Wall Street some profits and bonuses, and it might even cause some of their costs to go up, but that's a price most Americans will be happy to pay to prevent a repeat of the crash of 2008.

For years prior to the crisis, banks increased their leverage and left themselves critically undercapitalized, packaged poorly underwritten subprime mortgages into deceptively valued securities, and focused on short-term profits at the expense of the long-term viability of their companies and the U.S. economy. And at the expense of America's workers, families, and communities.

Some of this behavior was legal, some was irresponsible, some was reckless, much was unethical, and some was illegal and even criminal. All of it was representative of the freewheeling anything-goes culture that existed on Wall Street before 2008, where too often what mattered to too many was the biggest bonus, regardless of consequences. This attitude is captured in the Wall Street acronym "IBGYBG": "I'll be gone, you'll be gone," meaning, "who cares if it blows up after we sell it to you? We'll be gone with our bonuses filling our pockets."

In far too many financial institutions, this corrupt culture still remains. Fresh evidence of reckless and illegal conduct on Wall Street seems to emerge every day, with reports of settlements by the largest banks over everything from manipulation in the foreign exchange markets to aiding and abetting tax evasion for thousands of clients.

COST OF THE CRISIS AT A GLANCE

| | |
|----------------|---|
| \$20 trillion | Estimated actual and avoided GDP loss due to the financial crisis |
| \$800 billion | Cost of the stimulus bill to combat the economic crisis |
| 17.5% | U-6 rate (the broadest measure of unemployment) for five months between October 2009 and April 2010 |
| 2 million | Fewer jobs in mid- and high-wage industries compared to pre-recession estimates |
| 20% | Percentage of 16- to 24-year-olds without a job in 2010 |
| 7 months | Average length of unemployment as of May 2015, nearly double pre-recession levels |
| 15 million | Completed foreclosures between 2007 and 2014 |
| 31% | Share of mortgages that were underwater in 2012 |
| \$2.8 trillion | Total loss in the value of 401(k) plans and IRAs |
| 47% | Percentage of Americans who said in May 2015 that they don't have \$400 to cover an emergency expense |
| \$1.2 trillion | Total amount of student loan debt |
| \$116 billion | Decrease in small business lending from 2008 to 2011 |
| 55% | Decrease in net investment at the state level since the start of the recession |
| \$24 billion | Decrease in the government's R&D spending since 2011 |

This report will detail the depth and breadth of bank misconduct in the years before and after the crisis. These misdeeds should remind us that the financial industry can never again be left to regulate and police itself. The rewards are too irresistible and the damage to the country is too grave.

More importantly, this report will explore how Wall Street's actions harmed and continue to haunt millions of American families to this day.

Although the U.S. stock market has surged in the years since the crisis, and the economy is significantly better than in the dark days of 2008 and 2009, the real economy is still stuck in a rut. Since the recession officially ended in June 2009, growth has averaged around 2%, which is low by historical standards (and inflated by extraordinary monetary policies by the Fed).

And, every time the economy seems on the verge of beginning a sustained recovery, it falls back again. For example, GDP actually contracted by 0.2% in the first quarter of 2015.⁴ The result is that many Americans increasingly can't find good work, start a business, pay their debts, or save for college and retirement. The American dream is becoming a mirage.

One could certainly argue that, from a broader perspective, there are other factors beyond the fallout from the crisis contributing to these economic conditions and middle-class insecurity in America. Globalization has driven down wages in some industries, and new technology has eliminated many previously good-paying jobs. As described later in this report, many American families were already in a precarious financial position before the crisis. But inarguably, the 2008 financial and economic crisis—regardless of cause—deepened every troubling economic trend, and it created entirely new problems.

The crash caused massive wealth destruction.

If the 2008 crisis had been caused merely by a few bad actors taking crazy risks or committing isolated crimes, it would at least lend itself to a straightforward solution: fire or jail the bad actors and move on.

But the problems with the financial sector go much deeper. For starters, there has been virtually no accountability for the reckless, illegal, and criminal conduct by those working at Wall Street's biggest too-big-to-fail banks. In stark contrast, in the U.S. savings and loan scandals of the 1980s and 1990s—a much more contained event than the 2008 crisis—over 1,000 people were convicted of crimes.

How many Wall Street senior executives have been convicted of crimes in the wake of the worst financial collapse in almost 100 years?

Zero.

As detailed later, it's certainly not for lack of evidence. Instead, it speaks to the almost unprecedented power and influence of the financial sector and the unwillingness of prosecutors and regulators to enforce the law without fear or favor to the wealthy, powerful, and well-connected on Wall Street.

It was not always like this in America. For most of the mid- and late-20th century, banks did what they were supposed to do: they enabled people to save money for homes, retirements, and their children's education, and to borrow money to pay for goods and services. They helped governments and businesses raise money. And they helped channel investments into emerging sectors of the economy.

In the mid- to late-20th century, the economy was growing briskly, the U.S. middle class was as strong as it had ever been, there was widespread prosperity, and there wasn't a financial crisis anything like the Great Crash of 1929.

This was no accident: It was due to strong laws, regulations, regulators, and prosecutors. In the wake of the Great Depression, Washington passed a series of ambitious laws to rein in the financial sector and prevent the speculation and gambling that cratered the economy in 1929. Remarkably, these laws and regulations worked very well for almost 70 years, until they were slowly dismantled and, ultimately, repealed or gutted.

By the late 1990s and early 2000s, Wall Street—assisted by a wave of deregulation obtained by Wall Street lobbyists and allies—started to once again ramp up its risk-taking and, worst of all, grow bigger and bigger, which meant they posed bigger and bigger threats to the country if anything went wrong.

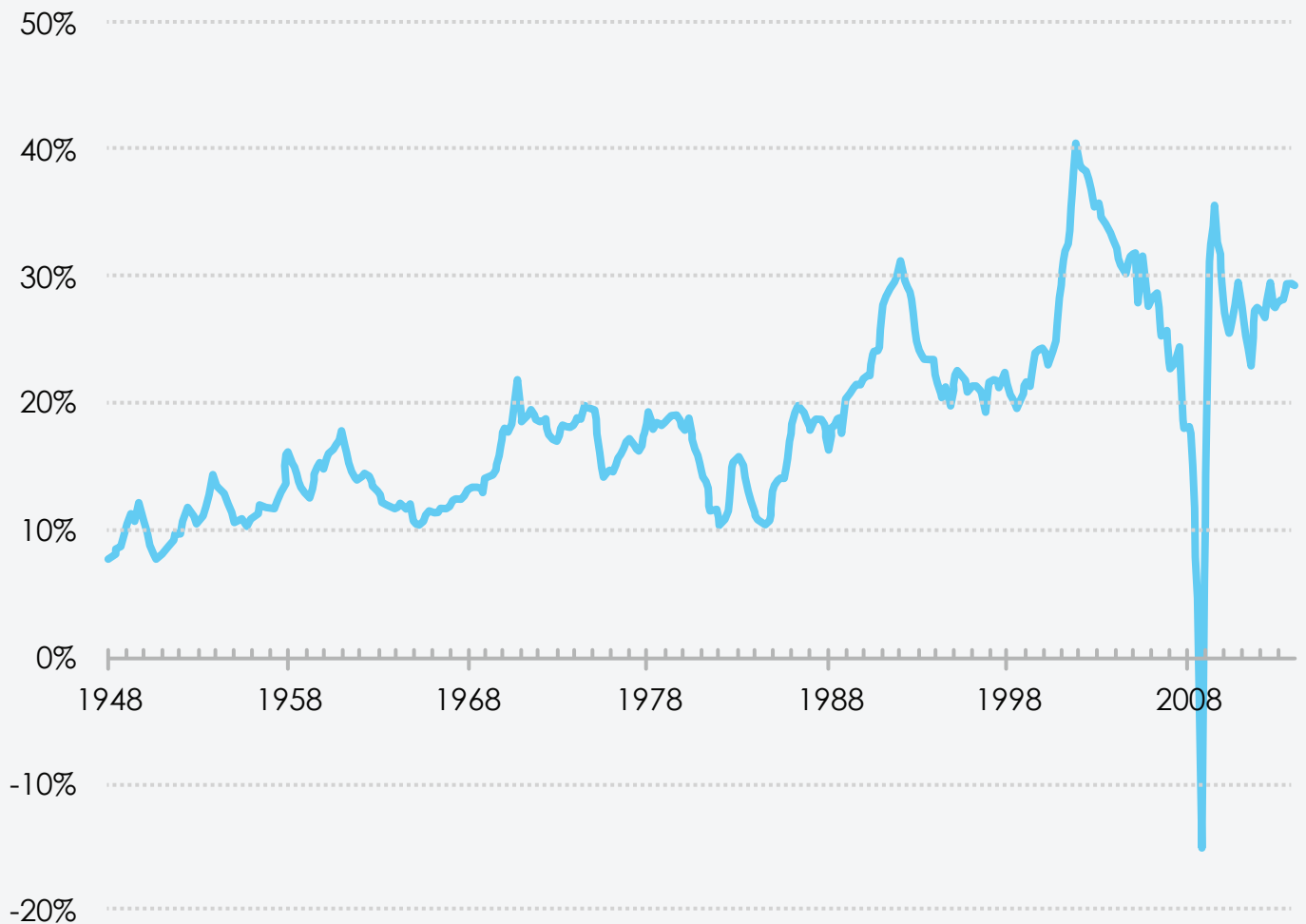
Wall Street banks turned their attention from **feeding the economy** to **feeding on the economy**. Instead of focusing on socially useful activities such as funding mortgages and new businesses, Wall Street increasingly turned to socially useless but immensely profitable activities such as placing huge proprietary bets in the derivatives markets.

There is actually a term for this behavior. It's called "rent-seeking," and it refers to a company or individual "using its resources to obtain an economic gain from others without reciprocating any benefits back to society through wealth creation."⁵ According to Paul Woolley, a former banker now affiliated with the London School of Economics, rent-seeking "causes the misallocation of labor and capital, transfers substantial wealth to bankers and financiers, and, at worst, induces systemic failure. Both impose social costs on their own, but in combination they create a perfect storm of wealth destruction."

For most of the past 70 years, financial institutions accounted for somewhere between 10-20% of all corporate profits in the U.S. That makes sense because finance, properly conducted, is supposed to support the real economy, i.e., the other 80-90% of corporate profits generated by companies that produce the goods and services that Americans need and want. Tellingly, in the years preceding the crisis, finance's share of corporate profits reached an astounding 40%.

The Financial Industry's Share of Total Domestic Corporate Profits: 1948-2013

Adjusted for changes in inventory valuation and capital consumption



Data Source: U.S. Bureau of Economic Analysis

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Numerous studies have shown that when the financial sector gets as big as it did in the U.S., it actually begins to decrease the overall economy's productivity and increase the risk of systemic crisis.⁷ Rather than supporting the real economy, finance had become a parasite feeding on it.

The financial sector will not voluntarily give up its own power or profits, even though those profits come at the expense of the economy's productivity and hardworking Americans' well-being. This is precisely why laws such as Dodd-Frank are so important. Without strong laws, rules, oversight, and enforcement, the financial sector has proven time and time again that it will make irresponsible bets, often with other people's federally insured money. When the bets pay off, the benefits go to the banks, their executives,

and their shareholders. When the bets fail catastrophically—as they did in 2008—the American people pay the price.

This is the privatization of gain for a select few and the socialization of loss for everyone else. And it is not acceptable in a democracy that is supposed to be based on a market economy, where private companies do not get bailed out by taxpayers and the government.

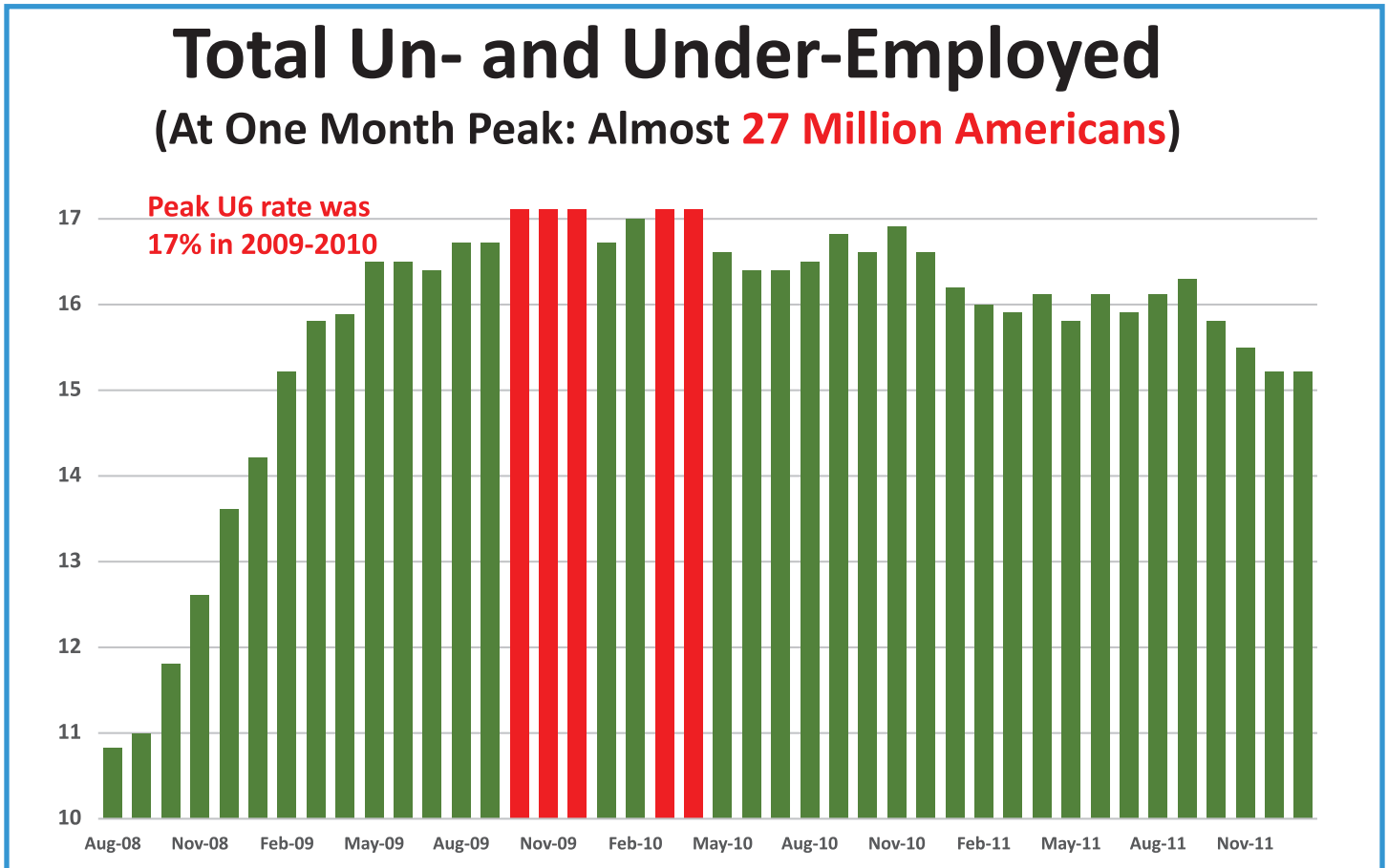
Everywhere else in the U.S., when a company fails, it ends up in bankruptcy; shareholders lose their investments; executives and others lose their jobs; and, creditors lose repayment on their loans, according to priority. It's not pretty, but it's capitalism. Those rules apply everywhere in the United States **except** for Wall Street's too-big-to-fail banks. Not only do the banks receive direct and indirect support and subsidies from the government and taxpayers when operating, but they also avoid bankruptcy when they fail. Instead, they—and they alone—get bailed out by taxpayers. That's wrong. It's un-American. It's the antithesis of capitalism. It's also what the Dodd-Frank financial law—and the rules implementing it—are supposed to end.

This *Cost of the Crisis* report will make clear just how steep a price the American people have paid and continue to pay, and hopefully, strengthen our resolve to never again let a deregulated or unregulated Wall Street ruin our economy.

II. JOBS: A 21st Century Depression

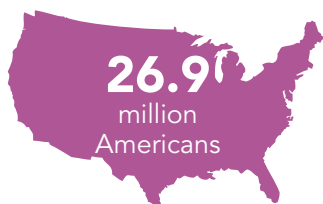
In the aftermath of the Great Recession, the most accurate and broadest measure of unemployment—the U-6 rate—peaked at 17.5%. The U-6 rate takes into account not just people who are unemployed, but also people forced to work part-time because they couldn't find full-time work, as well as people who are so discouraged that they have stopped looking for work but would begin to look again if labor market conditions improved.

The U-6 rate stayed at 17.5% for five out of seven months between October 2009 and April of 2010:



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To put this into perspective, the 17.5% rate equates to:

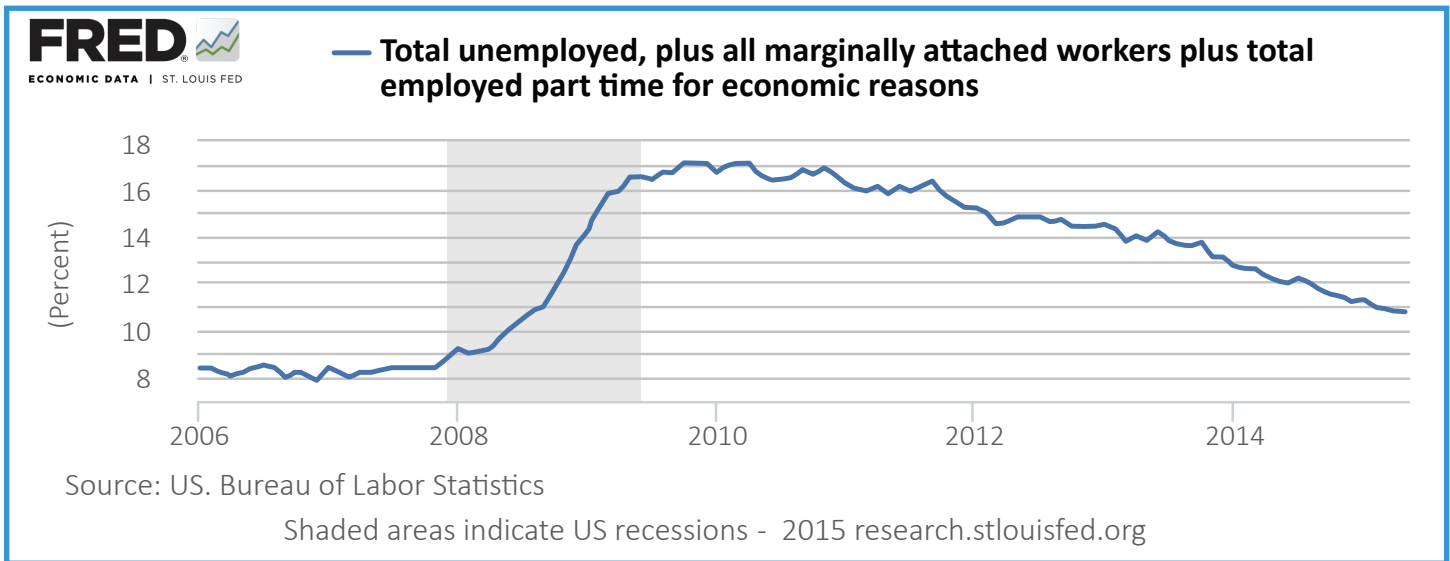


The entire population of the state of Texas



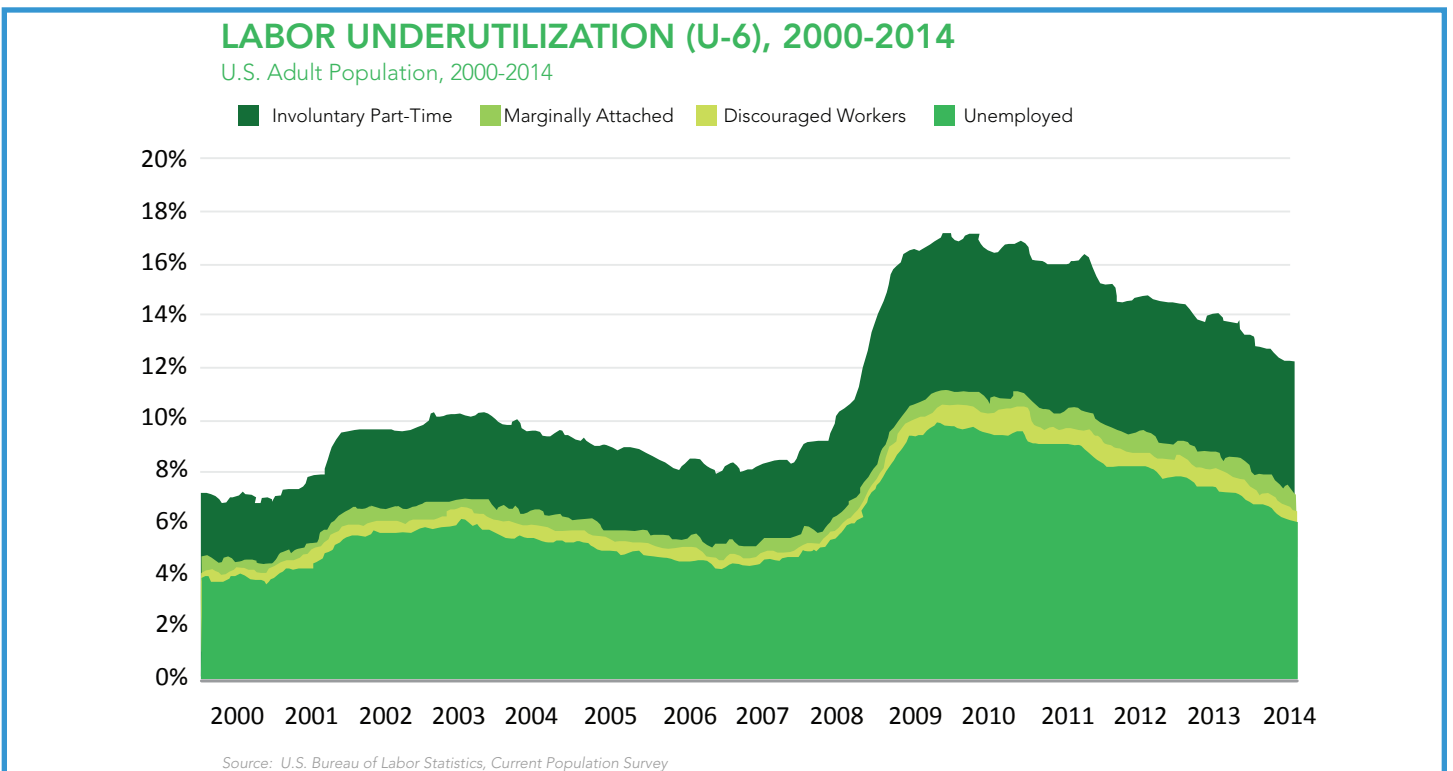
One out of every six workers in the U.S.

As displayed in the chart below from the U.S. Bureau of Labor Statistics, the U-6 rate more than doubled from early 2007 to its high point in late 2009/early 2010. As of June 2015, the U-6 rate was still at a historically high 10.5%.⁹ As noted by many leading economists and academics, the U-6 rate captures a broader picture of the labor market than the more widely publicized unemployment rate, and clearly demonstrates the historic and lasting job destruction caused by the financial crisis.



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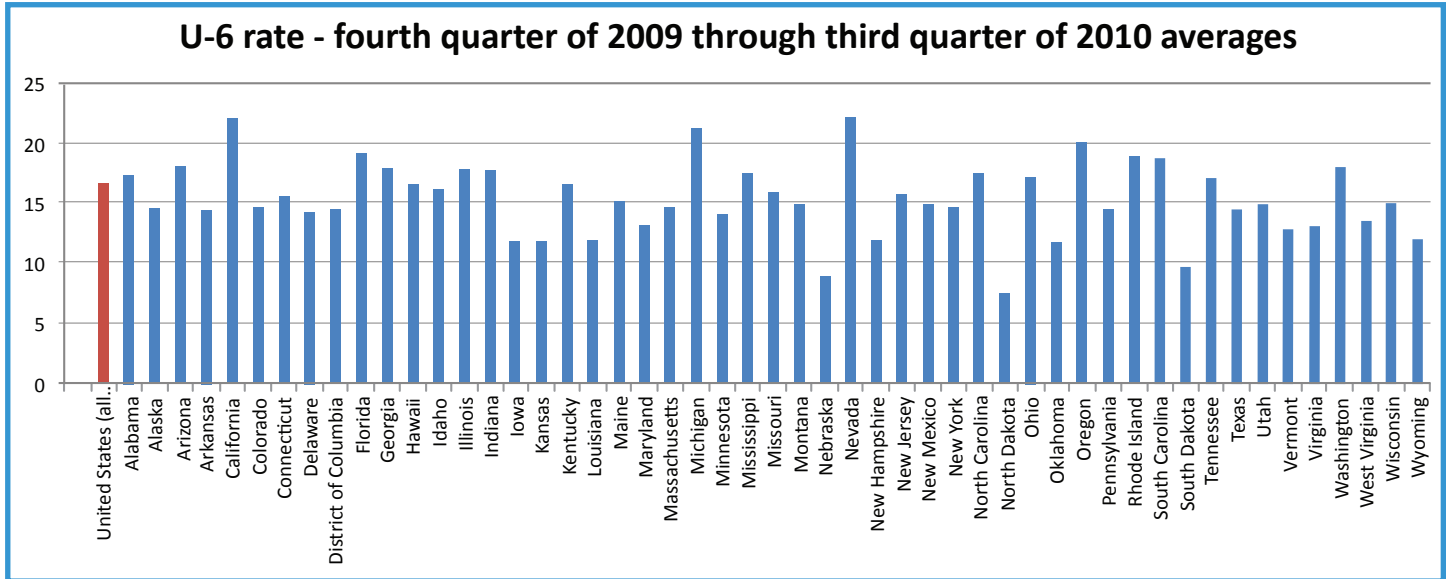
Shown another way, this chart demonstrates how many Americans were working part-time involuntarily, marginally attached, discouraged from looking for work, and unemployed following the 2008 financial crash:



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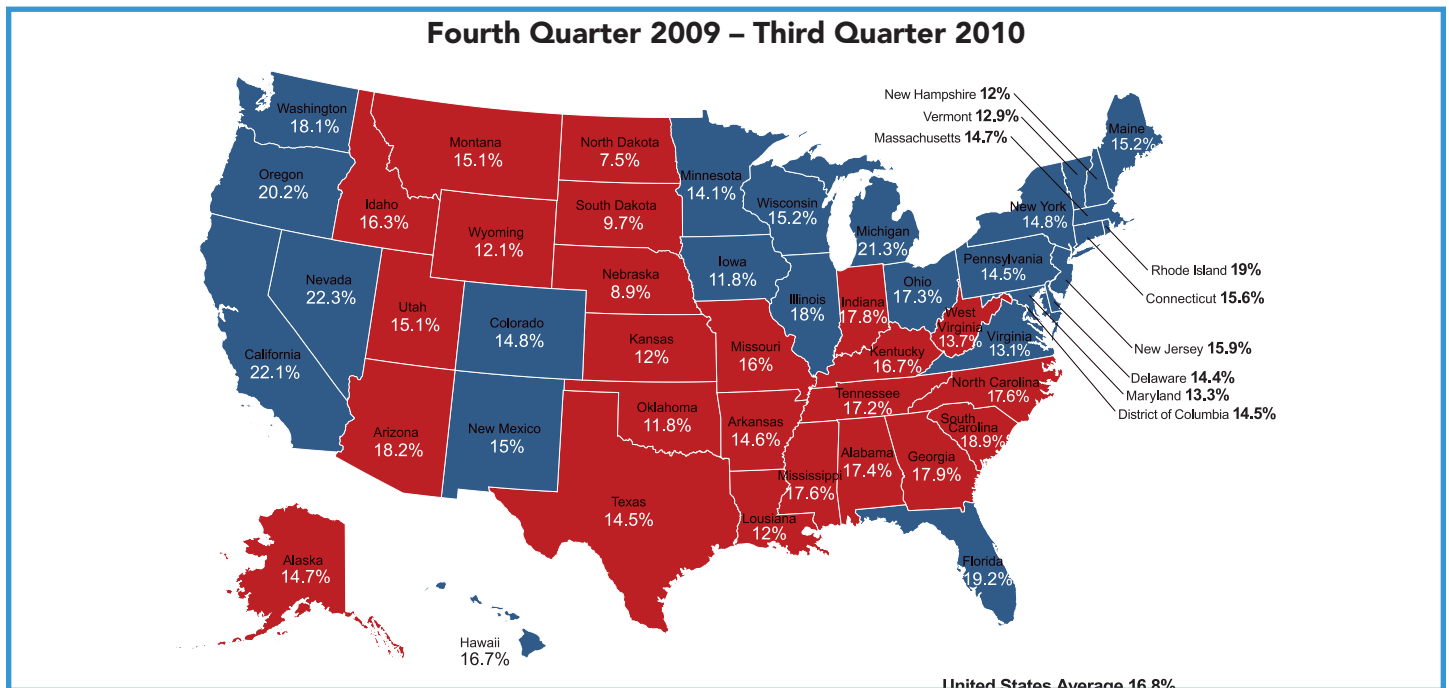
In many states, job loss was catastrophic.

In several states, particularly those that experienced massive housing bubbles, like California and Nevada, as well as large manufacturing states like Michigan, the U-6 rate rose to over 20% following the financial crisis. The chart below shows the average rate for unemployment, under-employment, and discouraged workers in all 50 states from the fourth quarter of 2009 through the third quarter of 2010:



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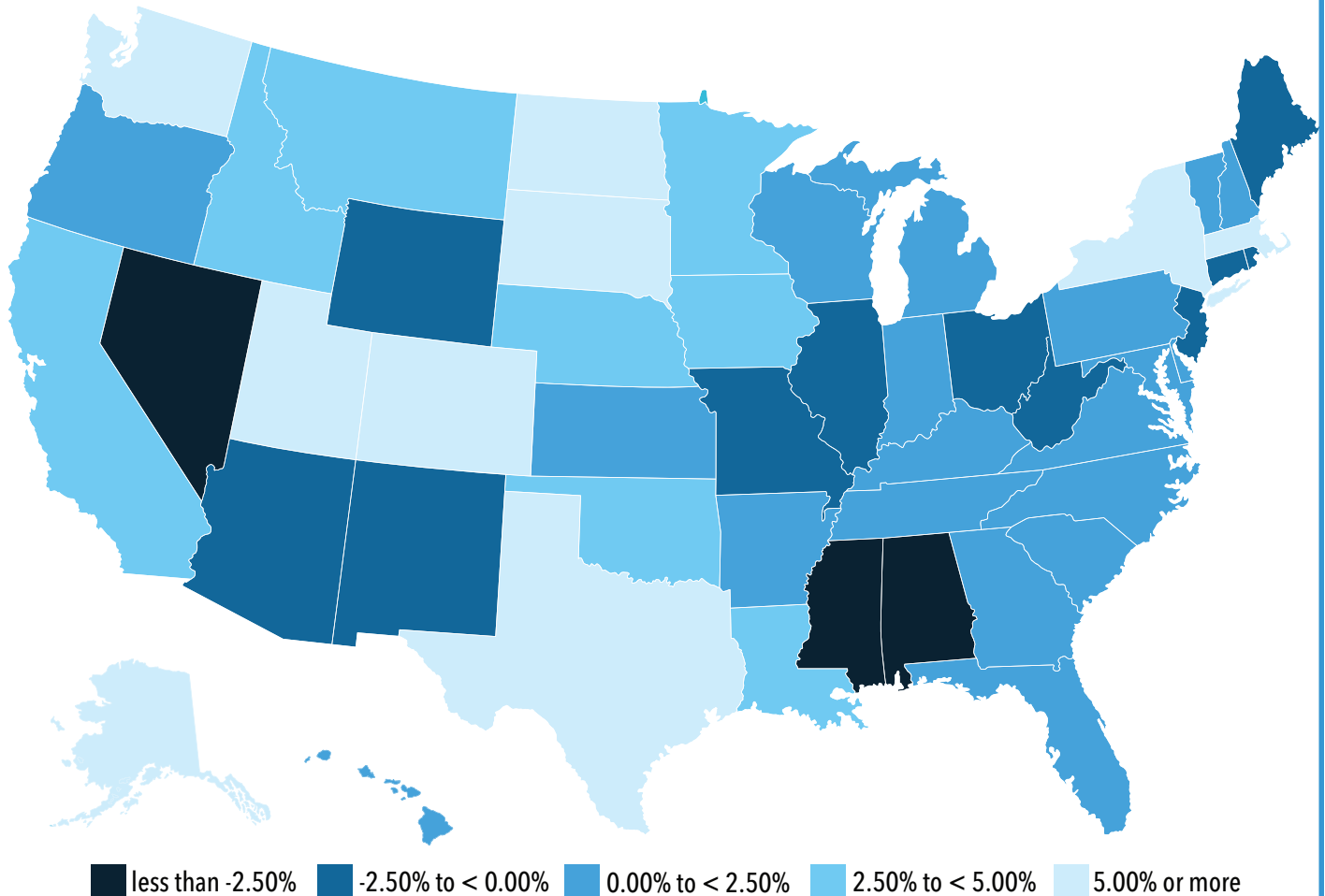
Not only does this show that the economic wreckage from the 2008 financial crash hit every state in the country; it also shows that it didn't matter whether the state voted for the Republican or Democratic candidate for President in 2008. Put another way, the costs of the financial crisis were inflicted on everyone in the country, regardless of party affiliation:



13

To show how deep and enduring the employment devastation has been, the chart below, based on data from the Bureau of Labor Statistics, shows that **as of May 2015 a total of 15 states still hadn't recovered the jobs lost during the Great Recession**. Also experiencing prolonged negative impacts are the states where job recovery has been slowest: Nevada, Mississippi, Alabama, and Ohio.

Change in employment by state December 2007 - May 2015



Note: Total nonfarm employment is the total number of jobs, part-time or full-time, in non-farm establishments

Source: EPI analysis of Bureau of Labor Statistics' Current Establishment Survey data

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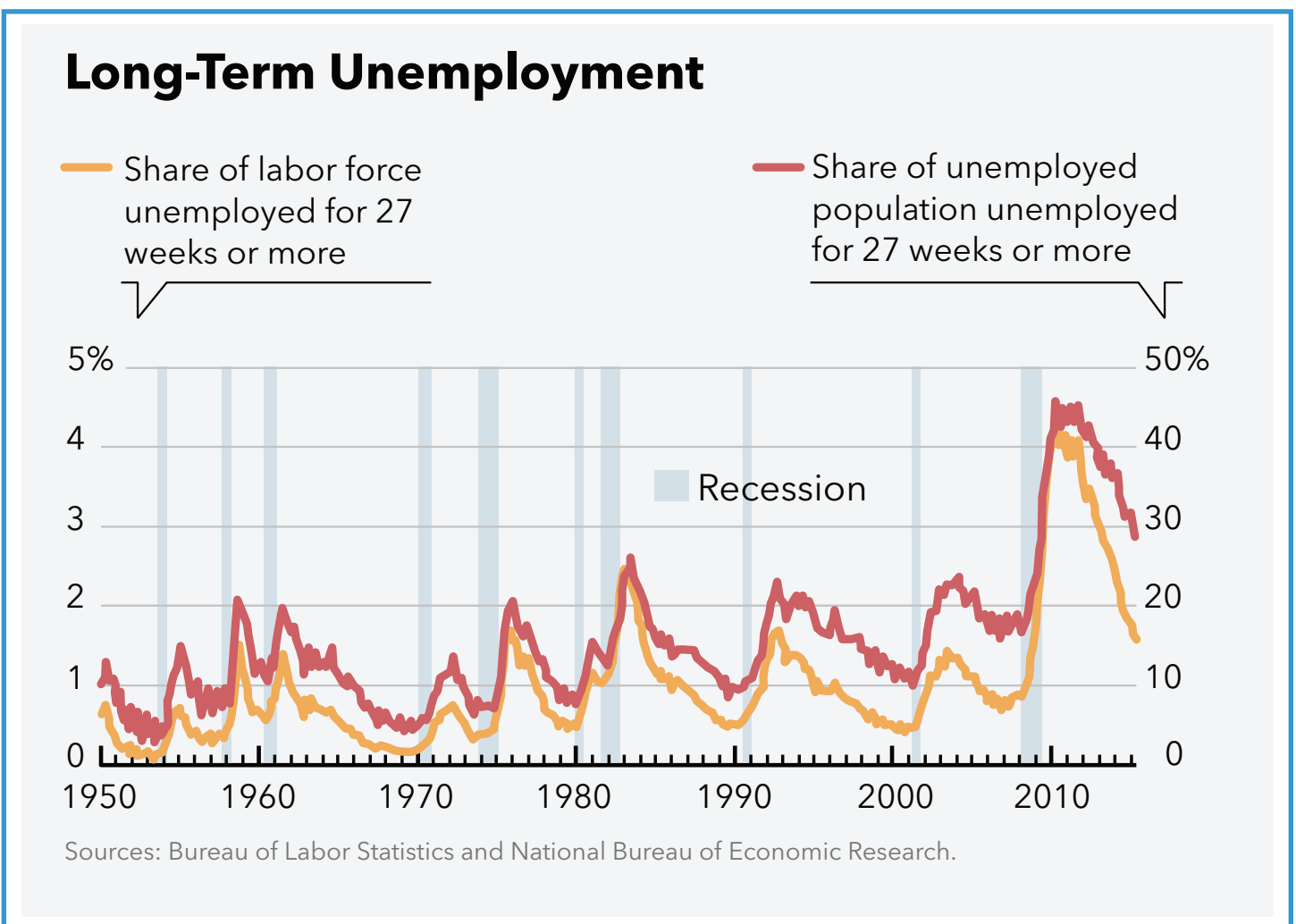
The long road to recovery that still must be traveled.

In May 2015, the U.S. Labor Department published employment figures indicating that the more commonly cited unemployment rate had reached a near seven-year low of 5.4%.¹⁵ But a closer look at employment data reveals a national employment market still struggling to recover from the 2008 crash. In addition to taking the broader U-6 rate into consideration, assessing the *quality* of jobs available to most Americans, along with other benchmarks such as long-term unemployment, indicates that we still have a long road to recovery in front of us.

Long-term unemployment paints a particularly grim present-day picture.

Long-term unemployment, referring to people who have been looking for work for 27 weeks or more, reached significantly higher levels during the Great Recession and has persisted much longer than in any previous period dating back to the 1940s. The worst previous episode was in the early 1980s, when the long-term unemployment share peaked at 26% and the long-term unemployment rate peaked at 2.6%. Yet in the 1980s, one year after peaking at 2.6%, the long-term unemployment rate dropped to 1.4%, compared with the current rate of 1.6% more than five years after the official end of the Great Recession.¹⁶

As of May 2015, more than 2.5 million Americans were considered long-term unemployed, accounting for almost three in 10 (28.6%) unemployed Americans. Based on current numbers, the average length of unemployment is about seven months, nearly double what it was pre-recession.¹⁷ As the chart below illustrates, the share of unemployed population who are long-term unemployed approached 50% at the height of the Great Recession and to this day remains at historically high levels.



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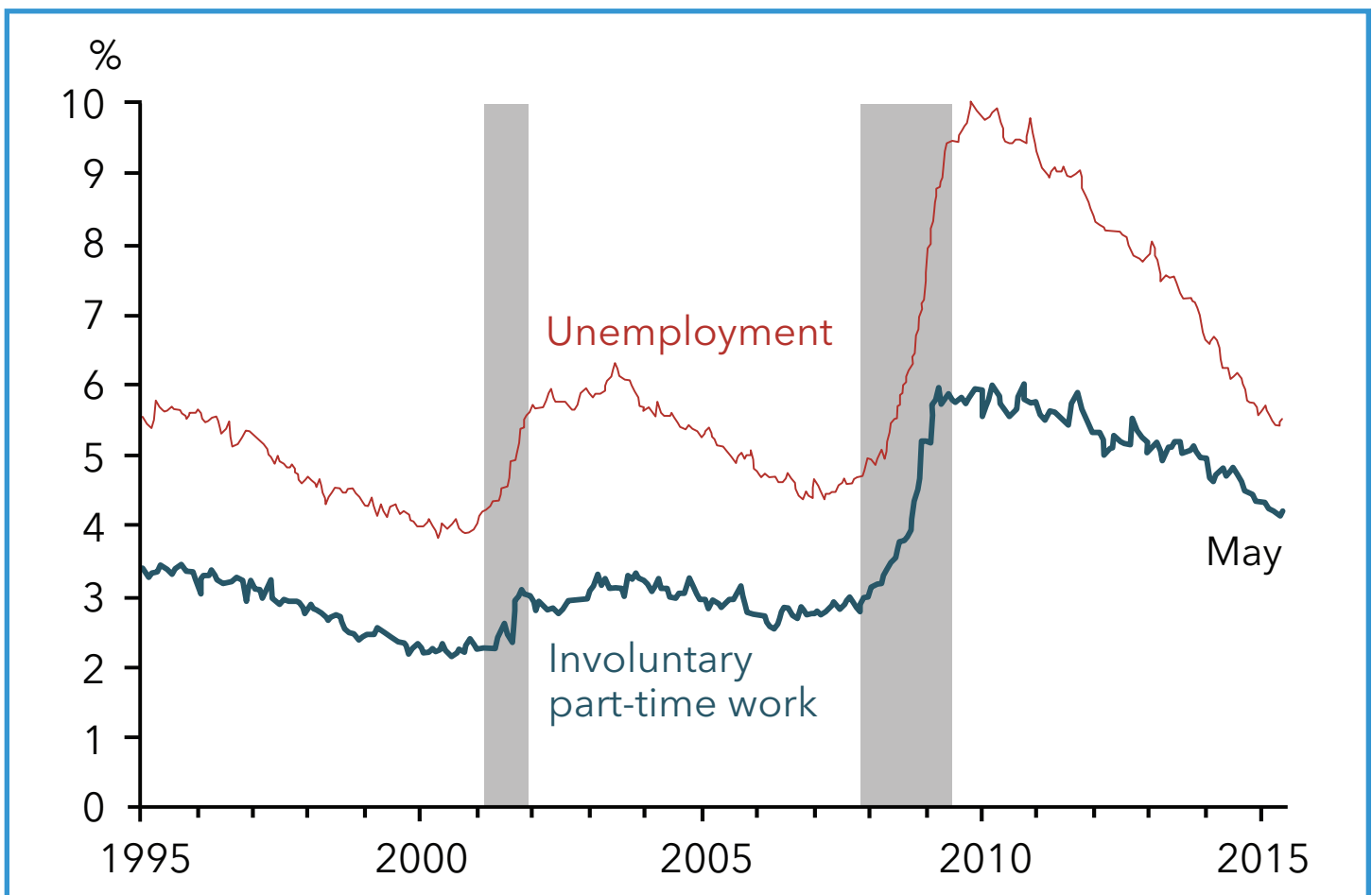
“This is involving millions of prime-age Americans who have dropped out of the work force. The question is, do we give up on those people?”

- Andrew Levin,
International Monetary Fund
(September 11, 2014)

Underemployment is way up, with over 17 million Americans working below their capacity.

Underemployment—referring to people who are stuck doing part-time work that isn’t commensurate with their education, experience, and skill level—is another significant problem that persists today. This “involuntary part-time work” drastically increased during the Great Recession, and has yet to return to pre-recession levels.

In the past, involuntary part-time work has tracked with the unemployment rate. But since 2010, as the chart below indicates, the rate of involuntary part-time work has not fallen in parallel with the unemployment rate.¹⁹ Currently, there are approximately 17.7 million Americans who are considered underemployed—double the number of officially unemployed Americans.²⁰



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A good job, as defined by Gallup, means working at least “30+ hours per week for an organization that provides a regular paycheck.” Unfortunately, in the wake of the crisis, only 44% of working-age Americans currently meet that basic threshold. **It would take 10 million new jobs** just to get that “good job” figure over 50%.^{22,23}

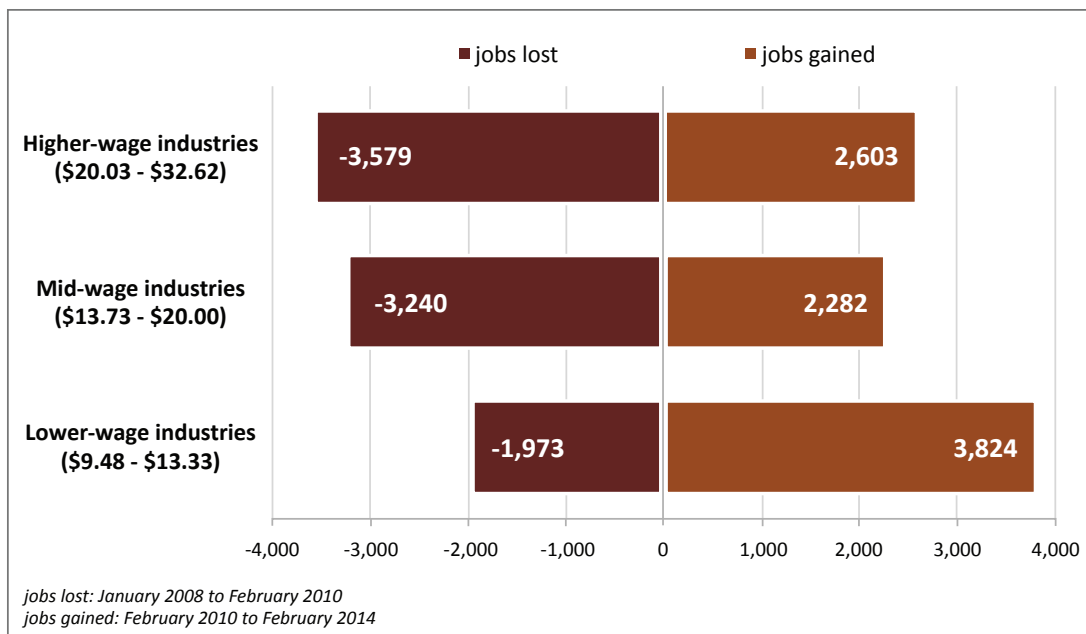
“Today, some 48% of college-educated men and women have jobs that don’t require the skills or knowledge acquired when earning an undergraduate degree . . . The chronic underutilization of education, skills, and human capital engenders workplace frustration and low morale.”

- James O’Toole,
Senior Fellow in Business Ethics at Santa Clara University
(excerpt from Strategy + Business, March 24, 2014)

Jobs that have been added back to the economy are not what they used to be.

It’s one of the defining stories of the post-crisis era: Millions of jobs with good pay and good benefits were lost and replaced by jobs with low pay and poor benefits. Today there are approximately two million fewer jobs in mid- and higher-wage industries compared to pre-recession estimates.²⁴ The strongest employment growth in recent years has largely been in low-wage, less skilled work. This isn’t a temporary phenomenon either, as the trend toward lower-wage jobs has persisted each year.

Figure 1. Net Change in Private Sector Employment (in thousands)

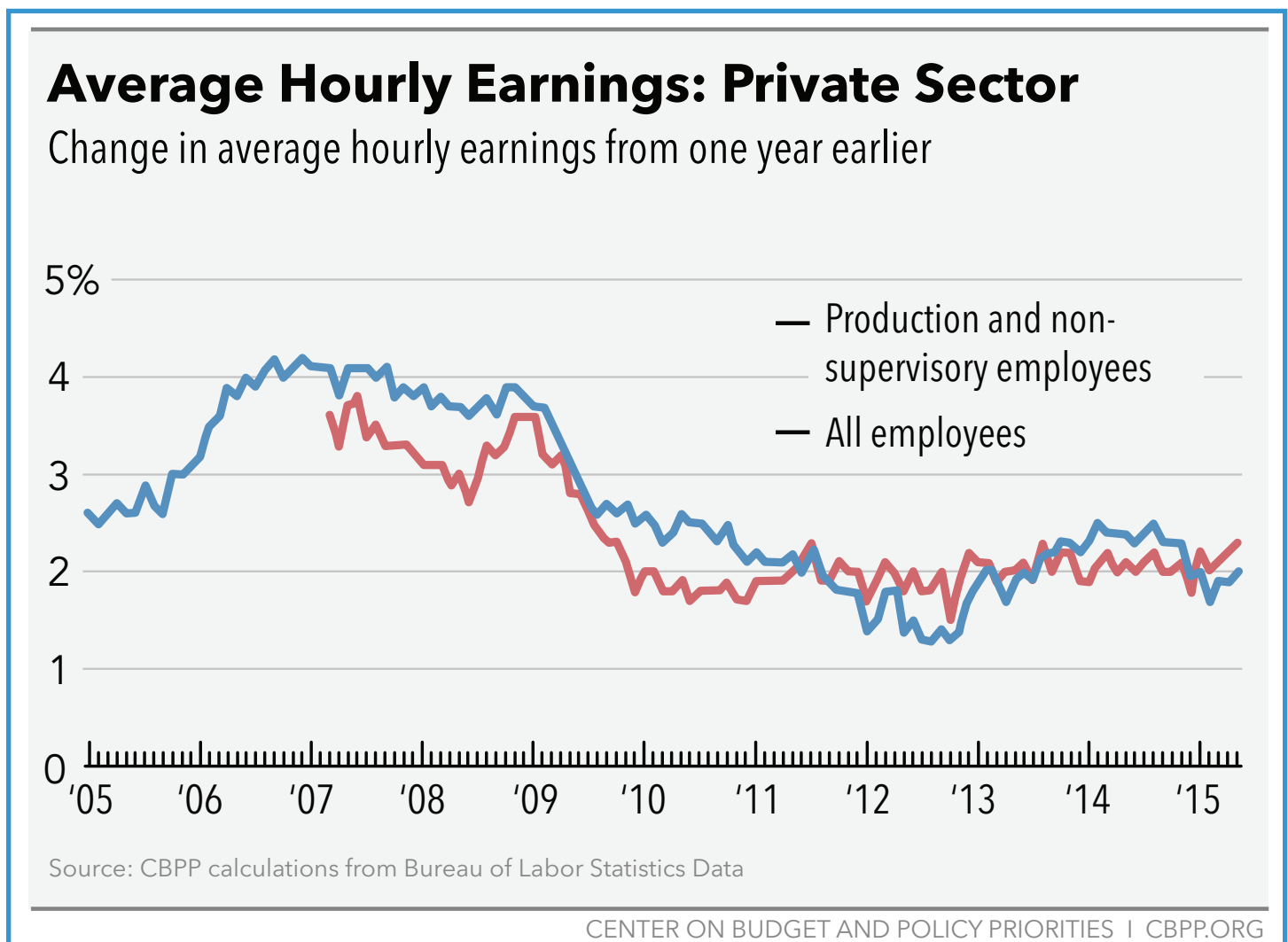


Source: NELP analysis of Bureau of Labor Statistics data, see Appendix A for details
Note: Wage ranges are updated from earlier reports to adjust for inflation and are in 2013 dollars. At the time of publication, employment data for disaggregated industries was only available through February 2014.

As explored later in this report, one of the groups hardest hit by the dearth in skilled positions is new graduates. While job prospects are better now than they were in the last five years, they are still dismal. College and law school graduates especially are not able to secure positions commensurate with their education, training, and credentials. The underemployment rate of those with college degrees employed below their level of credentials is 44.6%. Moreover, graduates can expect entry-level wages that, in inflation-adjusted terms, are lower than they were 15 years ago.²⁶

Job security, pay, and benefits take a hit.

The Great Recession has dragged down wage growth for the labor force at virtually all levels, from entry to experienced. Average hourly earnings of private sector employees have grown modestly throughout the recovery, averaging about 2% annually. Real, inflation-adjusted wages have hardly grown and have failed to keep up with increases in workers' productivity.²⁷ In April 2015, wage growth rose a slight 0.1% from March and just 2.2% year-over-year.



Aside from wage stagnation, many Americans are also worried about keeping their jobs. In a 2014 survey by MoneyRates, a quarter of respondents reported feeling that they have a significant chance of losing their job. Less than 40% felt highly confident in their job security.²⁹ Adding to the lack of confidence are peaks and valleys in monthly income: One in four people saw their incomes increase or decrease by 30% or more from 2013 to 2014.³⁰ A workforce strained by uncertainty and apprehension is not the foundation of a strong economy.

“Sadly, job security in the U.S. is quite low. Even those that were not laid off . . . realize[d] their jobs were not as secure as they thought they were. For some, the stress of that period left them shaken.”

- Michal Ann Strahilevitz,
Duke University Center for Advanced Hindsight
(May 8, 2015)

The various findings in this section paint a dismal picture of an employment market that offers fewer jobs, lower pay, worse benefits, and less security **than at any time dating back to the Great Depression.** The employment market is still in far worse shape than many on Wall Street would have us believe.³¹ The same dynamic is present in the recovering housing market, where promising and commonly reported topline data belie a much more worrying picture underneath.

III. CITIES LEFT BEHIND SNAPSHOT:

Cape Coral, Florida

Ground Zero for the Housing Crisis

The middle-class coastal city of Cape Coral, like cities in more than half of U.S. states, got swept up in the housing bubble of the mid-2000s. Home building and buying reached a particularly frenzied pace here, with home construction outpacing the city's ability to provide water and sewer services to new neighborhoods.³²

People were flocking to Cape Coral—everyone from snowbirds to speculators. And the banks, having been deregulated through legislation in the 1980s and 1990s, were free to get creative with financing and push subprime mortgages. As one speculator quipped, "All you needed was a pulse."³³ As long as credit was easy, buyers continued to take on more mortgage debt than they could handle. Demand was high.

During the boom years, home prices more than doubled.³⁴ According to the Florida Association of Realtors, the median house price in Cape Coral went up to \$192,100 by 2004, a 70% jump from \$112,300 four years earlier. In 2005, the median price went up 45% more, to over \$278,000.³⁵

But in 2007, housing prices fell 7.3% in a year, the seventh-worst decline in the nation, according to the National Association of Realtors.³⁶ And Cape Coral's entire economy was built on home construction. When it went south, construction companies, building suppliers, real estate agencies, and scores of other businesses went with it. In 2008, the unemployment rate shot from 5.7% to 9.2%.

Unemployment in the Cape Coral-Fort Myers metro area peaked at 13.3%. In 2014, it remained higher than the national average of 6%.³⁷

When making mortgage payments became impossible for many of its residents, Cape Coral earned the dubious distinction of **leading the nation in foreclosures. More than one in 20 mortgages was taken over by a lender.**³⁸

The city became a veritable ghost town. Abandoned houses, stripped bare by their financially ruined former owners, blighted once prosperous neighborhoods. The only ones smiling were the repo men and crime scene cleanup crews. Business was also good at the local soup kitchen: "I'm seeing . . . middle-class folks coming in who are on the brink of bankruptcy, losing their homes," said a worker. Many "are reaching out for the first time in their lives" for help.³⁹

When unemployment rises, so does crime. When revenue from property taxes slumps, so do public services. In Cape Coral, education suffered, as plans to build seven new schools in the county were scrapped.⁴⁰ Staff was eliminated, and municipal projects deferred or given up altogether.



The aftermath.

The Brookings Institution notes that over the course of the recession, Cape Coral's poverty rate rose by 5%.⁴¹ As of 2014, average home prices in Cape Coral still held only 55% of their value during the bubble.⁴² A 2014 study from WalletHub using 18 different metrics (including inflow of college-educated workers, number of new businesses, unemployment rates and home price appreciation) determined that in the wake of the Great Recession, **Cape Coral remains one of the least-recovered cities.**⁴³

IV. WEALTH:

Underwater Homeowners, Decimated Savings, Delayed Retirements

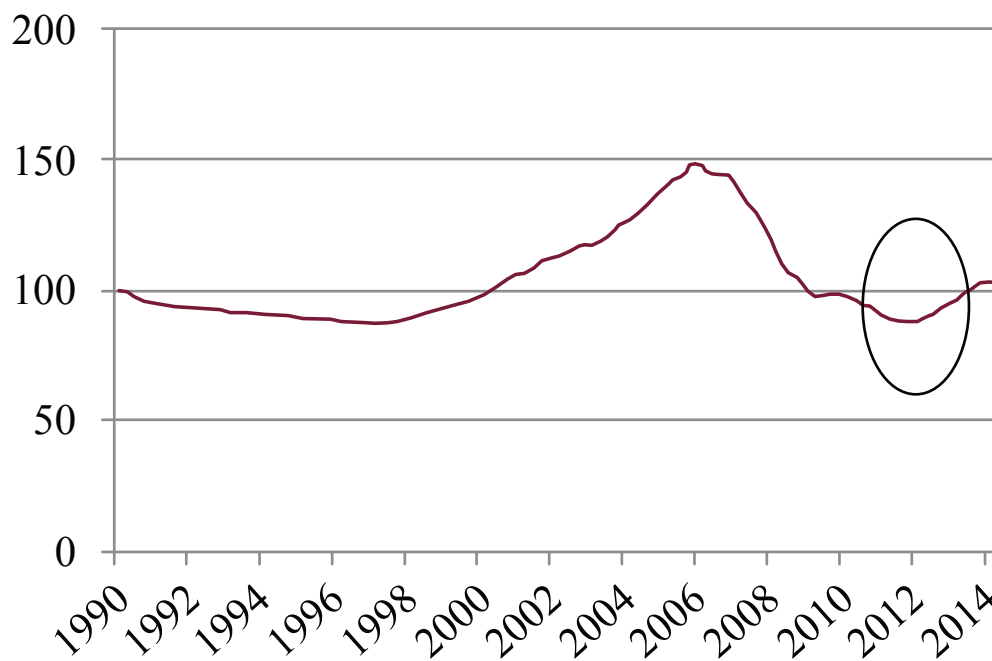
The collapse of the American dream.

Homeownership has long been a symbol of the American dream and the single largest investment and source of wealth for American families.

But in the years before the crisis, Wall Street turned America's housing market into a casino, with lenders peddling subprime mortgages and handing them to Wall Street to be sliced, diced, and packaged into risky securities that were sold and distributed to investors around the world.

When the U.S. housing market collapsed, it took the rest of the global economy down with it. Millions of (formerly) middle-class American families were the collateral damage, their dreams and economic security destroyed by a housing market that, for a time, seemed as if it would never stop falling.

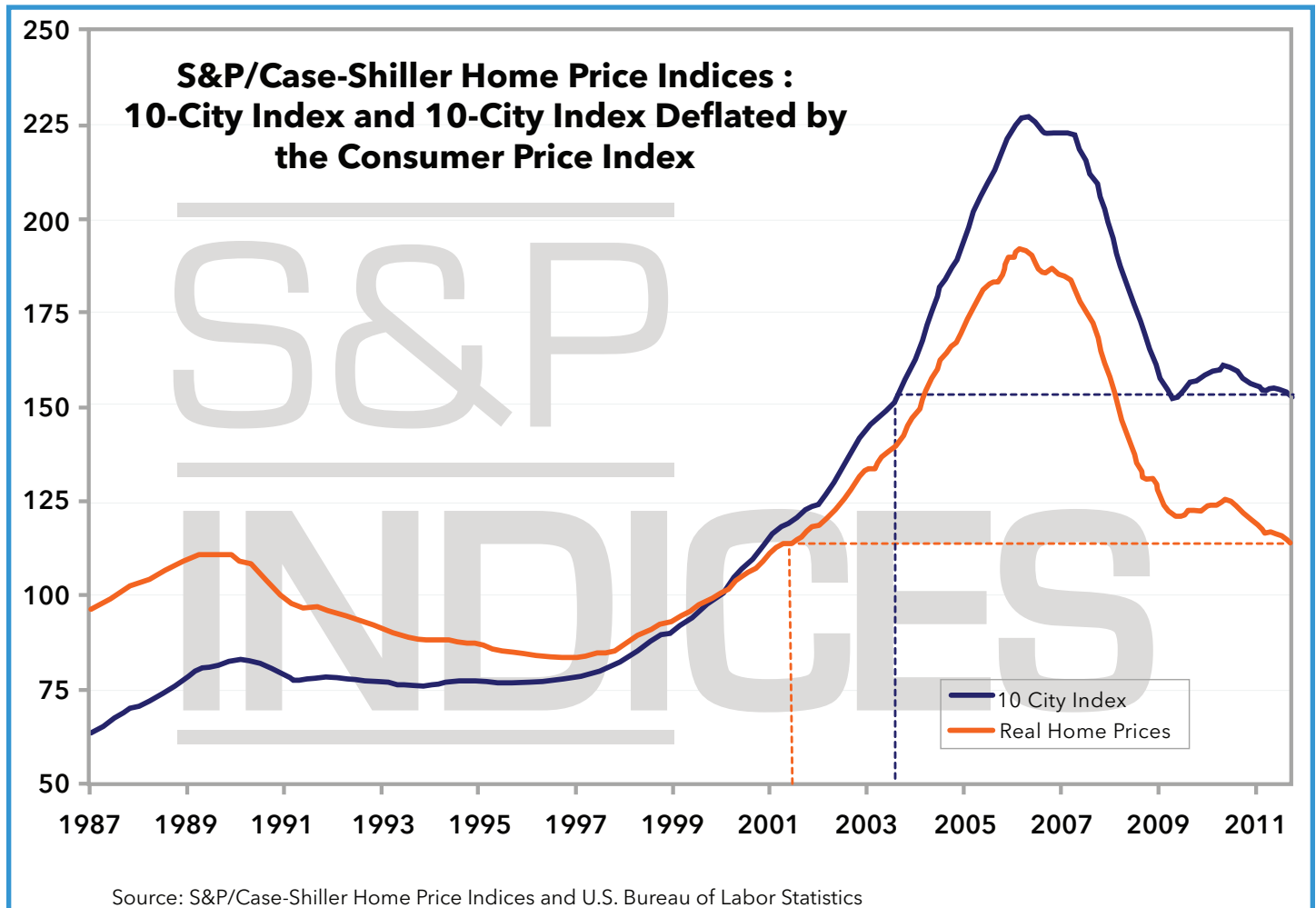
**FIGURE 4. INDEX OF AVERAGE U.S. HOUSE PRICES
(REAL), 2000(Q1) - 2014(Q2)**



Sources: Authors' calculations based on U.S. Board of Governors of the Federal Reserve System, *Flow of Funds Accounts* (2009-2014); and U.S. Department of Commerce (2002).

- U.S. Board of Governors of the Federal Reserve System & U.S. Department of Commerce⁴⁴

The fall in housing prices was so steep that it touched virtually every corner of the country. According to David Blitzer, Chairman of the Index Committee for S&P, prices in 2011 dipped to 2001 levels:



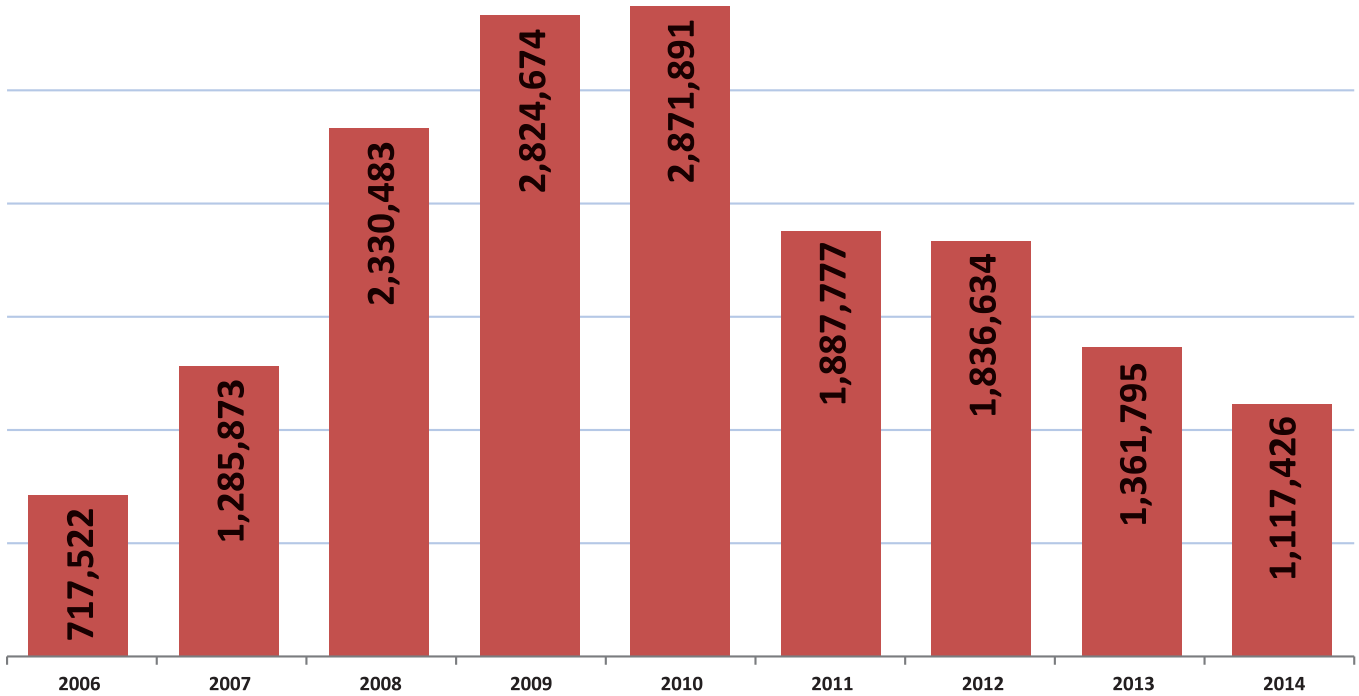
45

Many regions and communities still haven't recovered:

- Between January 2007 and December 2011, there were more than four million completed foreclosures and over 8.2 million foreclosure starts.⁴⁶
- Since 2007, there have been more than 16 million foreclosures in total.

Historical Foreclosure Activity

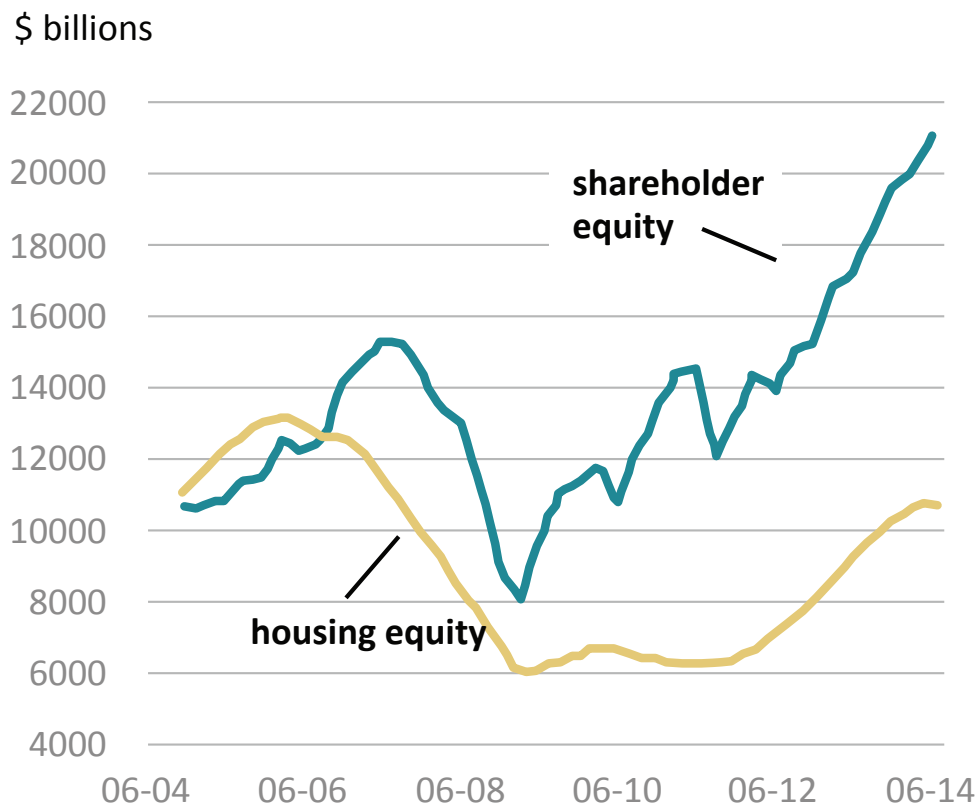
■ U.S. Properties with Foreclosure Filings



47

Between 2007 and 2009, housing prices fell by a third (in the largest metropolitan areas), and the Dow Jones Index lost half its value. Unfortunately for the struggling middle class, the housing market has been much slower to rebound than the stock market. By mid-2013, the stock market returned to pre-recession levels, but home prices were still 20% below their value prior to the crisis.⁴⁸

Exhibit 8: Incredible Wealth Creation, But Housing Equity Lagging



Source: Federal Reserve Board, Morgan Stanley Research

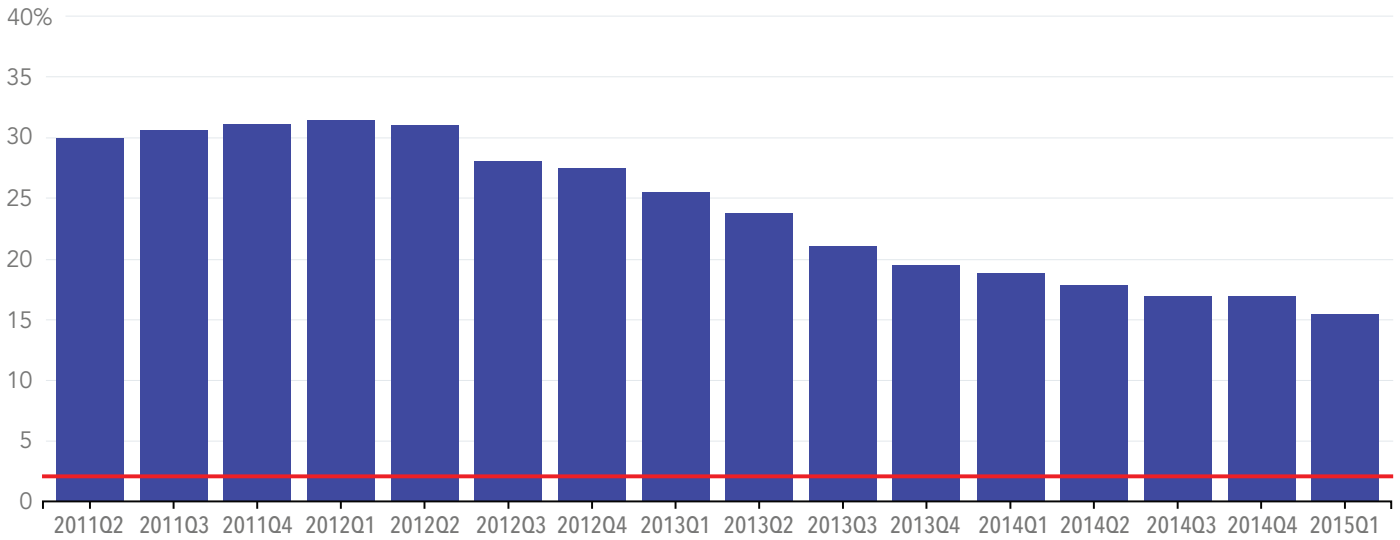
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A historically high 8 million Americans are still facing an uphill climb as they dig out from underwater mortgages.

According to a June 2015 report from Zillow Inc., the share of mortgages that are underwater is 15.4%, the equivalent of nearly 8 million homeowners. While this is down from a post-crisis high of 31.4% in 2012, it is still far in excess of historical averages. On top of these historically high levels, the pace of improvement has stalled over the past year, as demonstrated in the following chart. In fact, the decline in underwater mortgages has plateaued at levels 8 to 10 times the rate a normal market should endure.⁵⁰

Underwater and Still Above Normal

Share of mortgages in negative equity has been halved in almost four years, but a long way from healthy



Line marks a “healthy” rate of underwater properties, according to Stan Humphries, chief economist at Zillow Group Inc. Data source: Zillow

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Lower-income and inner-city communities were hit particularly hard by the housing crisis, and for far too many of these communities, there has been no semblance of a housing recovery. For example, in Atlanta, 46% of lower-income borrowers are underwater, compared with just 10% of higher-income homeowners. Low-end homes are three times more likely to be underwater than high-end homes nationally.⁵² The 2014 report “Underwater America,” published by the Haas Institute, identified the 395 zip codes with the highest rates of underwater homes. In nearly two in three of these zip codes, African Americans and Latinos made up at least 50% of the population.⁵³



Another concern of many economists is the negative equity that a significant portion of those homeowners are facing, with seemingly no hope in sight. About half of the approximately 8 million homeowners currently underwater owe the bank at least 20% more than their homes are worth.⁵⁴

The overwhelming majority of these individuals played by the rules in pursuit of the American dream—they worked hard and paid their bills on time, yet they were crushed with mortgages that now exceed the value of their homes through no fault of their own.

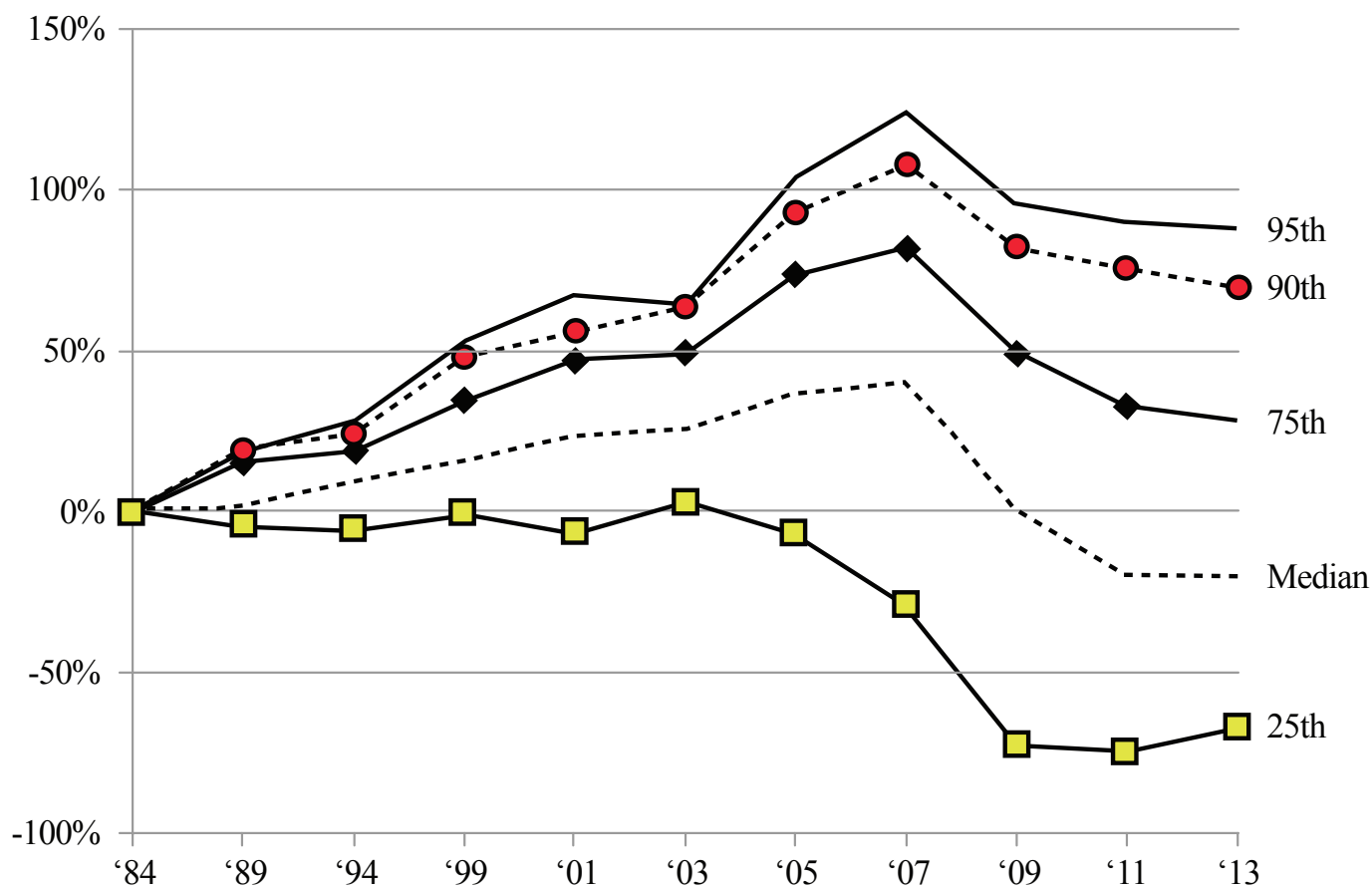
Yet, millions of Americans continue to pay their underwater mortgages month after month rather than walk away from their responsibilities—a stark contrast to the Wall Street bankers who wrote off the worthless investments they created, received massive government bailouts, paid themselves handsome bonuses, and went back to business as usual.

“The wealthiest Americans have recovered much more quickly than those without investments in the stock market, which is a major reason why income inequality in America is now worse than it’s been at any time since the Great Depression.”

- Federal Reserve Board,
Morgan Stanley Research
(2014)

As the chart below indicates, American inequality has been worsening for years. But, the financial crisis has worsened all of the trends contributing to this decline, and in the aftermath, those with the least have been hurt the most.

Figure 1. Change in wealth since 1984 for various percentiles (in 2013 dollars)



Source: Panel Study of Income Dynamics (based on 2013 early release data); calculations by the authors

“It is possible that the very slow recovery from the Great Recession will continue to generate increased wealth inequality in the coming years as those hardest hit may still be drawing down the few assets they have left to cover current consumption and the housing market continues to grow at a modest pace.”

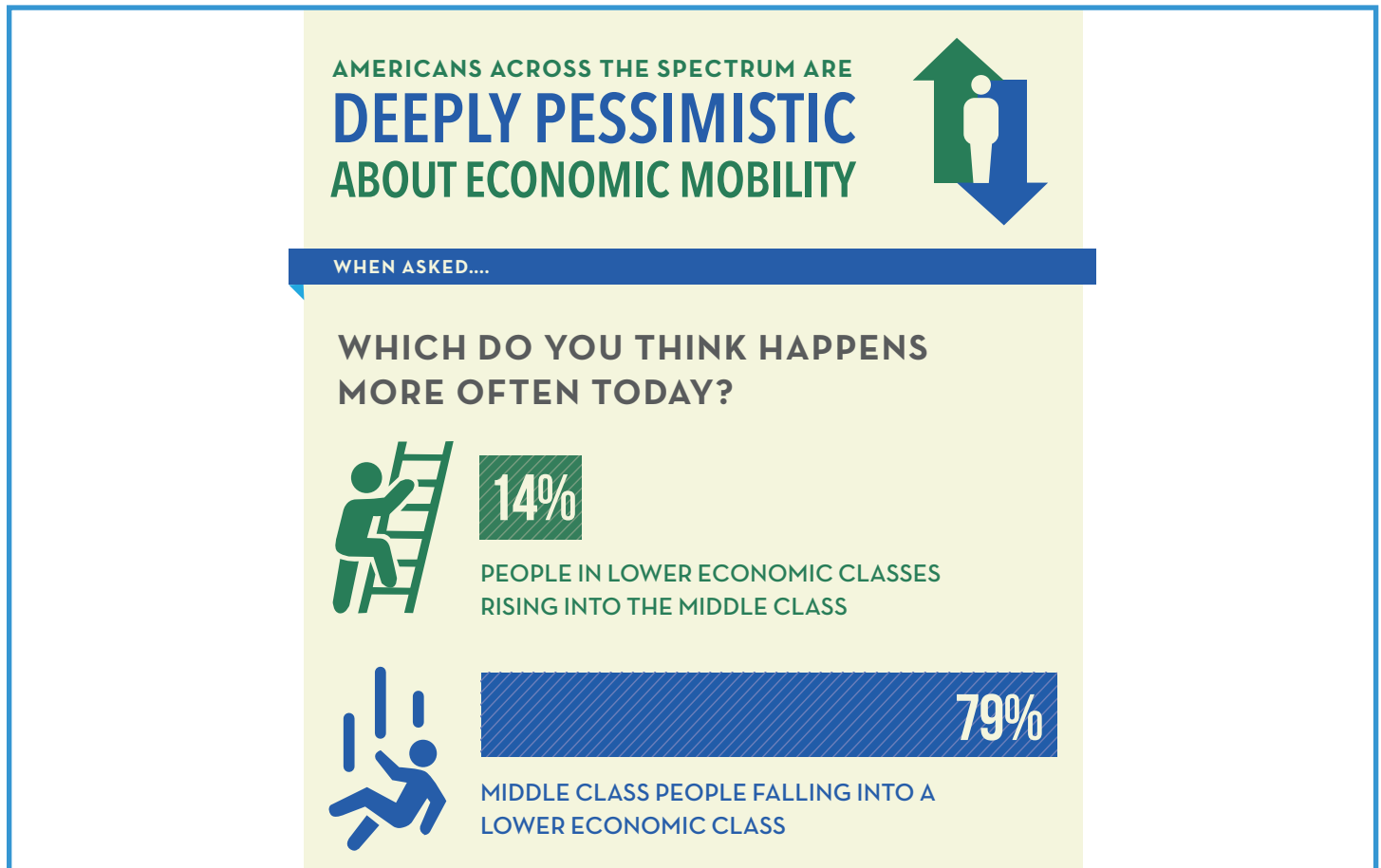
- **Wealth Levels, Wealth Inequality, and the Great Recession,**
Russell Sage Foundation
(June 2014)⁵⁶

Little confidence in the housing “recovery.”

Americans do not have confidence in the housing market. In fact, according to a 2015 MacArthur Foundation survey, more than six in 10 Americans say that we are “still in the middle” of the housing crisis or “the worst is yet to come.” Despite many talking about improvements in the economy, too many hardworking Americans are not seeing changes for the better in their own towns and local communities. A remarkable 55% say they have had to “make at least one sacrifice or tradeoff in the past three years in order to cover their rent or mortgage,” and more than two in 10 have either had to work more or get another job.⁵⁷



Unsurprisingly, Americans are pessimistic about the future, as illustrated by the following chart from the MacArthur Foundation:



- MacArthur Foundation, How Housing Matters⁵⁸

“Decent housing at an affordable price remains a challenge for an increasing number of Americans, even after the recession has formally ended. It is disturbing that people feel the American dream and prospects for social mobility are receding . . . People want and expect solutions to the housing crisis to be a higher priority for both national and local leaders alike.”

- Julia Stasch,
MacArthur Foundation President
(June 2014)

Retirement a distant dream for many.

In the depths of the Great Recession, with equity prices down by 50%, the total value of 401(k) plans (and/or IRAs) dropped by a whopping \$2.8 trillion.⁵⁹

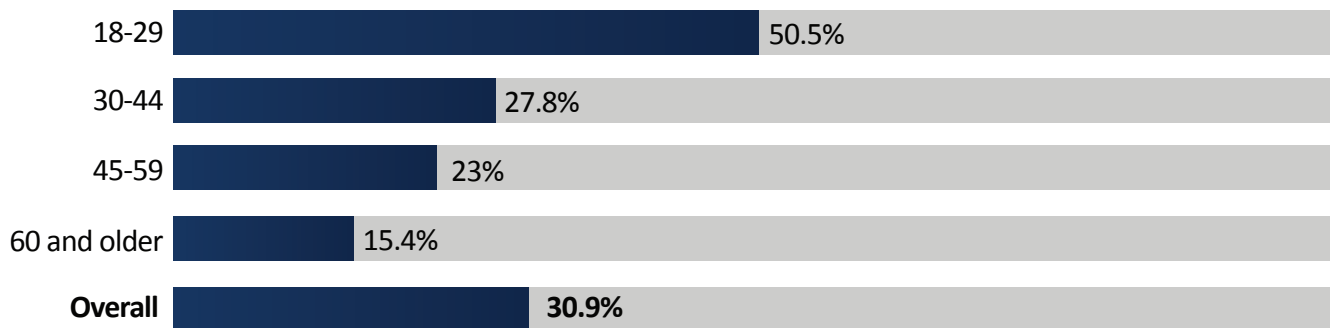
As the stock market has rebounded in recent years, Americans have seen headlines touting a robust recovery in retirement finances. The average retirement account was reported to have exceeded \$90,000 in 2014, a record.⁶⁰

But the average is just that—an average. The fact is that today, nearly one third of non-retired Americans have no retirement savings at all.

FIGURE 1

Nearly one-third of nonretired Americans have no retirement savings or pension

Percentage with no retirement savings or pension, by age



Source: Board of Governors of the Federal Reserve System, 'Report on the Economic Well-Being of U.S. Households in 2013 (2014)', available at <http://www.federalreserve.gov/econresdata/2013-report-economic-well-being-us-households-201407.pdf>. Figures above refer to the percentage of nonretired respondents who answered "No retirement savings or pension" when asked "What type(s) of retirement savings or pension do you (or your spouse/partner) have?"

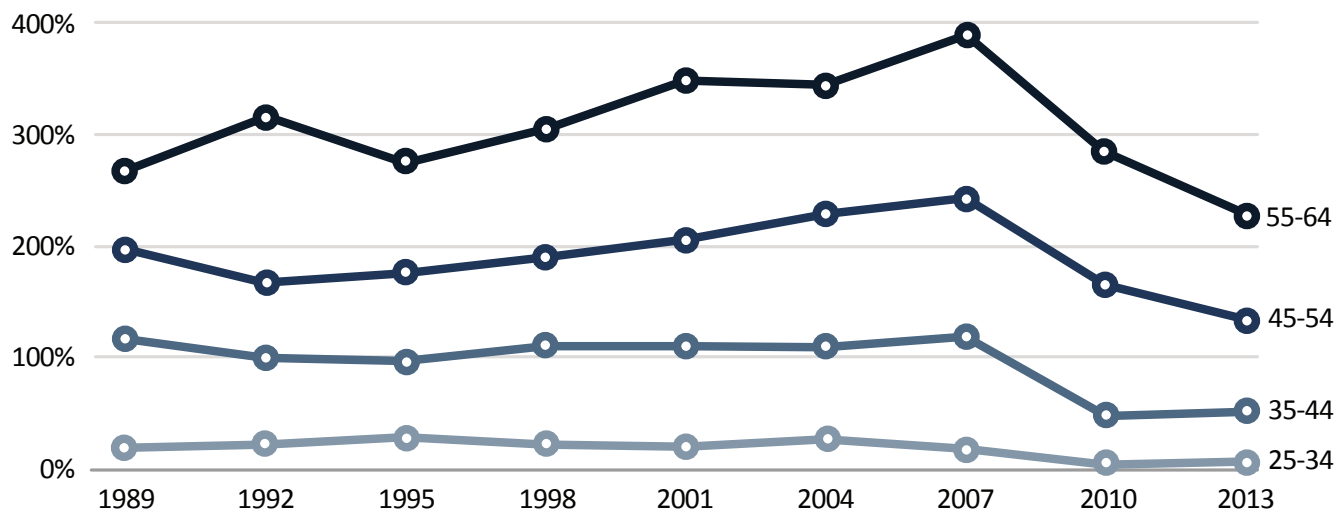
- U.S. Board of Governors of the Federal Reserve System, Report on the Economic Well-Being of U.S. Households in 2013⁶¹

Furthermore, the wealth-to-income ratio for Americans who are closest to retirement age has dropped precipitously since the recession, as insufficient incomes force them to dip into their retirement savings to cover living expenses. What would otherwise be tucked away for the future is being eroded for bills today. Before the recession, Americans nearing retirement had saved an amount equal to four times their annual salaries. Those aged 55 to 64 have seen an approximately 180% drop in their wealth relative to their income, and those aged 45 to 54 have seen a drop of over 100% starting from 2007—leaving them with only a third or a half of the wealth they had before the recession.⁶²

FIGURE 3

Despite retirement needs growing over time, households have not built up additional assets relative to their incomes

Median wealth-to-income ratios, by age and year



Source: Authors' calculations based on multiple years of data from Board of Governors of the Federal Reserve System, "Survey of Consumer Finances," available at <http://www.federalreserve.gov/econresdata/scf/scfindex.htm> (last accessed November 2014). The sample only includes households under age 65 who indicate that they are not yet retired and does not include vehicle wealth.

- U.S. Board of Governors of the Federal Reserve System, Report on the Economic Well-Being of U.S. Households in 2013⁶³

Americans from every demographic group and of every age are worried about whether they will be able to retire. According to a survey conducted by ORC International, two thirds of those under age 50 and nearly six in 10 of those under age 30 are concerned.⁶⁴

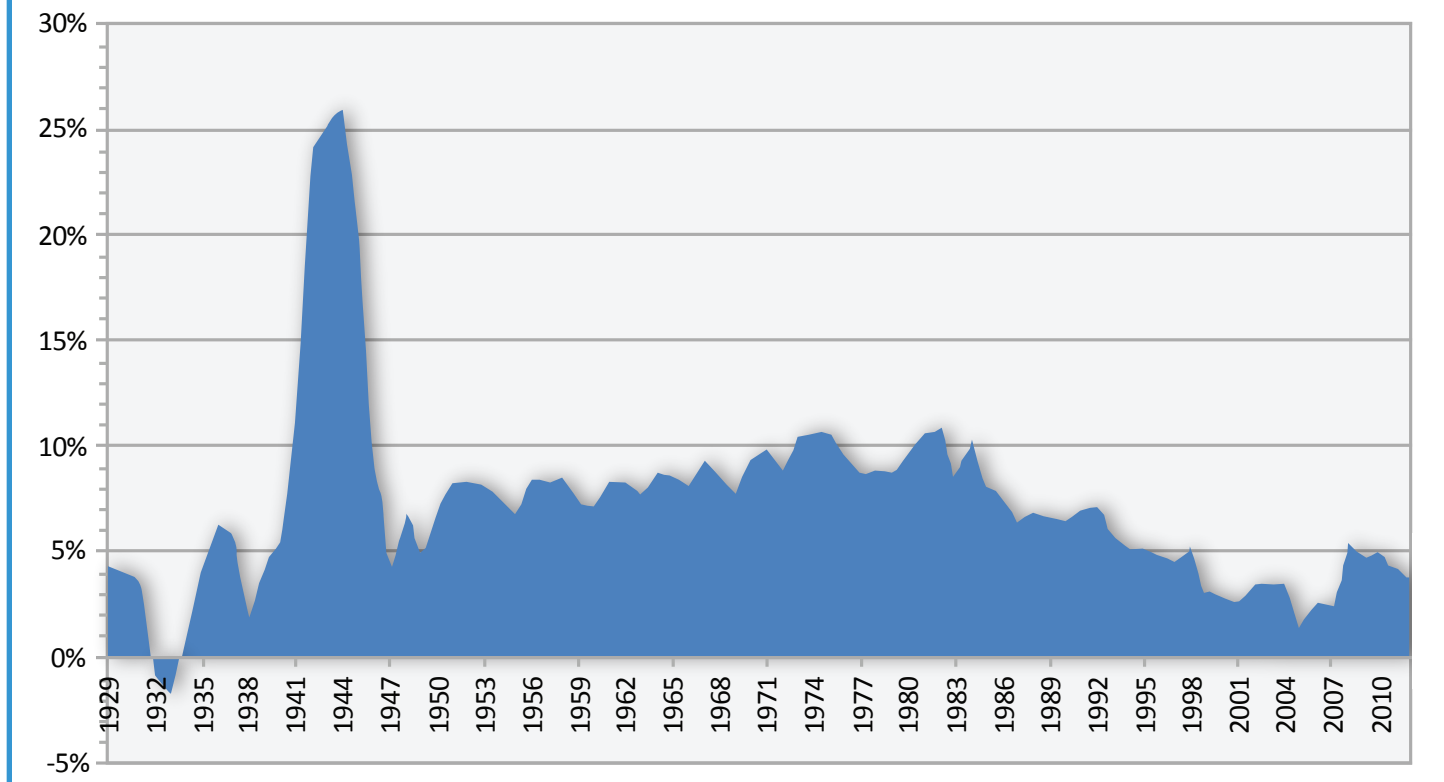
More savings doesn't mean more security.

In the years before the financial crisis, the U.S. personal savings rate dipped to lows not seen since the Great Depression, as Americans not only spent all the money they earned but also dipped into their savings and increased their borrowing to finance purchases. In fact, the 2006 personal savings rate was the lowest since Depression-era 1933.

In other words, even in 2006, when the economy was considered strong, many Americans were in a precarious financial position.

At the time, many overlooked this glaring issue, focusing instead on the rosy economic picture cast by the sky-high stock market and booming housing market. But as we now know, these positive indicators were a facade obscuring years of unprecedented risk-taking and criminality on Wall Street.

U.S. Personal Savings Rate



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“People are spending because the economy has been so good. Sooner or later, we think, the increases in value of the stock market and homes will not be great enough to reassure most Americans that they have enough savings, but right now, it hasn’t stopped.”

- Robert Samuelson,
Newsweek and Washington Post columnist
(quoted in 2007)

According to the Fed, the post-crisis era has been “a tepid recovery marked by below-average recovery levels of saving, consumption, and investment.”⁶⁶

Confirming the almost unprecedented damage of the 2008 crash, the sluggish recovery is atypical, considering the upswings in employment and savings that normally follow recessions. Just as the job market suffered greater employment losses with the Great Recession than others, the savings rate also dropped to an unprecedented level.

According to recent data from the American Enterprise Institute for Public Policy Research, "Relative to past cycles, the U.S. personal saving rate since 2009 has been low."⁶⁷ For instance, compared to the average annual savings rate following the 1981, 1990 and 2008 recessions, the year following the Great Recession had the lowest rate of savings.⁶⁸



1982: average personal savings rate is **11.5%**



1991: average personal savings rate is **8.2%**



2009: average personal savings rate is **6.1%**

Of course, this is to be expected: The Great Recession was the worst economic disaster since the Great Depression of the 1930s. The recovery, therefore, has been worse than all others since the Great Depression, which is the proper benchmark against which any "recovery" should be measured.

Millennials and minorities experienced significant loss in wealth and are struggling to get back on track.

Certain groups of Americans, including minorities and young adults, were hit by the Great Recession even more acutely than others. Both of these groups are more likely to report that they can't save or recover their losses. Pew Research found that "minority households . . . may have had to draw down their savings even more [than white households] during the recovery."⁶⁹

The persistent effects of the Great Recession continue to prevent younger Americans from saving and building their assets. Current data point to a sad reality for millennials and those under 35. In younger households headed by someone under 35, a record-low 7% own stock directly. That's a more than 76% decrease in under-35 stock ownership compared to the 30% figure found when the Fed first initiated its stock ownership survey in 1963.⁷⁰ Younger individuals and late entrants to the job market "can expect lower earnings and more instability," further hindering their ability to save and invest.⁷¹

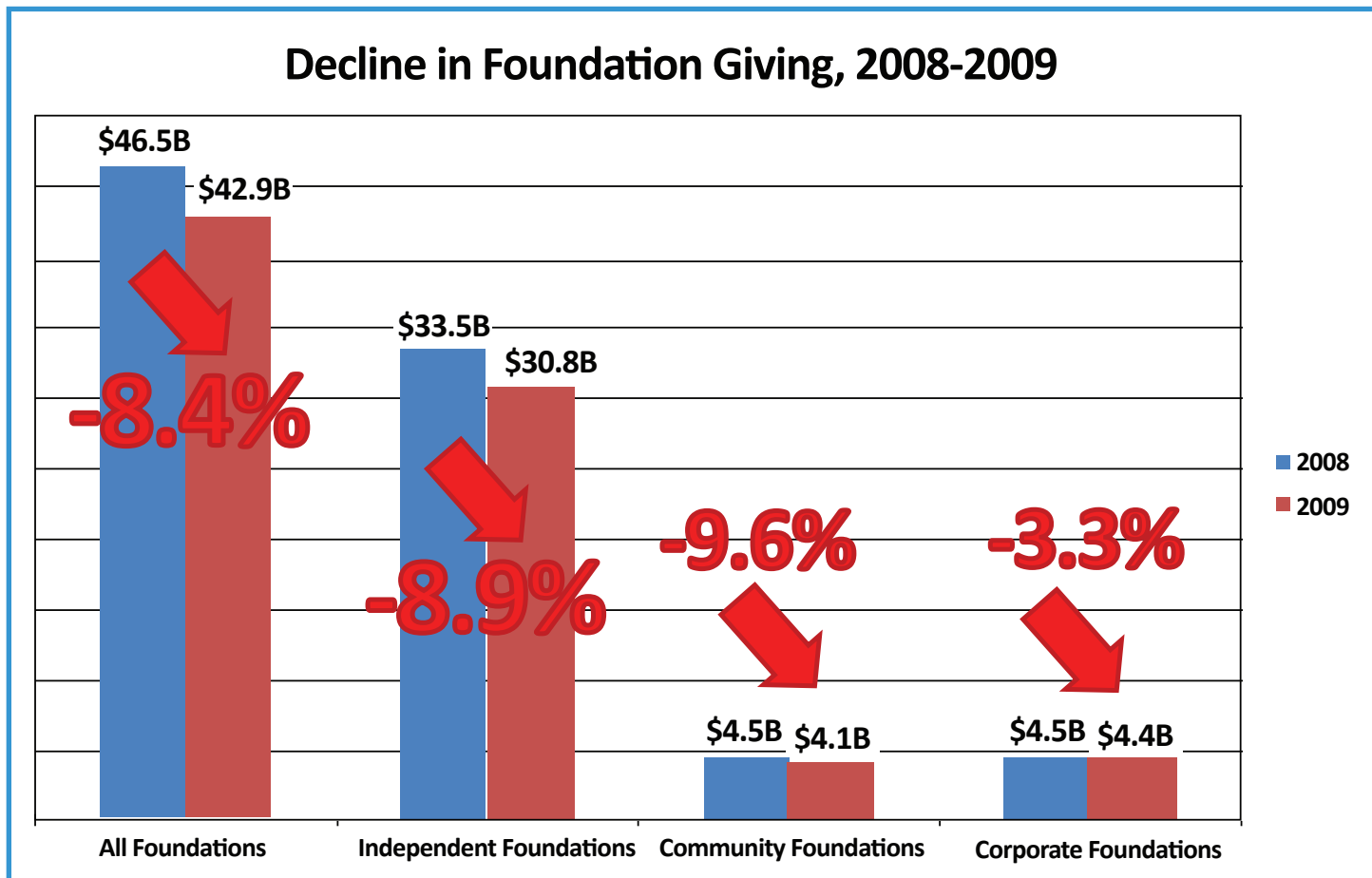
Years of philanthropic loss.

The latest report on charitable giving in 2014, released by Giving USA in June 2015, shows that annual philanthropy is finally on the rise again and will exceed pre-recession levels for the first time since 2007. The increased level of giving is encouraging; however it doesn't change the fact that charities and the many people that depend on them had to endure years of reduced giving and services, even for the most basic needs of food and shelter.⁷²

The aftermath of the financial crisis has had a significant negative impact on charitable donations. Between 2007 and 2008, the top 40 foundations in the U.S. lost a collective \$43,554,587,146 in assets. A look at the top 25 reveals a decrease in assets of 24% in 2008, with a median change of -28.4%.⁷³ According to IRS data, giving by individuals with incomes of \$200,000 or more fell by \$31 billion from 2007 to 2009.⁷⁴

“Melissa Berman, president and chief executive officer of Rockefeller Philanthropy Advisors, says charitable giving decline worst in 50 years.”

- Bloomberg News
(February 22, 2010)



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In recent years, charitable donations have consistently lagged behind the growing demand for services across the nonprofit sector. As a consequence of the financial crisis and Great Recession, nonprofit organizations have seen a steady increase in demand for their services from Americans who can no longer afford clothing, food, or shelter. According to the Nonprofit Finance Fund’s 2015 State of the Sector Survey, **76% of nonprofits nationwide reported an increase in demand for services—the seventh consecutive year that a majority have reported increases.** At the same time, more than half (52%) indicated they lacked the resources to meet demand. This was the third year in a row that at least 50% of nonprofits were unable to meet demand.⁷⁶

“The worst economic crisis since the Great Depression resulted in the biggest reduction in U.S. foundation giving on record. In 2009, the nation’s more than 75,000 grant making foundations cut their giving by an estimated 8.4%, or \$3.9 billion. This was by far the largest decline in foundation giving ever tracked by the Foundation Center.”

**- Foundation Center,
2010 Foundation Growth and Giving Estimates⁷⁷**

Looking forward to an uncertain future.

In the years since 2009, consumers have been spending substantially below the levels expected based on past economic recoveries, again due to the historic severity of a recession caused by a massive financial crash. Large wealth losses during the recession compelled Americans to cut consumption significantly, pay down debt as best they could, and begin to save more than they had in the recent past. This, in turn, helped push the savings rate back up, though not to the levels seen in earlier post-crisis periods.

While a modest increase in the post-crisis personal savings rate may seem to be a positive, it actually speaks to the profound uncertainty faced by many families. Seeking to protect what little wealth they have, Americans are cautious not only about their spending but also about how they save and invest their money. They therefore choose safer vehicles in which to entrust their money, with the typical household opting to place more in safer, lower-yielding savings, money market, and CD accounts, rather than riskier, higher-yielding vehicles. Such behavior earns less in returns in the long run.⁷⁸ Thus, they have been doubly victimized: First, their economic security and savings vanished, and then as they began to rebuild, they couldn’t get a decent return due to the historically low rates implemented by Fed policy.

Americans also report the desire to remain liquid should they face hard times again. According to the Survey of Consumer Finances conducted by the Fed, “the most frequently reported motive [for increased savings] was liquidity-related (35.2% of families), a response that is generally taken to be indicative of saving for precautionary reasons.”⁷⁹

This trend toward saving has ramifications for the overall economy. While saving to make up for losses is a rational strategy on an individual basis, it impedes a greater economic recovery that could generate more of the jobs that are so badly needed.⁸⁰

V. CHILDREN OF THE CRISIS: The Lost Generation

Young job market entrants were among the most deeply affected by the financial crisis. In 2010—two years after the crisis—nearly one in five 16- to 24-year-olds was without a job. **That's the highest unemployment figure in this group since the Census Bureau began reporting numbers in 1947.**⁸¹

This “lost generation” has faced countless obstacles to getting a foothold in the job market, and their struggle is far from over. In an effort to improve their prospects, many stayed in college or went to college rather than going into the job market, where there were no jobs. Unfortunately, many went to for-profit colleges where the costs were very high and the degrees were often of little value.

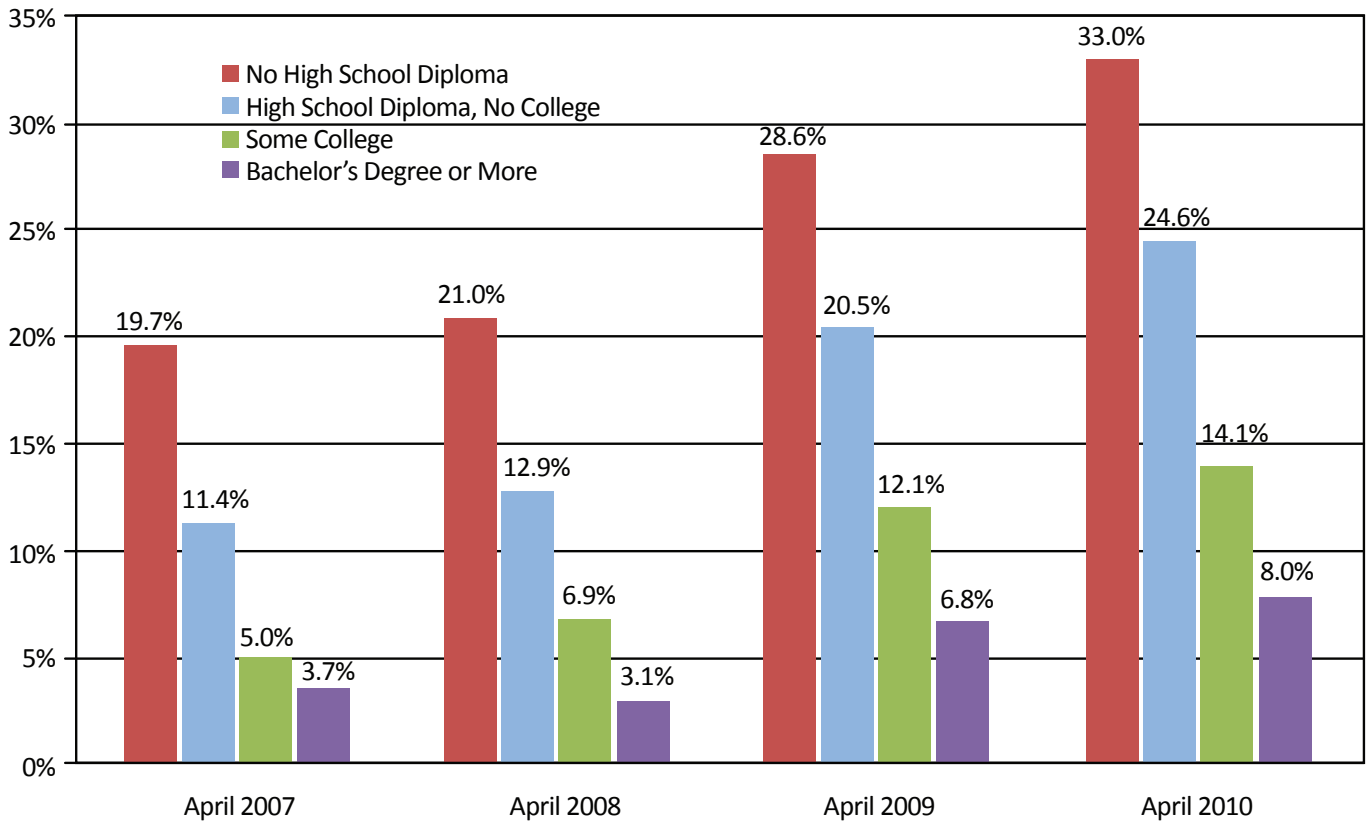
The average tuition at a for-profit educational institution is about six times higher than a community college and twice as high as a four-year public school.⁸² To pay for these staggering costs, 96% of students at for-profit schools take out loans, compared to only 13% of community college students, 48% of public college students, and 57% of nonprofit college students.⁸³

Today's younger American's are taking on more student loan debt than any generation before them. This debt is affecting both the professional and personal lives of millions by delaying getting their first real job, which compounds the damage by then delaying major life milestones such as buying a home and starting a family. It's also a threat to older generations, who need a large and growing workforce paying into social safety net programs such as Medicare and Social Security.

Increased investment in college isn't providing the desired return. In fact, this is the most overeducated and underemployed generation ever.

While those young Americans with a higher level of education experienced greater employment prospects post-2007 than their counterparts without a college degree, unemployment rates rose across the board, as demonstrated in the following chart.⁸⁵ The unemployment rate for 16- to 24-year-olds with a bachelor's degree more than doubled from 2007 to 2010.

Figure 3. Education Improves Employment Prospects for Young Workers
Unemployment Rate of 16-24 Year Olds, by Educational Attainment (Not Seasonally Adjusted)

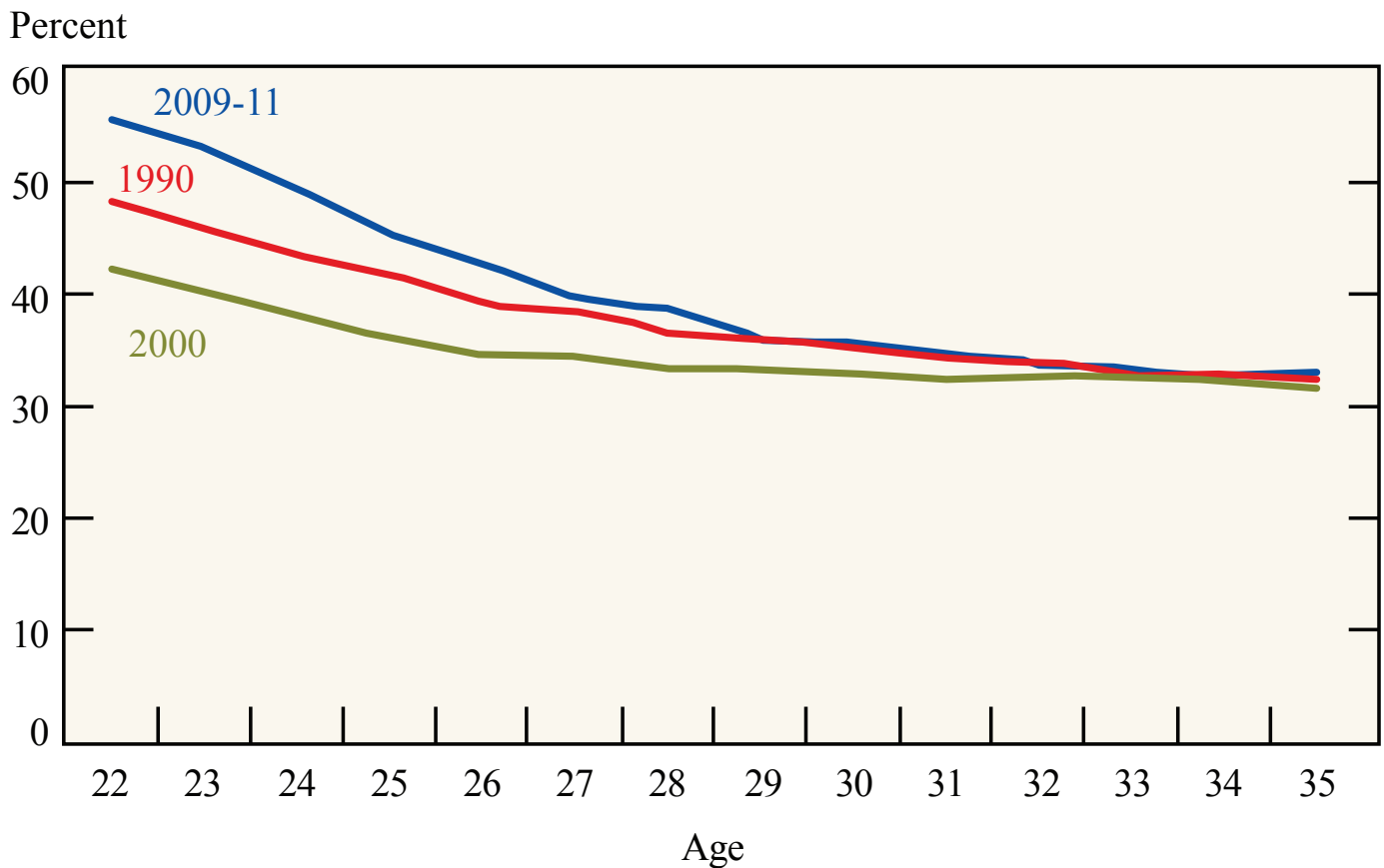


Source: Bureau of Labor Statistics, Household Survey.

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Those that are employed are frequently working in positions well below their level of education. In the 2009-2011 period immediately following the crisis, over half—56%—of 22-year-olds who just graduated ended up in jobs that did not require a degree, categorizing them as “underemployed.”⁸⁷ There were more underemployed college graduates in the years following the crisis than in 1990 and 2000, according to the Federal Reserve Bank of New York.⁸⁸

College Graduates' Underemployment Rate, by Age



Sources: U.S. Census Bureau, Decennial Census and American Community Survey, U.S. Department of Labor, O*NET

Notes: *College graduates* are those with a bachelor's degree or higher. All figures exclude those currently enrolled in school.

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It's an all too common story—a recent college graduate is forced to take on a temporary job to pay the bills (including student loans) while seeking a better opportunity. Nearly two thirds of underemployed workers were still stuck in their “temporary” jobs one year after graduating.⁹⁰

And according to a study from economists at the University of Maryland and the U.S. Census Bureau, as employers have created fewer new jobs, incumbent workers are taking fewer risks and not looking to switch jobs—even if it can result in a higher-paying opportunity—thus freezing the labor market and creating a higher barrier to entry for young workers.⁹¹ Additionally, post-recession graduates are now competing with more recent college graduates for the same entry-level positions.

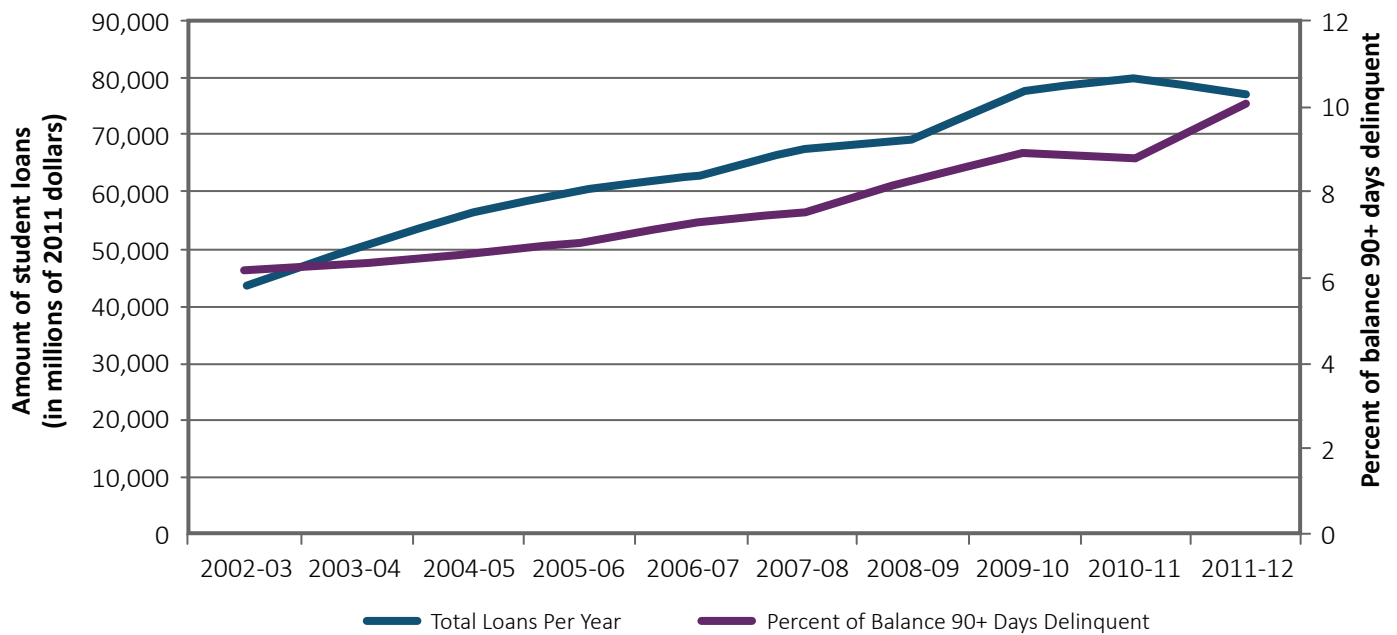
College degrees still matter, but come at a crippling cost.

Attaining a college degree does not guarantee a good job, but it is still important. A large gap exists in employment rates and earnings for American workers by education level,⁹² and people are making huge sacrifices to finance their education: The latest numbers show that there is more than \$1.2 trillion in outstanding student loan debt among more than 40 million borrowers, and that the average balance of these borrowers is \$29,000.⁹³

According to the Brookings Institution, nearly one in five American households had outstanding student loan debt in 2010.



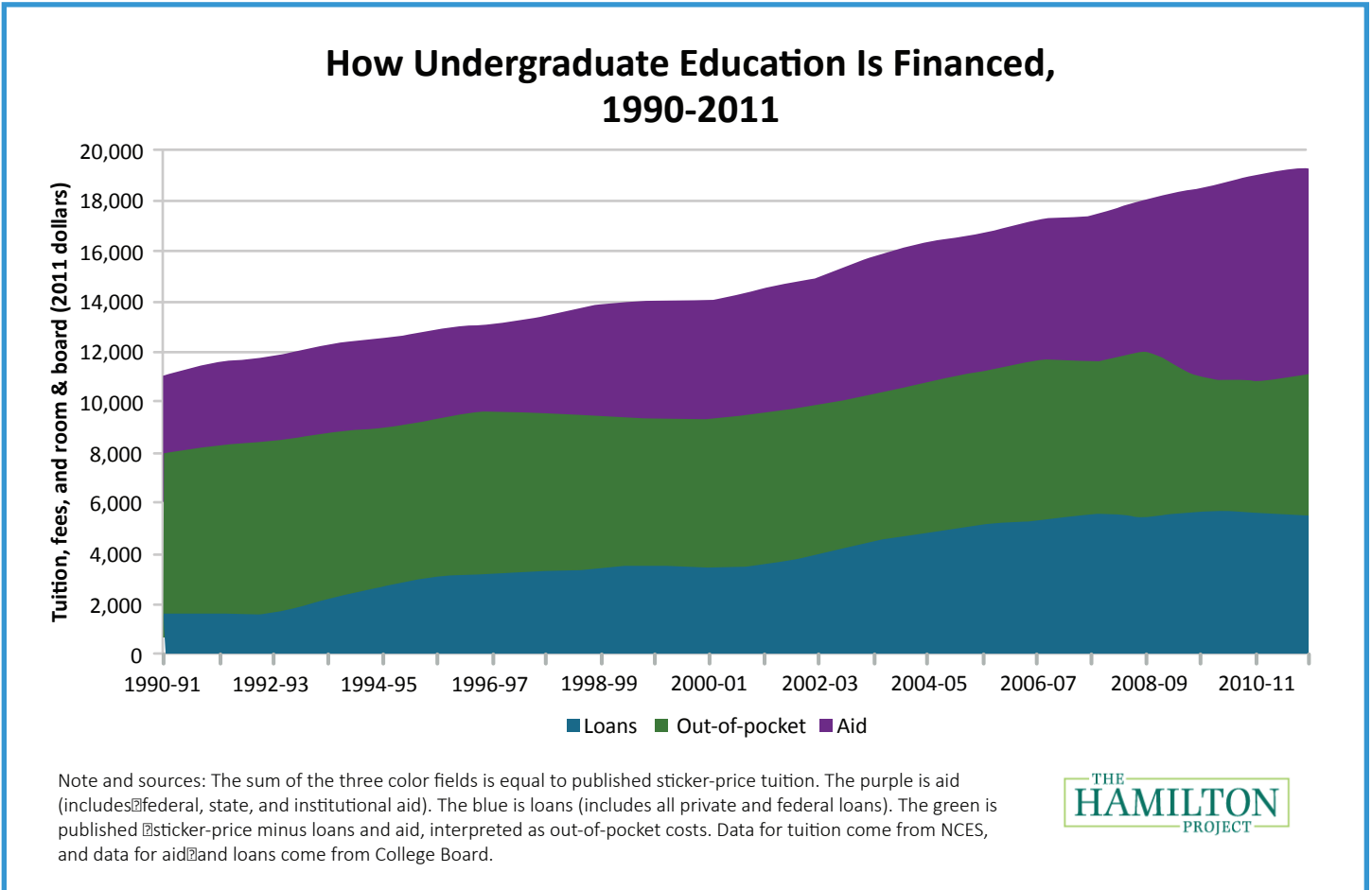
Total Student Loans Per Year and Student Loan Delinquencies, 2002-2012



Note and sources: Student loan delinquencies are measure as the percent of student loans that are 90-plus days delinquent relative to the total student loan balance. Data for total loans come from College Board, and data for delinquencies come from FRBNY Consumer Credit Panel



As the overall cost of college has increased, so has the amount people take out in loans to finance their education, as can be seen by the blue shading in the following graph. There are several potential explanations for this shift. As it has become more difficult after the crisis to obtain other forms of credit, including personal loans and second mortgages, families may have opted instead to take out more loans to finance college. The increased popularity of for-profit colleges, where students primarily use federal aid and student loans to finance their education, could also be to blame, according to the Brookings Institution. In addition, the lack of government revenues coupled with pressure from the deficit has resulted in cutbacks of grants and subsidies that would otherwise be available as an alternative or supplement to loans.

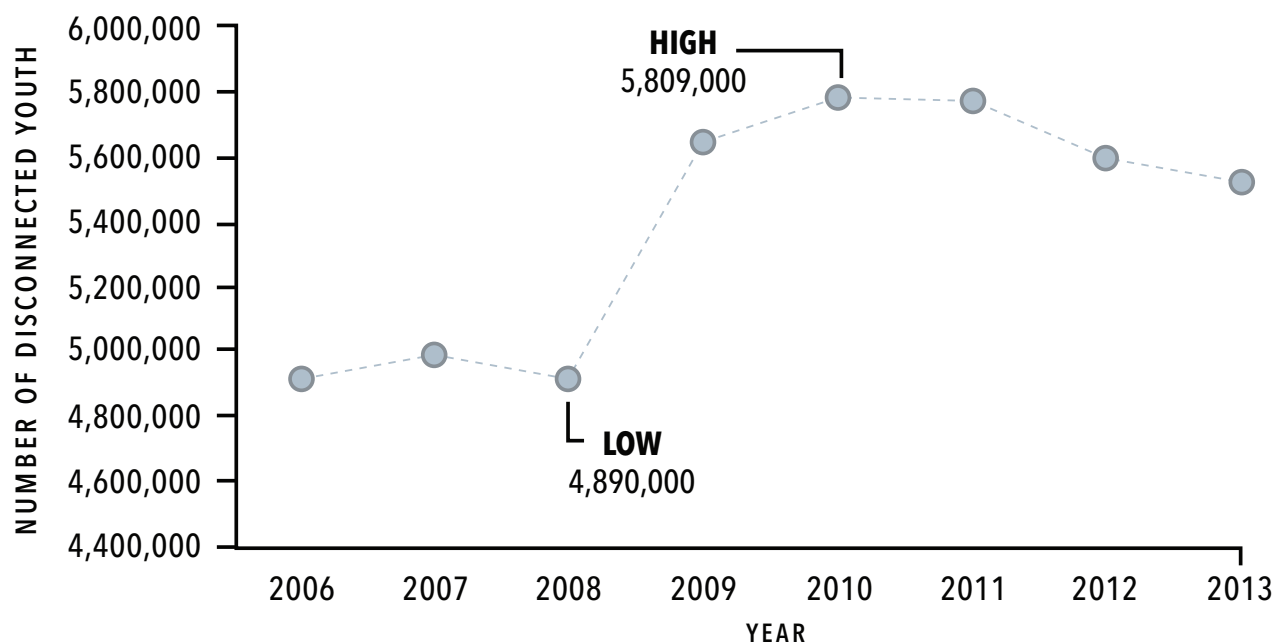


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As tough as it is for graduates, it's worse for their less educated peers.

While millennials as a “lost generation” face extraordinarily tough odds, “NEETs,” young people who are “neither employed nor in education or training,” have completely given up. They represent a particularly worrying trend, and have grown in number. Among 16- to 24-year-olds, 5.5 million—approximately one in seven—are disengaged and have completely opted out of working or going to school. According to Measure of America, a policy group at the Social Science Research Council, this is a significantly larger group than before the recession.^{96,97}

FIGURE 1 Youth Disconnection since 2006



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Disadvantaged minority populations, particularly African Americans and Latinos, have suffered the most. This has to do in large part to residential segregation, which was exacerbated by the flood of foreclosures made after the crisis. The more racially segregated a metropolitan area is, the higher the likelihood that minorities such as young blacks will be disengaged.⁹⁹

Examining data on foreclosure events, researchers at Cornell University, the University of Washington, and Georgia State University found disproportionate foreclosure concentrations linked to declining shares of whites and expanding shares of African American and Latino residents.¹⁰⁰ Between whites and African Americans, segregation grew by about 20%, and between whites and Latinos, segregation grew by almost 50%. This was in part caused by many whites leaving areas hit hard by home repossession, and more minorities moving into these areas, which now offered more affordable housing.¹⁰¹ Additionally, African American and Latino families were more likely to have their homes foreclosed. Previously diverse neighborhoods rapidly became more ethnically and racially homogenous during this time. These neighborhoods also tend to be stricken by high poverty and unemployment rates.¹⁰²

The fallout of the lost generation's lost years will negatively impact the U.S. economy for decades to come.

By simply coming of working age at the wrong time, millions of young people have had to pay a very high price in the short term, and perhaps for the rest of their lives. The "lost generation" faces an uncertain future for themselves as well as the next generation they bring into the world. Historically, it's

been proven that graduating in a poor economy can have a long-lasting effect on a person's career. In one study, Lisa B. Kahn of the Yale School of Management found that people who graduated during the recession in the early 1980s earned between 6 to 7% less in their first year of employment, and 2.5% less 15 years later, compared to their peers who graduated in better economic times.¹⁰³

This reduction in wages is one of the enduring consequences of unemployment, especially for prolonged periods of time. The longer this generation is unemployed, the more their earning potential suffers. First jobs help new workers gain experience and insight as to what they want in a career. Unfortunately, as more people end up underemployed in jobs beneath their capabilities, the foundation of their career is compromised and they fall behind on the path to a successful future—if they don't fall off completely.¹⁰⁴

To make matters worse, underemployment among young people has implications for those beyond this age group. Older generations, particularly baby boomers, rely on them to help fund their retirement and healthcare costs.¹⁰⁵ If young people are not earning decent salaries, their tax payments for Social Security and Medicare will be lower.¹⁰⁶ As for the effects of underemployment on long-term economic growth, it can only be expected that overall spending will decrease and impact nearly all other sectors of the economy.

The lower overall quality of jobs available, combined with high student loan debt, has created a recipe for economic disaster. While many would expect that graduates with high student loan debt would seek out jobs with higher salaries, it has been found that they are actually more risk-averse in their approach to switching jobs than non-borrowers. This is a big problem, as career risks and job-switching are usually required to grow personal income.¹⁰⁷

When it comes to their personal lives, those burdened with debt are also likely to make sacrifices when it comes to major milestones. In a 2013 survey of borrowers by American Student Assistance, 73% said they have put off saving for retirement, 43% said they delayed starting a family, and 29% said they have put off marriage.¹⁰⁸

This generation will be paying a steep price for the Great Recession for many years to come.

VI. SMALL BUSINESS:

The Crash Stalled America's Engine of Job Creation

Turning an idea into an actual revenue and job-creating business has always been an uphill climb. But in the years since the Great Recession, this climb has become steeper than ever before. The rate of new business creation in America is lower than any time in recent history.

Wall Street apologists would have you believe that small businesses' difficulties are caused by new regulations coming out of Washington in the post-crisis era. In fact, the collapse in U.S. entrepreneurial activity and new business creation began well before the passage of any major legislation and even before the 2008 crisis. But the decline of small businesses in America accelerated markedly with the destruction of jobs, homes, wealth, credit markets, and overall confidence in the economy brought on by Wall Street's 2008 crash of the economy.

The consequences for the broader U.S. economy are severe.

According to the U.S. Small Business Administration, small businesses (up to 500 employees) "comprise more than 99% of employer firms, generate half of non-farm private goods and services in the U.S. economy, employ about half of all private-sector workers, and have created around two-thirds of net new jobs in the past two decades."¹⁰⁹

The state of employment on Main Street is especially important to consider, not only because small businesses provide 55% of all jobs and 66% of all net new jobs,¹¹⁰ but also because their employment rate is a bellwether for that of the U.S. economy overall: During a downturn, small businesses suffer the highest job losses; in a recovery, small businesses also lead the way.¹¹¹

But small businesses certainly aren't leading this meager post-crisis "recovery." And until small business vitality is restored, it will be nearly impossible to restore economic security for millions of Americans or for the economy overall to recover.



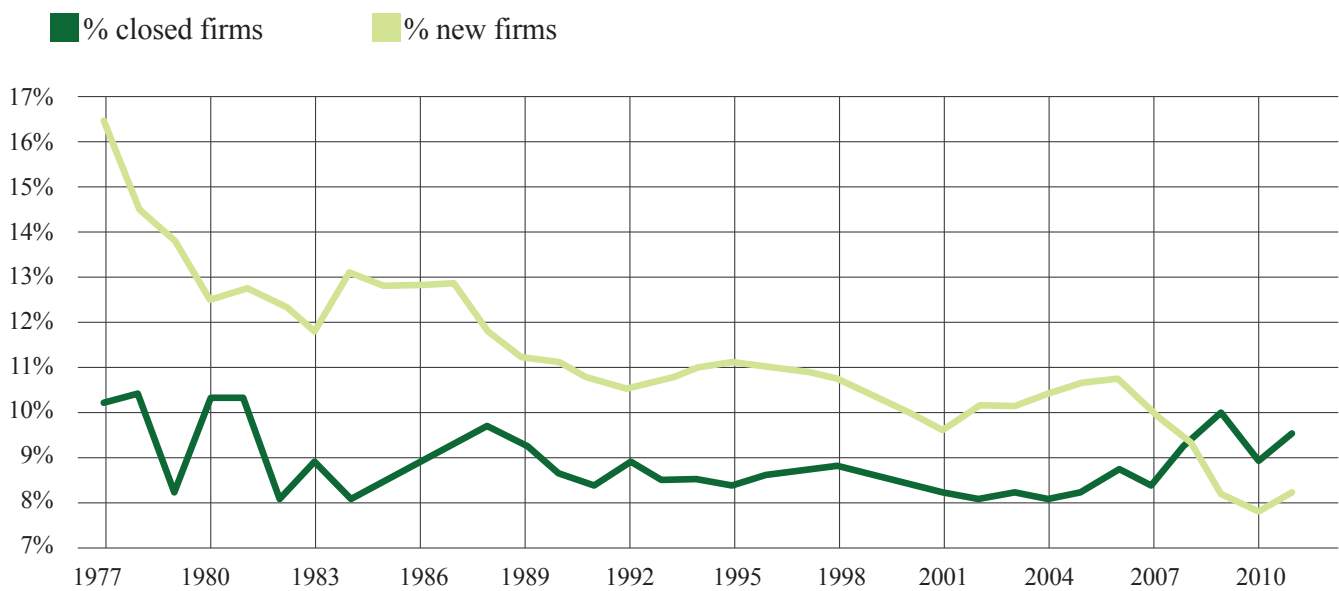
The entrepreneurship crash and decline in small businesses.

For decades prior to the Great Recession, the number of new businesses entering the economy moved along at a steady clip, outpacing the number of businesses exiting, yielding a net increase in new businesses and jobs.

Until 2008, that is, when startups took a nosedive. **For the first time on record, more businesses failed than were started.**¹¹² A study from the Brookings Institution found that by 2014, entrepreneurship had reached at least a three-decade low.¹¹³

BUSINESS CLOSINGS HOLD STEADY WHILE BUSINESS STARTUPS DECLINE

Business startups have been declining steadily in the U.S. over the past 30 years. But the startup rate crossed a critical threshold in 2008, when the birth rate of new businesses dropped below the death rate for the first time since these metrics were first recorded.



Source: U.S. Census Bureau, Business Dynamics Statistics

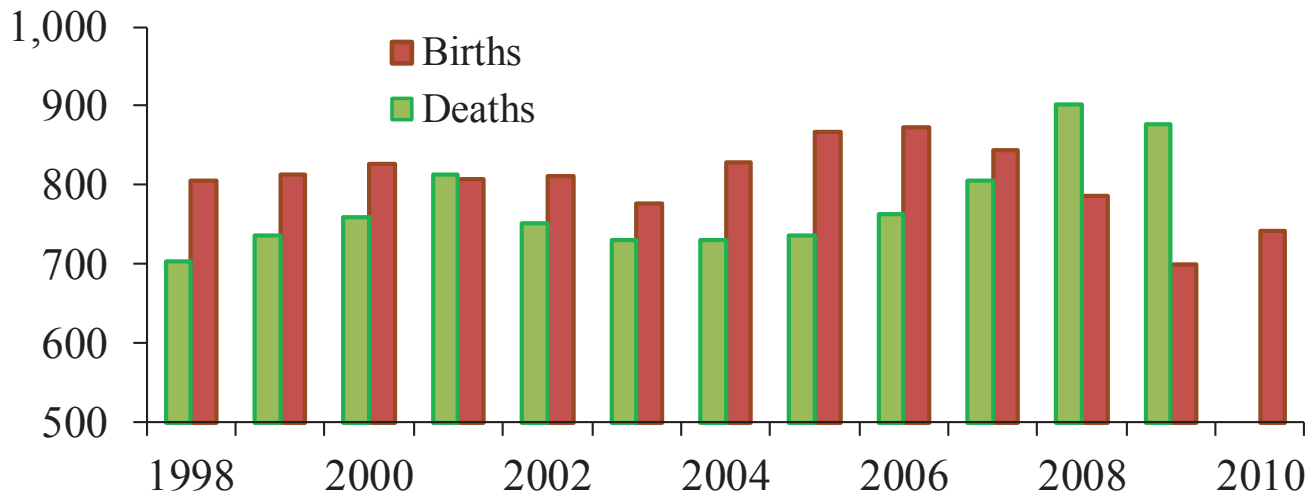
GALLUP

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The Small Business Administration notes that because of the financial crisis, between 2007 and 2010 “employer establishment births” (as opposed to existing companies opening new offices) dropped by 12%, from 844,000 to 742,000.¹¹⁵

Startups and Closures

(thousands of establishments, seasonally adjusted)



Source: Bureau of Labor Statistics, Business Employment Dynamics.

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That's 102,000 would-be employers that never opened their doors.

Where small businesses go, employment follows.

During any recession, businesses will close and the number of jobs lost from business closures will be greater than those gained from new business openings. But during the Great Recession, the number of jobs lost compared to jobs created was drastically higher than in the two economic downturns that preceded it.¹¹⁷

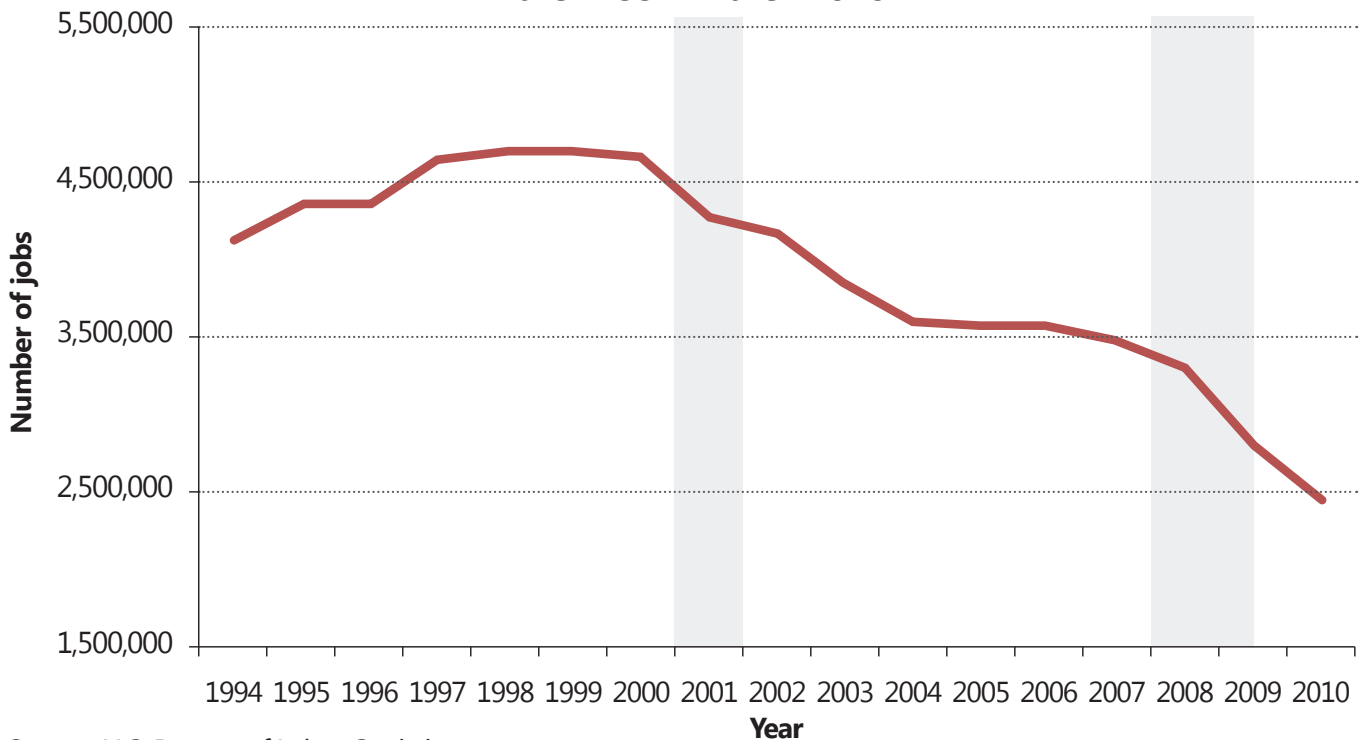
- 1990-1991 downturn: 103,000
- 2001 recession: 290,000
- **2007-2009 Great Recession: 800,000**

Furthermore, a much greater share of the net job loss was in small businesses—half, as compared to 10% during the 1990-1991 downturn and a mere 2% in the 2001 recession.¹¹⁸ This again highlights the historic nature of the Great Recession: It is worse than every recession since the Great Depression.

Small businesses that survived and startups that were added to the economy created fewer jobs. According to the Bureau of Labor Statistics, “the number of jobs created by establishments less than 1 year old has decreased from 4.1 million in 1994 [when this series began] to 2.5 million in 2010. This trend, combined with that of fewer new establishments overall, indicates that the number of new jobs in each new establishment is declining.”¹¹⁹



Chart 2. Jobs created by establishments less than 1 one year old, March 1994–March 2010



Source: U.S. Bureau of Labor Statistics

The number of jobs at small businesses decreased in part because small businesses themselves became smaller. In 2010 employment at startups was less than half (45%) what it was in 1999, when employment from startups peaked.¹²¹ This remains a persistent trend, as business owners struggling to pay their existing employees are in no position to hire new ones.

The May 2015 Wells Fargo/Gallup Small Business Index found that “just 16% of small business owners reported increasing the number of jobs at their company in the last 12 months, compared to 19% in January 2015, and 14% at this time last year.”¹²²

As the engine sputters, the U.S. economy grinds to a near halt.

The decline of small business is having ripple effects throughout the economy.¹²³

“A dynamic economy constantly forces labor and capital to be put to better uses, but recent evidence points to a U.S. economy that has steadily become less dynamic over time.”

- Ian Hathaway,
Brookings Institution
(May 2014)

The firm startup rate is a key component of business dynamism. When new business formation diminishes, it saps the innovative potential of the entire economy. The effect on job creation is akin to quicksand—and the downward trend in new business formation continues to pervade a broad range of industries, including technology, across all 50 states.

Why the precipitous drop in U.S. startups being born, surviving, and hiring? Small businesses need entrepreneurs with vision and determination. They need hard work. They need consumers who want what they’re selling. But first they need capital.

Family matters: financing the dream.

A 2009 study from the Kauffman Foundation, “The Anatomy of an Entrepreneur,” found that the majority of entrepreneurs come from middle-class families or what the authors call “upper-lower-class” families.¹²⁴ The middle class is the entrepreneur’s breeding ground and support system; therefore the strength of the middle class is strongly related to the rates of entrepreneurship and small business creation.

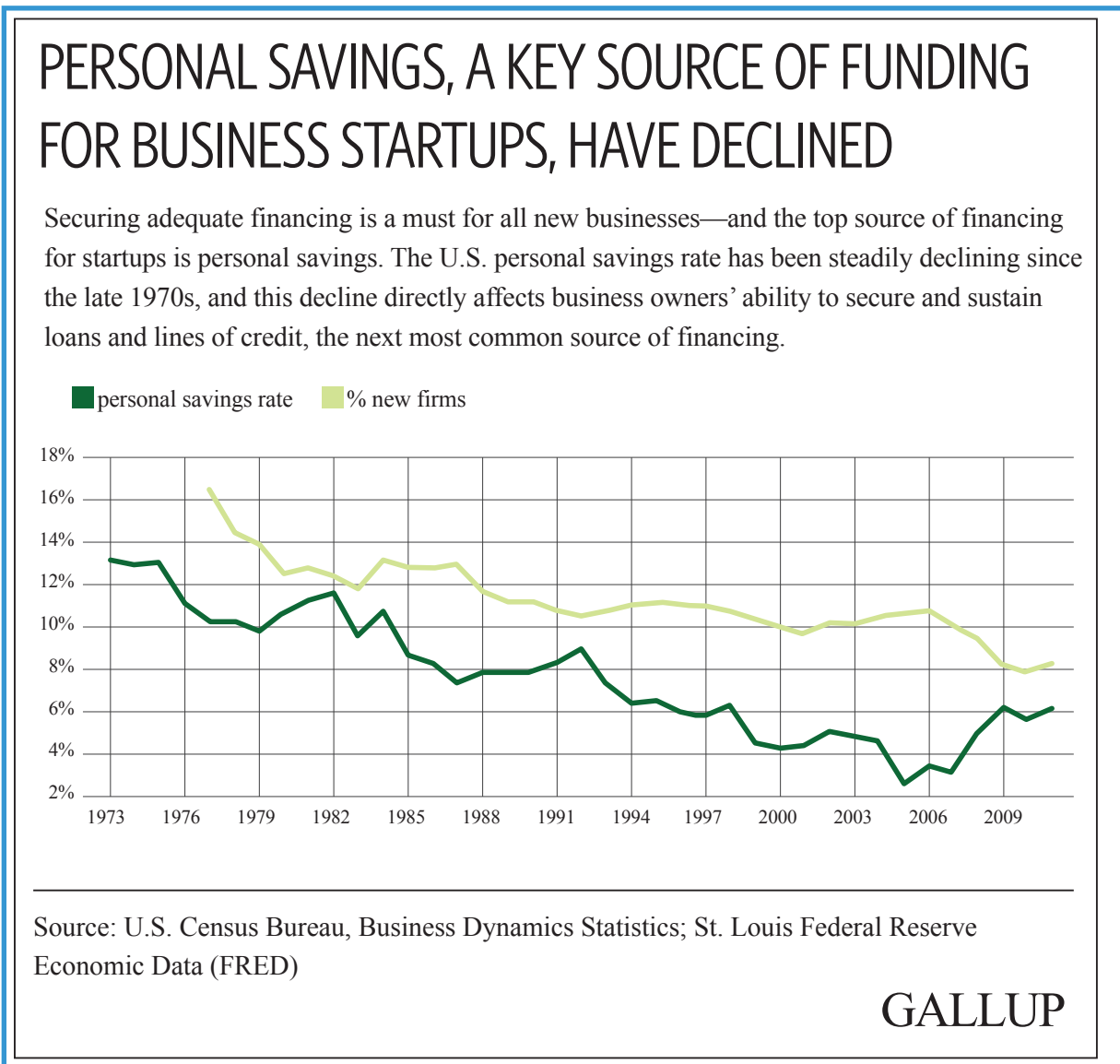
“ . . . entrepreneurs are more likely to come from a middle-class or upper-lower-class background, and very few come from backgrounds of extreme wealth or extreme poverty.”

- The Kauffman Foundation
(2009)

The strain that the financial crisis put on America's middle class has not been good for business.

Data from the Federal Reserve Survey of Consumer Finances reveal that the income of the typical household headed by a self-employed person declined 19% between 2007 and 2010.

The primary source of funding for new business ventures is personal savings, followed by bank loans. The two are entwined, as a business owner's ability to secure a loan depends on the availability of personal savings and wealth.¹²⁵ Apart from the spikes in savings that tend to occur in the aftermath of recessions, overall the U.S. personal savings rate has been slowing for decades.



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Adding a higher rate of unemployment to the mix, a middle class family is less likely to have a nest egg and more likely to be in debt—all eroding its prospects for embarking on a successful new business venture.

The credit crunch: When the going got tough, the banks got tougher . . . on their customers.

According to the National Small Business Association, 38% of small businesses reported a decrease in their lines of credit or credit card limits in the first six months of 2009.¹²⁷ Among small business owners who requested extensions of their credit lines, more than 40% were denied. Many of those fortunate enough to get extensions were squeezed, forced to increase their collateral (just as real estate values plummeted), pay higher interest rates, or agree to more stringent terms. From 2008 to 2011, small business lending declined by \$116 billion.¹²⁸

While there has been some recovery in the small business credit market recently, many sources indicate that **small businesses still lack the level of credit access they had in 2007**. There also remains a disparity in lending practices toward large and small businesses. Banks have loosened lending standards for large companies during the recovery, but have generally tightened standards for small businesses.¹²⁹

“I was suddenly working without a safety net. My wife and I are paying the mortgage on our home and making payments on one car, and we have a 6-month-old daughter. Some months, I receive \$5,000 from a single commercial client; other months I’m lucky to get two checks . . . for \$400 each. It’s very stressful trying to meet our monthly costs with no backup funding.”

– Ryan Weber,
small business owner
(2010)

Under the Troubled Asset Relief Program (TARP), the government provided \$427 billion in capital to 949 banks in part to encourage business lending, particularly to small firms. To the banks, it was a chance to take the taxpayers’ money and run: Those that received capital injections from TARP did not increase small business lending—they decreased it.^{130,131}

And small businesses suffered more.

With their savings depleted and credit still hard to find, the percentage of small business owners borrowing dropped 4% lower in June 2014 than it was in November 2007.¹³² Before the crisis, 36% of small business loans were approved. By June 2014, only 20% of aspiring business owners were able to secure bank financing.¹³³

The canary in the coalmine.

The 2008 financial crisis was devastating for small businesses, and consequently, for our entire economy. A weakened middle class with scant personal wealth is no springboard for entrepreneurs and small businesses. Meanwhile, lending continues to be unavailable for far too many aspiring entrepreneurs.

Existing small businesses, if they've managed to survive this long, are unable to grow or create jobs. They can't take risks. They can't fund or commercialize innovations, or make the game-changing contributions that make the U.S. economy strong. Demand is too weak as the customers that remain are under stress and cautious.

If this crucial segment of the economy cannot make up ground lost during the Great Recession—borrowing and capital spending both remain below pre-recession levels—how can the economy as a whole mount a solid, lasting recovery?

The simple answer: It can't.

VII. CITIES LEFT BEHIND SNAPSHOT:

Toledo, Ohio

Broken Glass City

"It's not safe to walk around at night no more," a lifelong Toledo resident told Toledo News Now in 2013. "When I was a child, you could walk across town without having to worry about two or three guys jumping you for no reason." Another resident approached by reporters hid her face from the cameras, explaining that drug users and dealers use the abandoned house next to hers and prostitutes "turn tricks in the weeds."¹³⁴

Toledo was once celebrated as the glass-making capital of the world. Its nickname, the "Glass City," conjured images of bustling glass companies filling windshield orders for the city's GM and Chrysler plants. But since the fall of the U.S. automotive industry, shattered glass on decaying city streets comes more readily to mind.

Toledo's economy depended on manufacturing, particularly automotive—until the bottom fell out. **The automotive industry sustained more damage than any other industry during the Great Recession.**¹³⁵ Already weakened by foreign competition, it sustained a near-fatal blow when consumers, unemployed or unable to get credit, stopped buying. These events had played out before—during the Great Depression.

The consequences for Toledo and other Rust Belt cities were dire:

- Toledo lost some 40,500 jobs from peak levels¹³⁶
- Unemployment shot up to 11.3% in 2011¹³⁷
- More than 46,000 people lived in neighborhoods with poverty rates of 40% or higher¹³⁸
- In a 10-year span, the number of people receiving food stamps nearly doubled, from about 51,000 to 96,000¹³⁹



A 2011 report from the Brookings Institution found that of the 100 largest metropolitan areas it studied, **Toledo suffered the worst rise in poverty in the U.S.**¹⁴⁰

“These neighborhoods are on the economic margins, last in when times are good, and first out when things get bad. More and more communities are balanced on that knife’s edge.”

- Elizabeth Kneebone,
Brookings Institute
(November 2011)

Managing decline: desperate times, controversial measures.

A huge drop in income tax revenues due to unemployment nearly bankrupted Toledo, prompting Mayor Mike Bell to put contentious cost-cutting measures in place. The effects of these measures—gaps in public safety and health—were felt citywide.

City unions were brought to their knees in 2010 when forced concessions, backed by a controversial measure called “exigent circumstances,” led to unilateral cuts for all exempt city employees as well as members of several police and firefighter’s unions. The city was already short-staffed, as the previous Mayor, Carleton “Carty” S. Finkbeiner, had laid off about 40 non-safety employees and 75 police officers in 2009. Remaining non-union employees’ pay was then cut 20%, as they were paid for only 32 hours a week despite having to work 40 hours or more.¹⁴¹

Toledo also had to dip into its capital improvement funds, to the tune of about \$25 million over the course of two years.¹⁴² According to Bell, “What we needed to do was raise taxes, but we knew we couldn’t do that because the people who we’d be raising taxes on were also being harmed by unemployment or other problems in the economy.”

The aftermath.

In 2011 a report from IHS Global Insight listed Toledo as one of 37 U.S. cities **not expected to return to peak employment until after 2021**.¹⁴³ For Toledo it has proved prophetic, as high unemployment and poverty continue to define people’s lives there.

In 2014, the average Toledoan earned less than \$20,000 a year.¹⁴⁴

As of June 2015, 14,000 people in metro Toledo are unemployed.¹⁴⁵

VIII. THE FISCAL FALLOUT:

The Crisis Caused an Unprecedented Increase in Federal Deficits and Led to Cuts in Government Investment in Critical Areas

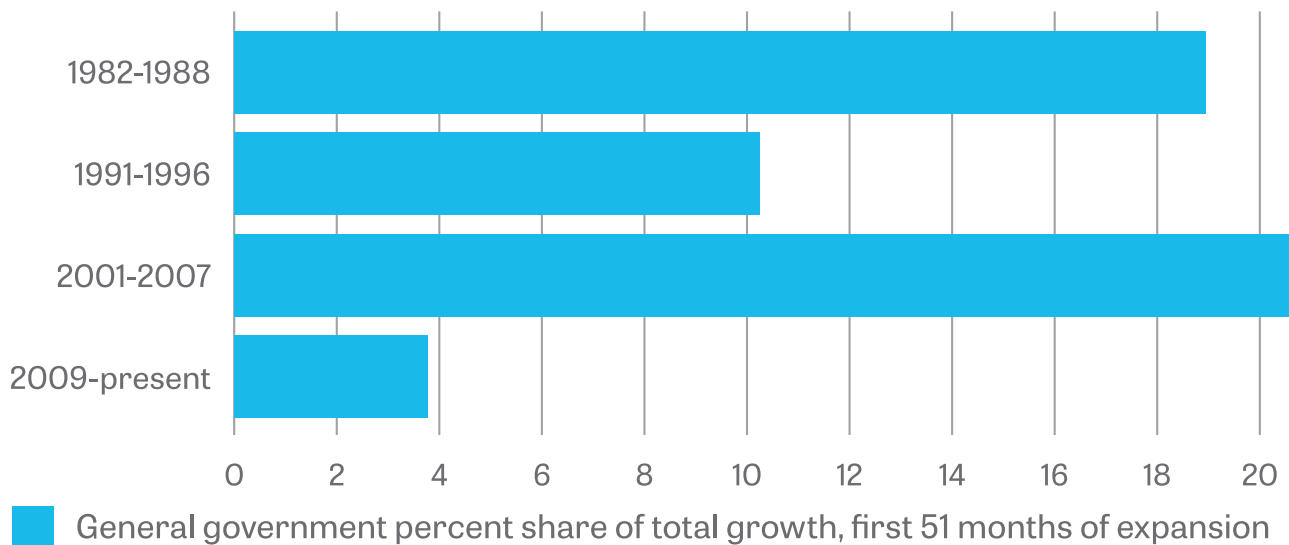
In response to the financial crisis, the federal government spent, lent, guaranteed, pledged, committed, or otherwise used trillions of dollars to bail out Wall Street, prop up the financial system, and stabilize the economy through dozens of emergency programs. The value of the government's total commitment of support is estimated at no less than \$23.7 trillion.¹⁴⁶ These massive government expenditures and commitments coincided with dramatic decreases in tax revenues at the federal and state levels, as well as skyrocketing social costs when the financial crisis forced millions out of work and out of their homes.

All of these factors contributed to huge deficits in the years following the financial crisis. The federal deficit hit a mind-boggling \$1.4 trillion in 2009 at the height of the Great Recession, due both to the economic stimulus aimed at stabilizing the economy and to a drop in tax revenues. Making matters worse, as the deficit swelled in the years following the crisis, advocates of austerity won the political argument. What followed were attempts to bring budget deficits down by reducing spending, however necessary it might be to respond to the economic calamity caused by the crash. This not only starved the programs needed to combat the economic conditions, but also hampered economic growth.

While these measures helped stabilize the rapidly deteriorating state of many American families and the financial system—on terms that were highly favorable to the bankers that had wrecked it in the first place. The trillions of dollars that the government had to spend to rescue the financial system were funds that it could not spend on other vital needs and priorities.

And yet, as much as the government was forced to spend, it still expended much less on a percentage basis than it had in the past to combat prior recessions, which were much less severe. As shown in the following chart, unlike other recent recessions in which the government dramatically expanded spending to revive a deteriorating economy, government contributed relatively little to the very weak economic expansion that followed the 2008 financial crisis. This anemic response was attributable, in part, to the diversion of those resources to prop up the financial system, which did not precipitate and was not at the center of prior recessions.

Government Contribution to Economic Expansions



Sources: Bureau of Economic Analysis, Bloomberg View.

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Unprecedented government bailouts and stimulus programs contributed to massive budget deficits and growing national debt.

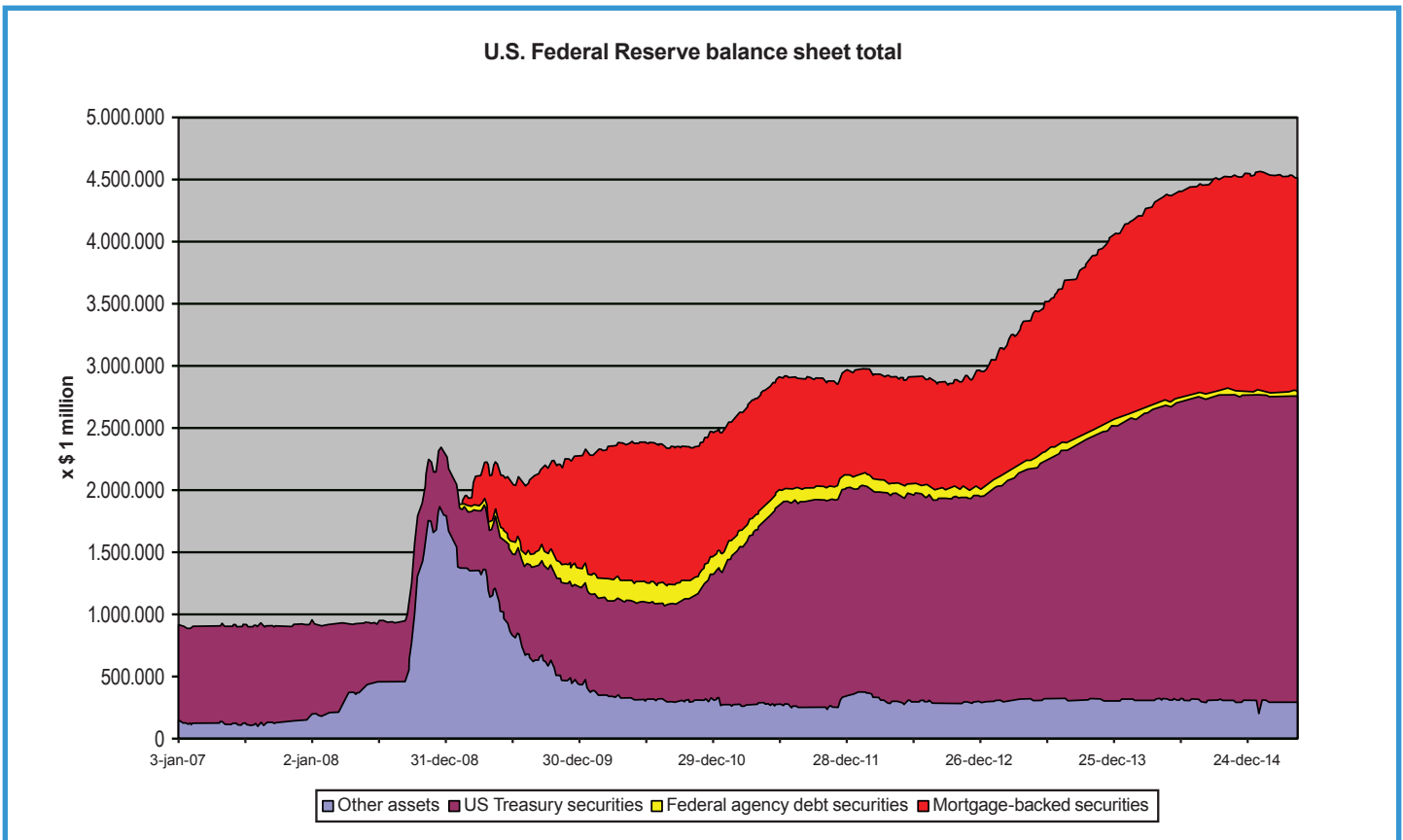
Recovery efforts made in direct response to the financial crisis accounted for a significant portion of government spending, as the federal government enacted measures to deal with the crisis beginning in 2008. Several well-known government measures, which contributed to unprecedented deficits from 2009 to 2012, include:

- **Economic Stimulus Act of 2008:** Signed by President Bush on February 13, 2008, the stimulus act provided individuals with tax rebates and businesses with tax breaks, but cost American taxpayers \$152 billion in 2008.¹⁴⁸
- **Troubled Asset Relief Program (TARP):** To help prevent the complete collapse of the financial system in 2008, Congress authorized and President Bush signed the \$700 billion TARP to stop the financial crash and restore stability to the system. To date, the government has disbursed close to \$430 billion.¹⁴⁹ As of April 2014, the Congressional Budget Office (CBO) reported a total net cost of \$27 billion related to TARP and estimated the final cost between \$20 and \$30 billion.¹⁵⁰
- **Supplemental Appropriations Act of 2008:** Title IV of the Supplemental Appropriations Act of 2008 created the Emergency Unemployment Compensation program, a temporary unemployment insurance program to extend unemployment insurance for an additional 13 weeks for those who exhaust their regular benefits.¹⁵¹ The Act increased projected outlays by \$13 billion through 2009.

- American Recovery and Reinvestment Act of 2009 (ARRA): In response to a worsening economic crisis caused by the financial crash, ARRA, signed into law in February 2009, provided a stimulus package and tax relief in the amount of \$787 billion.¹⁵²
- Worker, Homeownership, and Business Assistance Act of 2009: Building on ARRA, this act extended and expanded the Homebuyers Tax Credit, cut taxes for struggling businesses, and provided 20 additional weeks of unemployment insurance. The CBO estimated the Act would increase direct spending by \$6.6 billion over the 2010-2019 period.¹⁵³

Within the first few years following the crisis, the government committed approximately \$12.2 trillion to get the economy back on its feet. Of that massive total, \$9 trillion was allocated to direct investments in financial institutions, purchases of high-grade corporate debt, and purchases of mortgage-backed securities; \$1.7 trillion was allocated to insuring debt issued by financial institutions and guaranteeing poorly performing assets; and \$1.4 trillion went to a significant expansion of the government's traditional overnight lending to banks.¹⁵⁴

On top of all this, beginning in 2009, the Fed implemented a program to buy immense quantities of bonds in an extraordinary effort to stop the economic freefall, stabilize the economy, and help spur economic growth. All told, the bond-buying program, called "quantitative easing" or QE, pushed the Fed's balance sheet to more than \$4 trillion.¹⁵⁵



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In a further attempt to support the economic recovery, the U.S. central bank cut interest rates to zero in 2008. In mid-June 2015, the Fed voted to keep rates steady near zero, marking seven years of unprecedented low interest rates.

Economic theory holds that low interest rates are generally good for the economy, as they stimulate growth. However, persistent and historically low interest rates harm savers, including those who rely on interest income and all types of investors.

While borrowers pay less on loans, savers earn less on their money—giving them less to spend. Since the U.S. economy is driven by individual spending, it cannot grow under prolonged conditions of lowered consumption. In addition, low interest rates contribute to the underfunding of pension plans, which will impose hardships on retirees. Lastly, the positive impacts of low interest rates are immediate but fleeting: “most benefits of low U.S. rates have already occurred. People who owned U.S. Treasuries and other bonds in 2011, 2012, and so far in 2014 reaped huge benefits as interest rates fell and bond prices rose. While falling interest rates produce a great one-time benefit, the future for bond investors is bleak.”¹⁵⁷

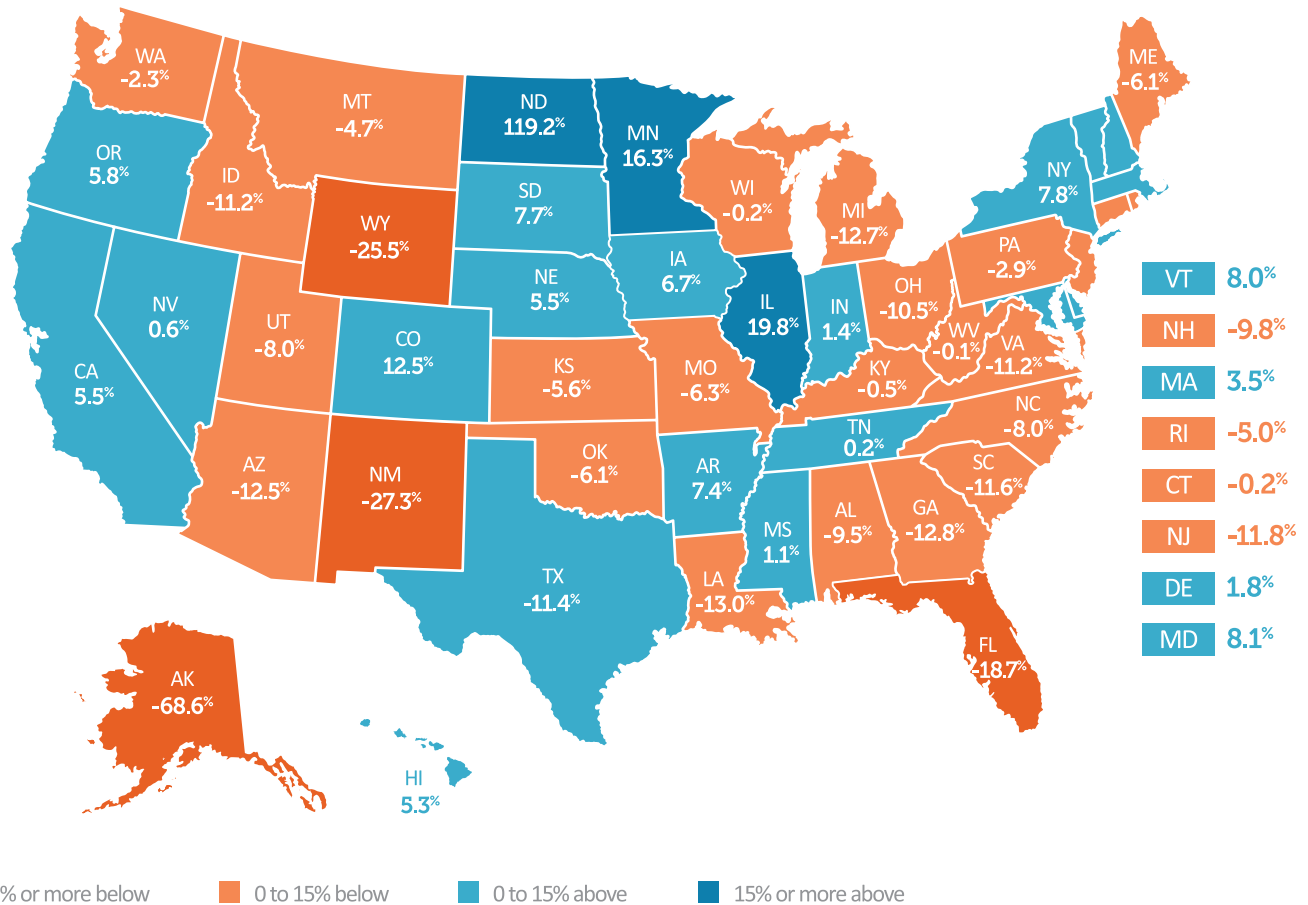
The confluence of all these elements leaves us ill-equipped to adequately respond to a weakened economy that is barely growing or to a future financial crisis. For example, there is very little capacity to carry out additional fiscal or monetary stimulus, and the government doesn’t have the resources to handle any additional financial instability. Congress can’t do it, because the financial crash-caused deficits and resulting debt constrain its ability to spend. The Fed can’t do it, because the Fed funds rate is already at zero and cannot be cut further, while its balance sheet is closing in on \$4.5 trillion.

Decreases in tax revenues brought on by the Great Recession further contributed to high deficits and national debt levels.

A major impact of the Great Recession on state and local government finances was a dramatic decline in tax revenue. In the first quarter of 2009, state and local government tax collection recorded the largest decline since at least 1963.¹⁵⁸ As shown in the following diagram, many states are still dealing with the lingering effects of the Great Recession—a long-term effect mirroring the sustained era of decline seen in the wake of the Great Depression.

Real Tax Revenue Is Still Lower in 29 States Since the Recession

Tax collections in 2Q 2014 compared with each state's peak, adjusted for inflation



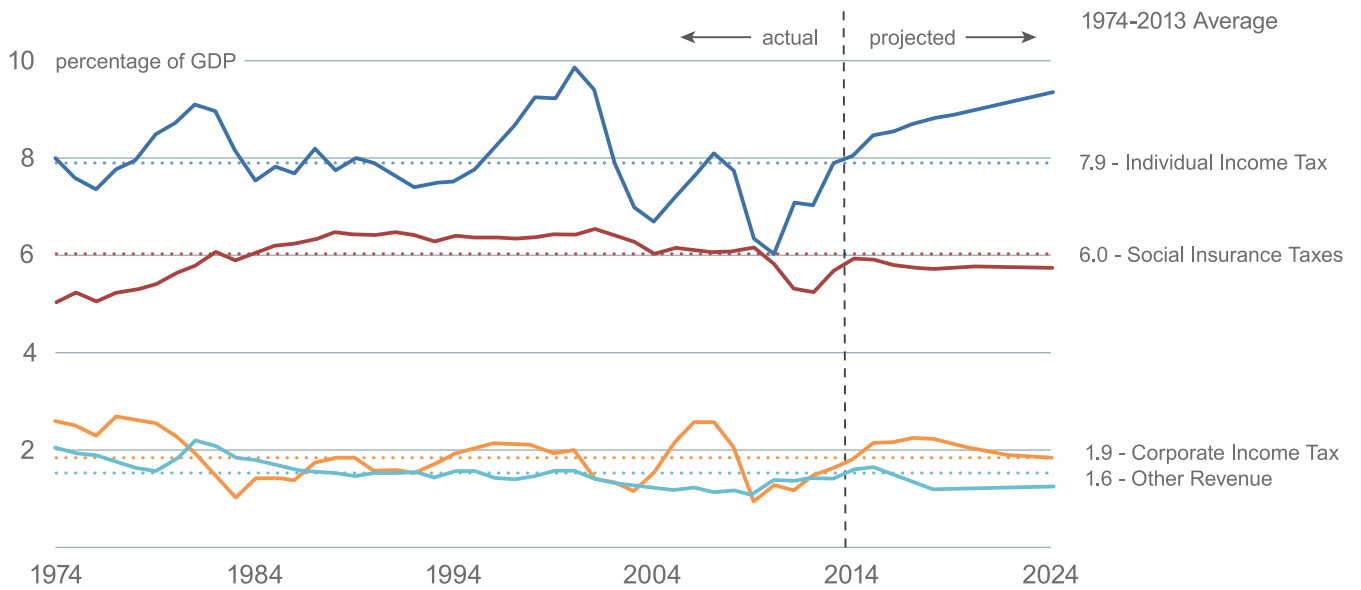
The Pew Charitable Trusts. The analysis is based on the U.S. Census Bureau's quarterly tax revenue data, as adjusted by the Rockefeller Institute of Government.

© 2014 The Pew Charitable Trusts

The decline in tax revenue was even sharper at the federal level, due to lower income and corporate profits as well as the tax cuts made under the ARRA and other programs. Individual income taxes decreased markedly, bottoming out nearly two percentage points below their 1974-2013 average of 7.9% of GDP. Corporate income taxes dropped from 2.6% of GDP in 2007 to just 1% of GDP in 2009. Social insurance taxes that support Social Security and Medicare declined by 0.8% of GDP, in large part due to falling wages, as described elsewhere in this report.¹⁶⁰



Federal Revenues by Source as a Percentage of GDP



Source: Tax Policy Center tabulation of data from the Congressional Budget Office and the Office of Management and Budget

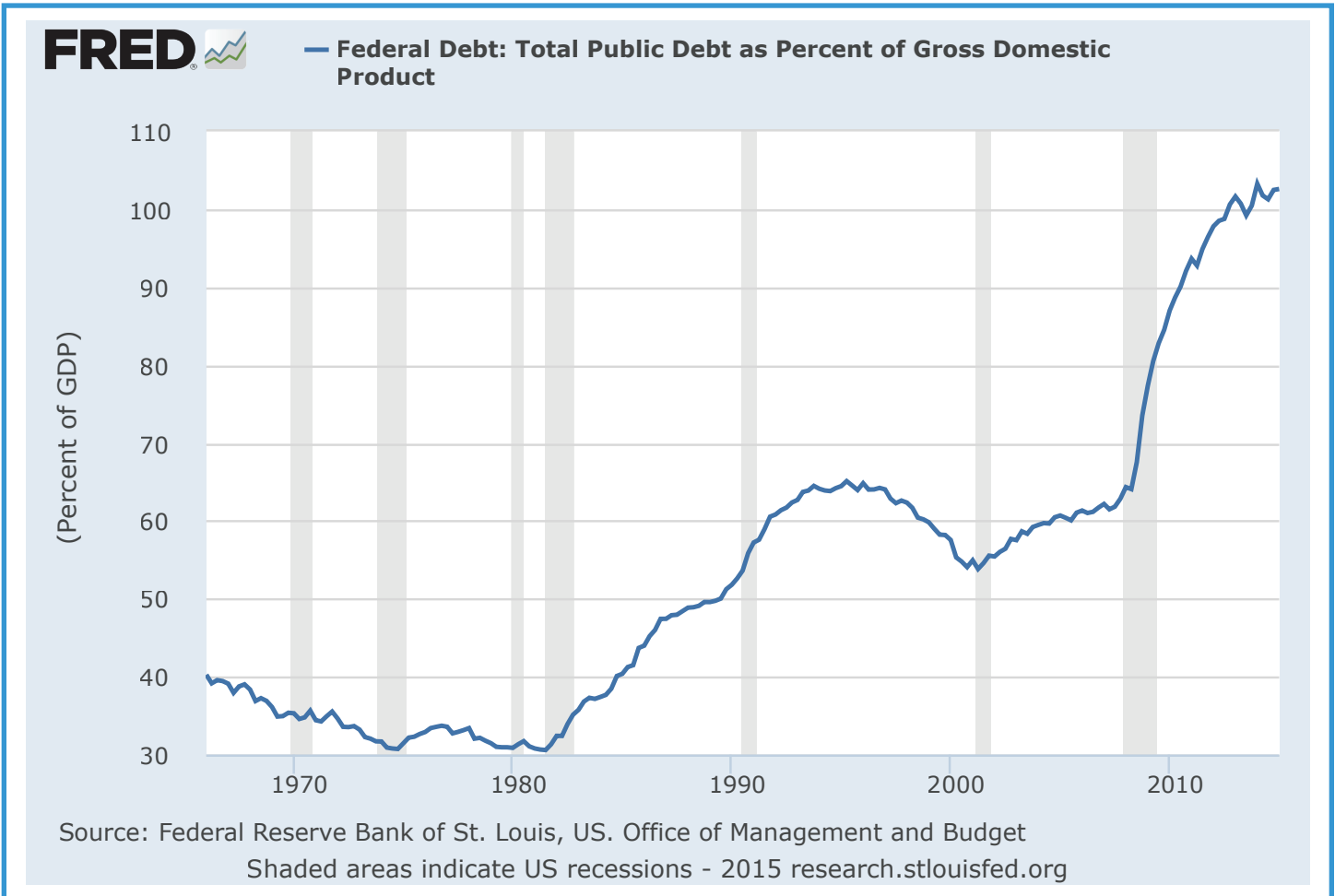
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The country faces long-term debt challenges, now and in the future.

The debt-to-GDP ratio is an indicator of a nation's ability to pay back its debts and a sign of economic health. The debt-to-GDP ratio is the ratio between the government's debt and the nation's gross domestic product. A low debt-to-GDP ratio indicates an economy that generates sufficient revenues to pay back debts without incurring further debt. Conversely, a higher debt-to-GDP ratio is a red flag, signifying a country's inability to service its obligations due to excessive debt and/or lagging GDP.

In the early 1980s the U.S. debt-to-GDP ratio was 35.4%. As can clearly be seen in the following chart, although the ratio of debt-to-GDP increased from 2002 to 2008, it has skyrocketed in the past seven years due to the financial crisis. **At the end of the first quarter in 2015, it stood at 102.6%. In absolute numbers the debt has risen to \$18.2 trillion.**¹⁶²

Federal Debt: Total Public Debt as Percent of Gross Domestic Product 2015:Q1:
102.59282 Percent of GDP

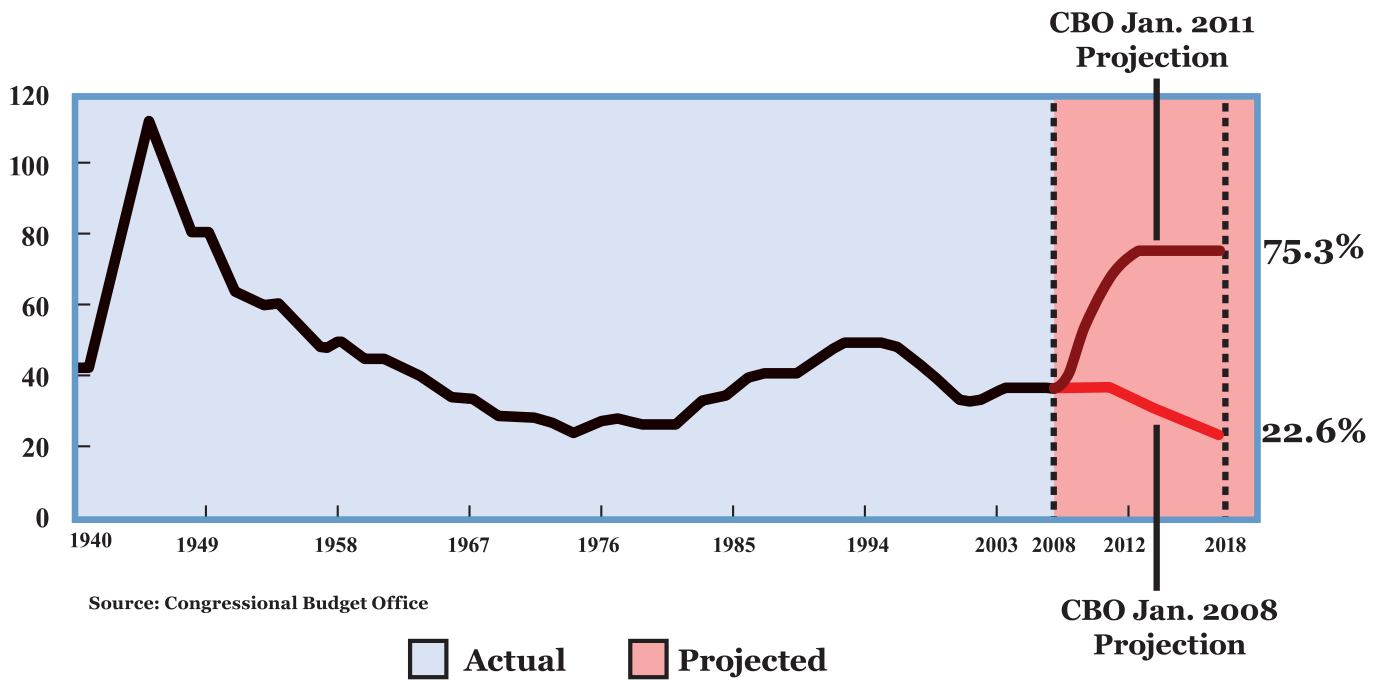


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While many factors contribute to the overall deficit and long-term debt—including an aging population and rising healthcare costs—the financial crash and the Great Recession have dramatically worsened the nation’s debt problem, making that debt far, far worse than it would otherwise have been. In fact, as the following chart shows, in January 2008—seven months before the financial crisis reached a crescendo—the CBO projected that the U.S. debt-to-GDP ratio would **fall** to 22.6% by 2018. In January 2011, after the devastation wrought by the financial crisis, bailouts, and recession was becoming apparent, the CBO revised its projections, showing that the debt-to-GDP ratio would **soar** to 75.3% by 2018.

Even then, the CBO’s 2011 projection was overly optimistic. As shown above, the debt-to-GDP ratio hit 102.6% this January.

U.S. Debt as a Percentage of U.S. GDP



The financial crisis has left us with a massive debt that poses a profound long-term threat to the nation's economy. If deficits continue to grow, the national debt will grow faster than the economy, which has already been seriously weakened by the ongoing effects of the financial crash and the Great Recession.

As the national debt grows, interest rates will at some point be pushed up—not just for the government but for everyone. As interest rates rise and make the government debt even more expensive to service, "there will be less business investment, less homebuilding, fewer automobile sales, and so on."¹⁶⁴ Thus, the costs of the financial crash and the Great Recession it caused are going to impair the country economically for decades to come.

As a result of the Great Recession, the government has dramatically cut investment and spending in key areas.

During the Great Recession and in the years since, the country's mounting debt has led to lower government expenditures and a lack of a positive economic multiplier. Debt levels have impeded economic growth, cutting back the nation's investments in a variety of areas, including education, innovation, construction, and national security. This underfunding of much-needed public investments in schools, roads, bridges, and ports puts the country at a profound disadvantage.

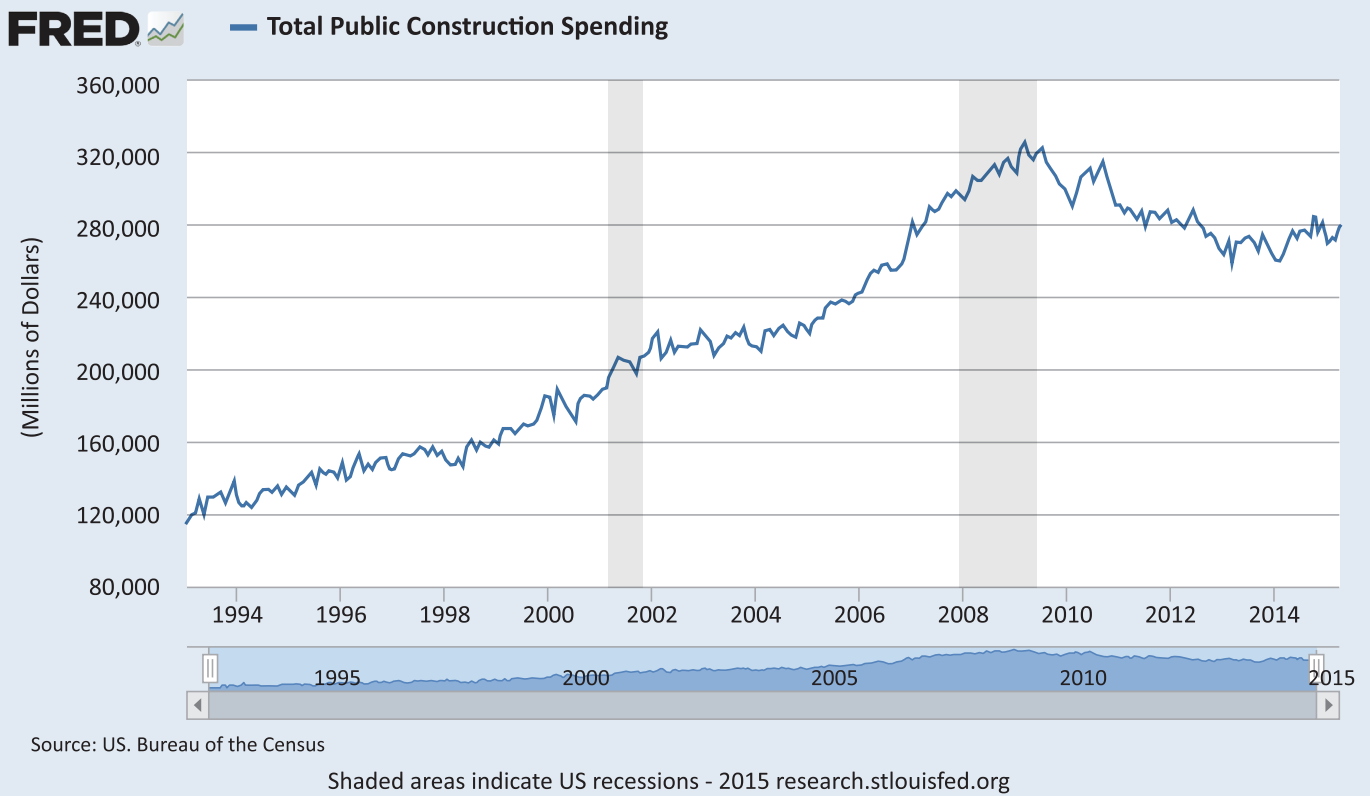
Moreover, the Fed has held interest rates historically low since 2008, masking the true costs of the government's climbing debt. An expected increase in interest rates will make it harder for future taxpayers to pay the debt, leaving even smaller amounts available for discretionary spending on necessary development and social programs.¹⁶⁵ Below are several critical areas impacted by cuts in government spending, namely infrastructure, research and development, and state and local investment.



In this Feb. 19, 2015 photo, Larry Lawrence, right, who slept on the street the night before, works at a computer at the Nashville Public Library in Nashville, Tenn. As cuts to social services and mental health programs continue to drive the homeless and disadvantaged to use libraries as day shelters, some libraries are beginning to view services for that population as an important part of their mission. (AP Photo/Mark Humphrey)

Infrastructure crumbles.

Infrastructure is an especially critical area needing continued investment. As the link that connects businesses, communities, and people, infrastructure underpins the economy—and construction experienced particularly harsh discretionary spending cuts in the aftermath of the Great Recession. The Fed reported that the monthly rate of spending on construction in March 2015 was \$264.17 billion. This is one of the lower levels since the end of the recession, approximately matching the level of spending on construction reported in late 2006. In addition, as Fed data in the following chart illustrates, spending on construction has been flat for the past five years, leaving the country's infrastructure in a precarious state with little sign of improvement.¹⁶⁶



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Alarmingly, the American Society of Civil Engineers (ASCE) gives the country's infrastructure an abysmal grade of D+. The latest government-reported data (see FRED graph above) show infrastructure spending at well under \$300 billion. The ASCE estimates the infrastructure investment needed at \$3.6 trillion by 2020—a tall order considering the unwillingness or inability of government to provide this funding.^{168,169}

AMERICA'S INFRASTRUCTURE G.P.A.

D+

Each category was evaluated on the basis of capacity, condition, funding, future need, operation and maintenance, public safety and resilience.

A = Exceptional
 B = Good
 C = Mediocre
 D = Poor
 F = Failing

ESTIMATED INVESTMENT
 NEEDED BY 2020:
\$ 3.6
 TRILLION

| | | | |
|------------------|----|-----------------------------|----|
| AVIATION | D | PORTS | C |
| BRIDGES | C+ | PUBLIC PARKS AND RECREATION | C- |
| DAMS | D | RAIL | C+ |
| DRINKING WATER | D | ROADS | D |
| ENERGY | D+ | SCHOOLS | D |
| HAZARDOUS WASTE | D | SOLID WASTE | B- |
| INLAND WATERWAYS | D- | TRANSIT | D |
| LEVEES | D- | WASTEWATER | D |

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“For the U.S. economy to be the most competitive in the world, we need a first class infrastructure system—transport systems that move people and goods efficiently and at reasonable cost by land, water, and air; transmission systems that deliver reliable, low-cost power from a wide range of energy sources; and water systems that drive industrial processes as well as the daily functions in our homes. Yet today, our infrastructure systems are failing to keep pace with the current and expanding needs, and investment in infrastructure is faltering.”

- ASCE 2013 Report Card

The ASCE has assessed the funding needed in each infrastructure category, including transportation, water, electricity, waste management and schools, to maintain a national state of good repair. Based on current trends extended to 2020, there is a **total funding gap of \$1.6 trillion**.

Cumulative Infrastructure Needs by System Based on Current Trends Extended to 2020
(Dollars in \$2010 billions)

The table below provides the estimated cumulative investment needs by infrastructure category based on current trends extended to the year 2020 (dollars in \$2010 billions).

| Infrastructure Systems | Total Needs | Estimated Funding | Funding Gap |
|--|----------------|-------------------|----------------|
| Surface Transportation ¹ | \$1,723 | \$877 | \$846 |
| Water/Wastewater Infrastructure ¹ | \$126 | \$42 | \$84 |
| Electricity ¹ | \$736 | \$629 | \$107 |
| Airports ^{1,2} | \$134 | \$95 | \$39 |
| Inland Waterways & Marine Ports ¹ | \$30 | \$14 | \$16 |
| Dams ³ | \$21 | \$6 | \$15 |
| Hazardous & Solid Waste ⁴ | \$56 | \$10 | \$46 |
| Levees ⁵ | \$80 | \$8 | \$72 |
| Public Parks & Recreation ⁶ | \$238 | \$134 | \$104 |
| Rail ⁷ | \$100 | \$89 | \$11 |
| Schools ⁸ | \$391 | \$120 | \$271 |
| TOTALS | \$3,635 | \$2,024 | \$1,611 |
| Yearly Investment Needed | \$454 | \$253 | \$201 |

¹ Data taken from [ASCE Failure to Act Series](#) published 2011-13.

² Airport needs and gaps include anticipated cost of NextGen: \$20 billion by 2020 and \$40 billion by 2040.

³ Total needs are federal and non-federal high hazard dams.

⁴ Funding only includes publicly funded remediation, not funds from the private sector.

⁵ Total needs numbers is based on discussions with the National Committee on Levee Safety.

⁶ Total needs and funded included all costs associated with Parks and Recreation. Funding gap is capital needs only.

⁷ These numbers are based on market projection and current investment trends.

⁸ These numbers are based on the last available national data collection and brought to current market dollars.

Innovation that never comes to be.

Another critical area devastated by cuts in government spending is research and development. Government R&D has seeded countless innovations over the years—from the Internet, satellites, and advanced energy technologies to memory foam mattresses.¹⁷²

When Congress began cutting discretionary spending in 2011 (after the stimulus of the ARRA), R&D absorbed a significant budget cut. In recent years, the country's R&D budget has contracted by more than \$24 billion or 15.4%. This figure includes decreases in R&D spending for defense and civilian science, as well as technology. The sequestration in 2013 also had a pivotal role in the decline, resulting in overall reductions in 2013 that were greater than any other three-year period since the end of the space race in the mid-seventies.¹⁷³

Even the most visionary minds cannot bring ideas to fruition without the necessary resources.

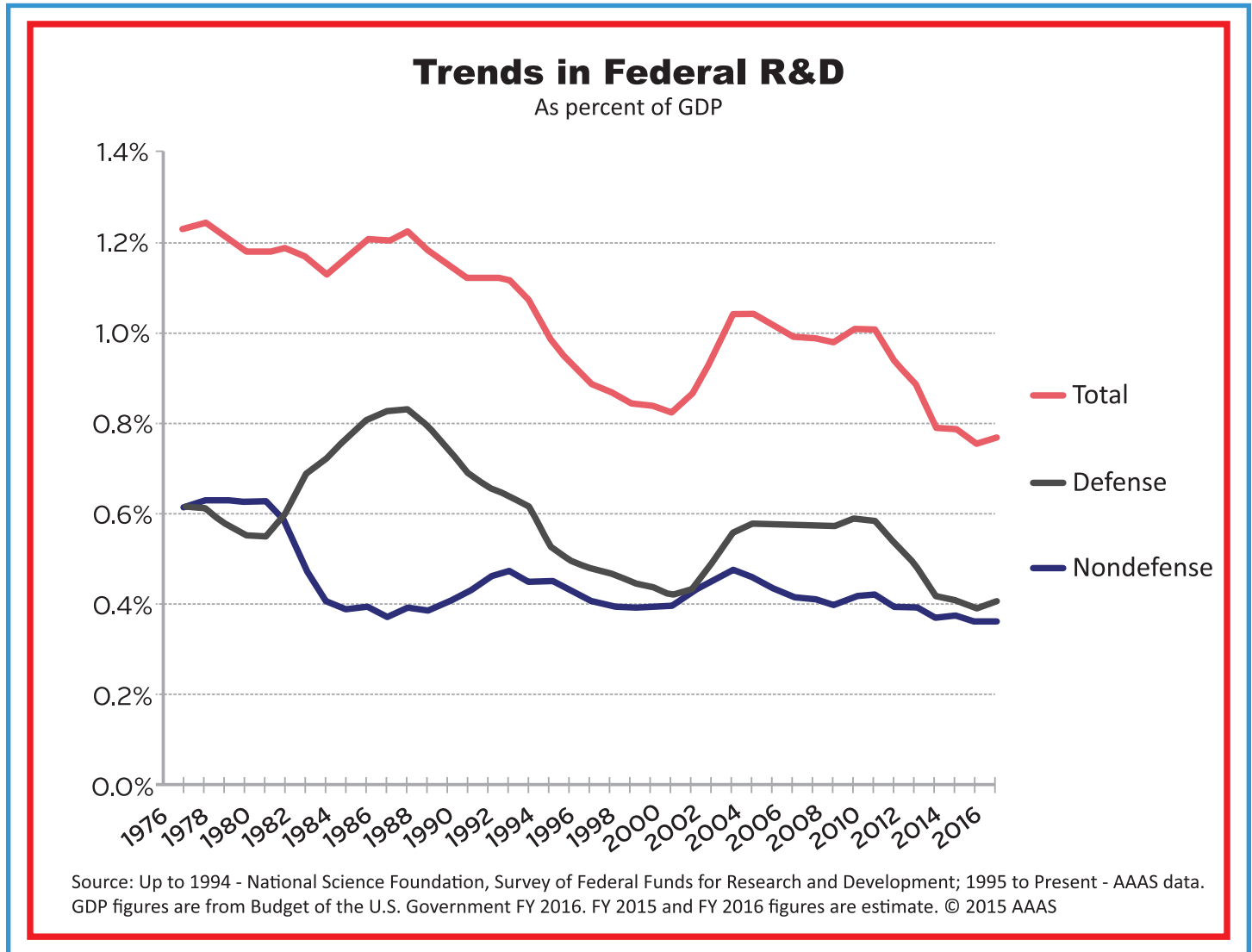
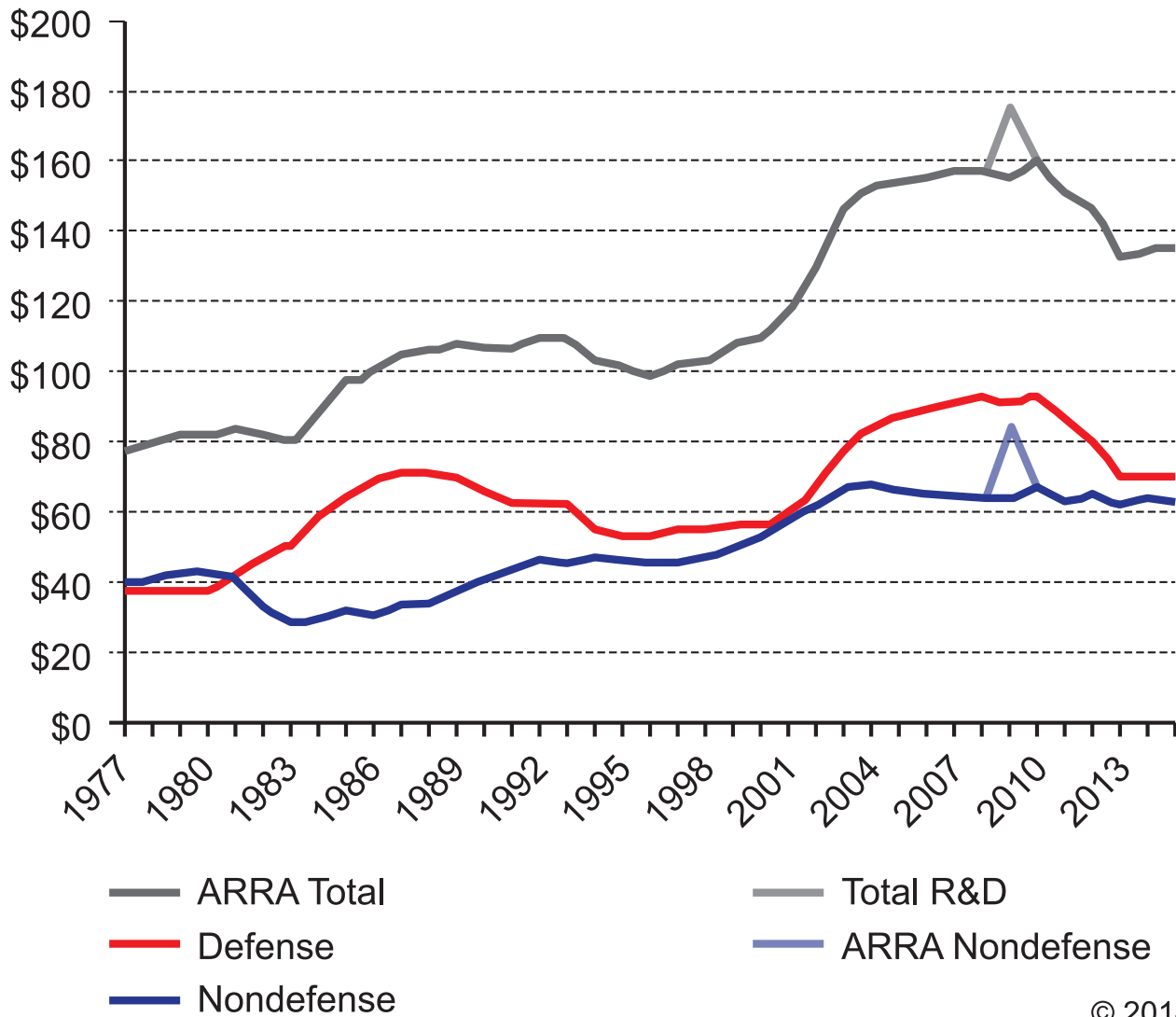


Figure 1: Federal R&D Since 1977
(billions of constant 2014 dollars)



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State and local governments hard-hit.

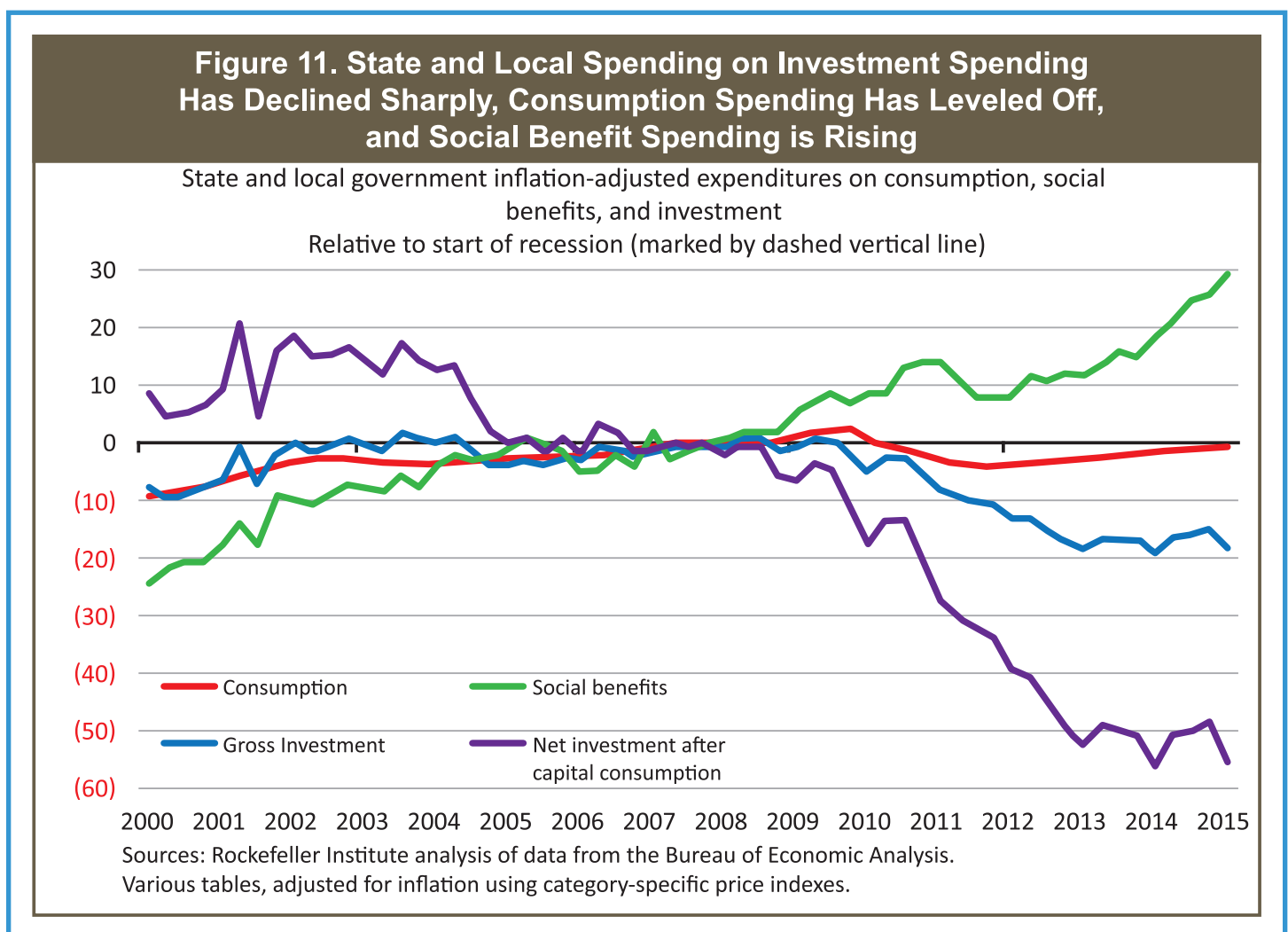
As harsh as some cuts have been at the federal level, they've arguably been even worse in the states, which have suffered grave cuts to infrastructure, education, and other necessary public services. **States have slashed spending in the aftermath of the Great Recession to a greater extent than in any other recent recession.**

While the economy is slightly recovering, many states are still being forced to resort to austerity measures made necessary by federal budgetary contraction. Unlike the federal government, most states are required to balance their budgets every year. So when stimulus revenue sharing ended, the states were

still left with high social costs—and by this point the federal government couldn't help. An austerity mindset had taken hold, barring any additional spending to address the needs from the 2008 crash that never went away. Employment, consumer spending, and revenue recovery have all experienced slower recoveries than in past recessions.

For several states, the recession continues into 2015, largely in the form of unemployment and lack of infrastructure development. A number of individual state governments have approximately half the reserves they had before the recession. This grim reality spans regional and political lines: Arkansas, Illinois, New Jersey, and Pennsylvania—all politically diverse—have saved the least amount of their pre-recession reserves of all 50 states.¹⁷⁶ Some states are unable to balance budgets and have cut discretionary spending. Over 30 states are challenged by budget gaps in 2015 or 2016. This is especially true of oil-dependent states, struggling to service their debt as a result of the recent decline in oil prices.¹⁷⁷

As the chart below highlights, “real gross investment [in the states] fell by 18% since the start of the recession, and net investment (after allowing for capital consumption) plummeted more than 55%.”¹⁷⁸



These cutbacks have slashed spending in numerous areas of the public infrastructure and public services, including badly needed construction projects, elementary and secondary education reforms, road and highway construction and repair, policing, animal care and control, corrections, and parks and recreation. Cuts to education will have a lasting negative impact on communities, and represent a clear indicator of economic trouble down the road.

**“The extent of the weakness is really impressive . . .
There’s a lot of pressure on governors and legislators.”**

- Donald Boyd,
The Rockefeller Institute in Albany, New York
(May 2015)

We’ve dug ourselves a hole that we may not be able to get out of.

The financial crash and the Great Recession it caused have driven the debt levels of federal and state governments to unsustainable levels and forced governments to slash their spending. This combination has weakened the country’s ability to invest in a number of critical areas, including R&D and infrastructure—both of which are pillars of America’s global standing and economic strength.

IX. WALL STREET BAILOUTS AND SECRET SUBSIDIES: The False Perception of Profit

In addition to the long-term costs it inflicted on the U.S. economy, in the form of lost GDP, foregone investment, and exploding government deficits, the financial crisis galvanized the government into deploying trillions of dollars to keep the financial system from imploding. Unlike the lasting damage that the financial crisis inflicted on the economy, the effects of which will linger for decades to come, much of the money spent to rescue the financial system has been returned to the Treasury and the Fed. But the fact that the government got “repaid” for saving the financial system has given rise to the myth that the bailouts turned a profit for the American taxpayer.

One of the most misleading claims to come out of the financial crash is that the U.S. and taxpayers made money on the bailouts. That is simply false. Being repaid is not the same as making money. This fundamental misstatement has been made repeatedly to suggest that the crisis was not as damaging as it truly was, and that the bailouts were not as costly as they really were.

If a bank lends a company \$1 billion and a year later the company pays back the \$1 billion plus \$1, the bank has **not** made money, even though more money was returned than was borrowed. Any banker making such a loan and claiming it “made money” would be fired. That’s because whether a loan makes money is measured by the risk-adjusted rate of return, taking the time value of money into account.

The standard way of making this calculation is to identify the risk-free rate and determine an appropriate rate of return above that risk-free rate, which takes into account the risk of lending and other standard variables, such as inflation. This is Economics 101, and everyone in finance and government knows it. While repayment of the government’s bailout money is undeniably better than a complete loss of those funds, it does not support the claim that the bailouts made money.

This is not to deny that it’s good that the government received more money than it lent. It is also not to argue that the government should have charged a rate of return that fully reflected the risk it was bearing for the bailouts, or even, as Bagehot would have it, charged a penalty rate of return, which is to say an amount significantly above a risk-adjusted rate of return.¹⁸⁰ Those are separate questions, to be discussed long after the facts about the economic reality of the lending are identified and accepted.

An accurate assessment of whether the U.S. government made money on the bailout of the financial sector must start with some key questions: What was lent; what was the risk-free rate of return; what was the actual rate of return; and what would have been the risk-adjusted rate received by the government?

Why is this important? Because it is not only inaccurate, but also misleading and dangerous to claim that the bailouts made money.

First, this baseless claim hides the massive and secret subsidy that taxpayers handed Wall Street banks, which is the difference between the risk-adjusted rate the government should have charged and the actual rate received. Second, it vastly understates the damage of the crash and crisis, lulling people into thinking it wasn’t as bad as it really was, which in turn instills a false sense of security and complacency—

which opponents of financial reform use to downplay the need for financial reform to ensure that such a crisis never happens again.

The baseline for thinking about the true cost of the bailouts and the taxpayer-provided subsidy they conferred on the banks is the undeniable fact that the risks of the entire financial system were shifted from the private sector to the American government. The bailouts used trillions of dollars in government and taxpayer money to prop up the entire financial system. One of the highest-profile actions taken (though nowhere near the largest) was TARP, which originally authorized \$700 billion in spending, a figure later decreased to \$475 billion by the Dodd-Frank Financial Reform and Consumer Protection Act. To date, the government has disbursed close to \$430 billion.¹⁸¹

TARP was just the tip of the bailout iceberg.

Within the first few years following the onset of the crisis, the government committed approximately **\$12.2 trillion** to stop the crash of the financial system, stabilize the economy, and try to spur economic growth. Of that massive total, \$9 trillion was allocated to bailing out Wall Street's too-big-to-fail banks with direct investments in financial institutions, purchases of high-grade corporate debt, and purchases of mortgage-backed securities; \$1.7 trillion was allocated to insuring debt issued by financial institutions and guaranteeing poorly performing assets; and \$1.4 trillion went to a significant expansion of the government's traditional overnight lending to banks.¹⁸²

Those trying to understate the severity of the crisis or hide the enormous sums used to bail out Wall Street often claim that the taxpayer "made money" on these rescue measures. This misinformation campaign sells the idea that not only did taxpayers get all their money back, but that they also made a profit. As economist Dean Baker pointed out, when government officials and others "claim that the government made money on the TARP loans it is either due to their ignorance of the workings of financial markets or a deliberate effort to deceive the public."¹⁸³

Claims that TARP made a profit are baseless: They disregard the risk that the government took on in rescuing financial institutions from their own reckless behavior as well as the cost of money over time.

In addition, claims that TARP made a profit are based on perfect 20-20 hindsight, as if the risks and returns were knowable in the midst of an imploding financial system and economy. The truth is that the government committed itself to using any amount of money to stop the financial system and economy from collapsing, and it wasn't worried about what would or would not be paid back, much less what might make a profit.¹⁸⁴ Thus, the risk the government took on was literally unlimited and the risk of loss was very substantial.

It is easy to see why claims that the government made a profit on the bailouts are false when the terms of the loan are compared to the terms under which the private market was willing to put its capital at risk in the wake of the financial crisis. To make the most obvious comparison, both the U.S. government and Warren Buffett loaned money to Goldman Sachs at the height of the crisis in the fall of 2008.

After the government allowed Lehman to fail on Monday, September 15, 2008, the government stepped in the next day to rescue AIG on September 16, sending the message that it would do whatever it took to save the financial system. As the then-Chairman of the House Financial Services Committee Barney Frank pointed out the day after the government rescued AIG, “The national commitment to the free market lasted one day. It was Monday.”

After the government rescued AIG and signaled to financial markets that it would do whatever it took to avoid the failure of another large financial institution—Buffett bought \$5 billion of Goldman preferred shares that paid a 10% annual dividend. He also received an option to buy Goldman shares on far more generous terms than the government. This was **after** the government put the full faith and credit of the United States behind the banking and financial system. By contrast, the U.S. government bought \$10 billion of Goldman preferred shares that paid a 5% annual dividend.

Treasury Secretary Hank Paulson justified the government’s poor deal on the grounds that he had to make the terms of the rescue “attractive to banks.” Nobel prize-winning economist Joseph Stiglitz said that making the rescue “attractive to banks” was code for “I’m going to give money away.” Stiglitz pointed out that the government’s terms to Goldman were so generous that “If Paulson was still an employee of Goldman Sachs and he’d done this deal, he would have been fired.”¹⁸⁵

But it was not until Goldman Sachs ended its deal with Buffett that the government giveaway to Goldman became fully apparent. On his \$5 billion investment in Goldman preferred shares, **Buffett** made \$1.75 billion from both dividend payments and an early repayment penalty. On his option to buy Goldman shares, Buffett made \$1.35 billion. Altogether, he made around \$3.1 billion on his \$5 billion investment for a **62% return** over 5 years.¹⁸⁶ As he explained to Fox News, his investment in Goldman Sachs netted him nearly \$500 million a year, or “\$15 a second.”

Remember, Buffett’s 60+% return was effectively the risk-free rate, because he obtained that return on investments made after the financial system was guaranteed by the U.S. government. It is no wonder that Buffet said that it would be a “sad day” when Goldman unwound his investment.¹⁸⁷

By contrast, the government made far less. As of December 2014, **the government** had posted a paltry **3.6% return** on its TARP investments.¹⁸⁸ Damon Silvers, Director of Policy for the AFL-CIO and a former member of the TARP Congressional Oversight Panel describes the “profits” from TARP this way: “As a financial transaction, the public did not get its money’s worth.”¹⁸⁹

Another example that further demonstrates that the bailouts did not generate a profit for the taxpayer is the massive, multiple bailouts of AIG. When AIG finally paid back the government for its bailout, it too returned slightly more money than it was lent. But what was the non-risk adjusted rate of return? It’s difficult to calculate due to the multiple bailouts and renegotiations of the terms with AIG, but Washington Post columnist Steven Pearlstein did it:

Once interest rates on the government’s loan were reduced and the whole arrangement renegotiated three years later, **the government wound up earning less than 4 percent** a year on what grew to become a \$182 billion bailout.¹⁹⁰

Remarkably that “less than 4%” is about the same as the government return on the TARP portion of the Goldman Sachs bailout detailed above, which is also “not very different than [the government’s] deals with the [other] banks.”¹⁹¹

Unlike the other banks that received a bailout, some of AIG’s shareholders had the audacity to sue the government, claiming that the already generous terms it had extended were not generous enough.¹⁹²

Apart from the fact that the government took on the unlimited risk of AIG’s liabilities, the judge found that, but for the government’s bailout, AIG’s shareholders would have been left with nothing.¹⁹³ To put it differently, the government’s bailout of AIG conferred a massive subsidy on AIG’s shareholders: the difference between the value of the shares they kept in the reorganized AIG and the value their shares would have had in an AIG bankruptcy, which would have been zero. This subsidy is on top of the subsidy conferred on AIG itself: the difference between the non-risk adjusted rate of less than 4% and the risk-adjusted rate of return that should have been assessed.

Pearlstein also looked at the government bailout of the GSEs Fannie and Freddie, noting that:

Other government officials say Fannie and Freddie’s profits are themselves a fiction, because they would not exist but for the government standing behind all of their financial obligations. If the Treasury were to charge them anything close to a market rate for its guarantee, there would be no profits.

Remember that what the public was not paid, but should have been, is money that the banks got to keep. It is nothing less than another massive, disguised subsidy for Wall Street’s big banks.¹⁹⁴



Buffett
Return Rate
+60%



U.S. Return
4%



Wall Street
Bank Subsidy
+56%

X. CAUSES OF THE CRISIS:

Wall Street's Bonus-Driven Culture of Recklessness, Irresponsible Risk-Taking, and Illegal Conduct

The causes of the financial crash and crisis will be debated for decades, if not longer. They were indeed multifaceted and complex. But make no mistake: The primary culprits were Wall Street's too-big-to-fail financial institutions that engaged in an almost unprecedented binge of risk-taking, irresponsible lending, and, at times, massive illegal conduct.

Some of this behavior was legal. Some of it was illegal. Some of it was criminal. Some of it was just unethical, irresponsible, or stupid. Much of it was a mix of all the above. Some of it contributed directly to the financial crisis, some of it indirectly. But Wall Street's reckless, high-risk behavior was all too representative of the freewheeling, anything-goes, money-soaked, bonus-driven culture that existed on Wall Street and throughout finance before 2008.

In far too many financial institutions, this culture still remains.

Wall Street and its apologists have been trying to shift the blame for the financial crisis to someone or something else since the very beginning. They blamed regulators and indebted homeowners. They blamed the Fed. They even tried to blame Jimmy Carter and a 40-year-old piece of legislation designed to expand credit in underserved communities.¹⁹⁵

But the facts show that for years prior to the crisis, banks gorged themselves on short-term debt and left themselves critically undercapitalized, originated poorly underwritten mortgages that they knew would never be repaid, and packaged these mortgages into deceptively valued securities and derivatives that they sold to unsuspecting investors around the world. Banks and bankers did these things because they were focused on short-term profits and huge bonuses—at the expense of their clients, customers, and counterparties, as well as the long-term viability of their companies and the U.S. economy.

And many if not most of those involved knew exactly what they were doing. In 2007, Citigroup's then-CEO Chuck Prince famously said, "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing."¹⁹⁶

In other words: "We know this risk-taking binge will likely end in disaster. But in the meantime, we're going to keep doing it and keep making as much money as fast as we can." Thus, legal or illegal, Wall Street's biggest too-big-to-fail banks irresponsibly maximized their short-term wealth based on incredibly dangerous leveraged risk-taking, courting disaster that ultimately fell on America's families, workers, taxpayers, and communities.

Wall Street's too-big-to-fail banks before the crisis: too much risk, too much leverage, too much irresponsible conduct.

The years before the crisis saw a dramatic increase in irresponsible and unethical behaviors by Wall Street. For example, Wall Street banks grew enormously while ramping up their leverage ratios to dangerously

high levels. They also originated as many subprime mortgages as they could, and created an insatiable demand for these mortgages, for example by financing “mortgage mills.”

The mortgage mills were part of Wall Street’s “originate to distribute” model, in which mortgage originators issued poorly underwritten subprime mortgages to borrowers who often could not afford them. Wall Street banks then bought these subprime mortgages and packaged them into mortgage-backed securities which were sold to other investors. Wall Street banks received their payments for these securities up front, regardless of whether the mortgage was repaid or not. The “originate to distribute” model thereby allowed Wall Street banks to book immediate profits and Wall Street bankers to collect bonuses for selling securities even when failure was all but certain. The short-term profits and bonuses made possible by this model thus incentivized the collapse in underwriting standards, creating massive mortgage fraud and a mountain of mortgages that were never going to be repaid.

Wall Street banks sold some of these mortgages (recklessly or fraudulently labeled as good) to the government housing finance agencies, Fannie Mae and Freddie Mac. Other mortgages were packaged into risky securities known as collateralized debt obligations, which in turn were used to structure derivatives. Wall Street banks used these derivatives to wring even more profit from the bound-to-fail if not designed-to-fail mortgage-backed securities they had already sold to unsuspecting investors.

This entire house of cards was driven by a compensation system that focused on short-term gains at the expense of long-term sustainability, fair dealing, and even compliance with the law. Pocketing the biggest bonus as fast as possible became almost the only thing anyone cared about in finance, from the lowly mortgage broker to the CEO of the world’s largest too-big-to-fail Wall Street bank.

Wall Street’s biggest banks grow even bigger, becoming too big and too complex to fail, manage, or regulate.

The major Wall Street banks have become not only too-big-to-fail, but also so large and complex that they cannot be effectively managed, regulated, or prosecuted. Accordingly, they pose an ever-increasing threat to the stability of the U.S. financial system. This dangerous evolution has come about largely as the result of extensive deregulatory legislation.

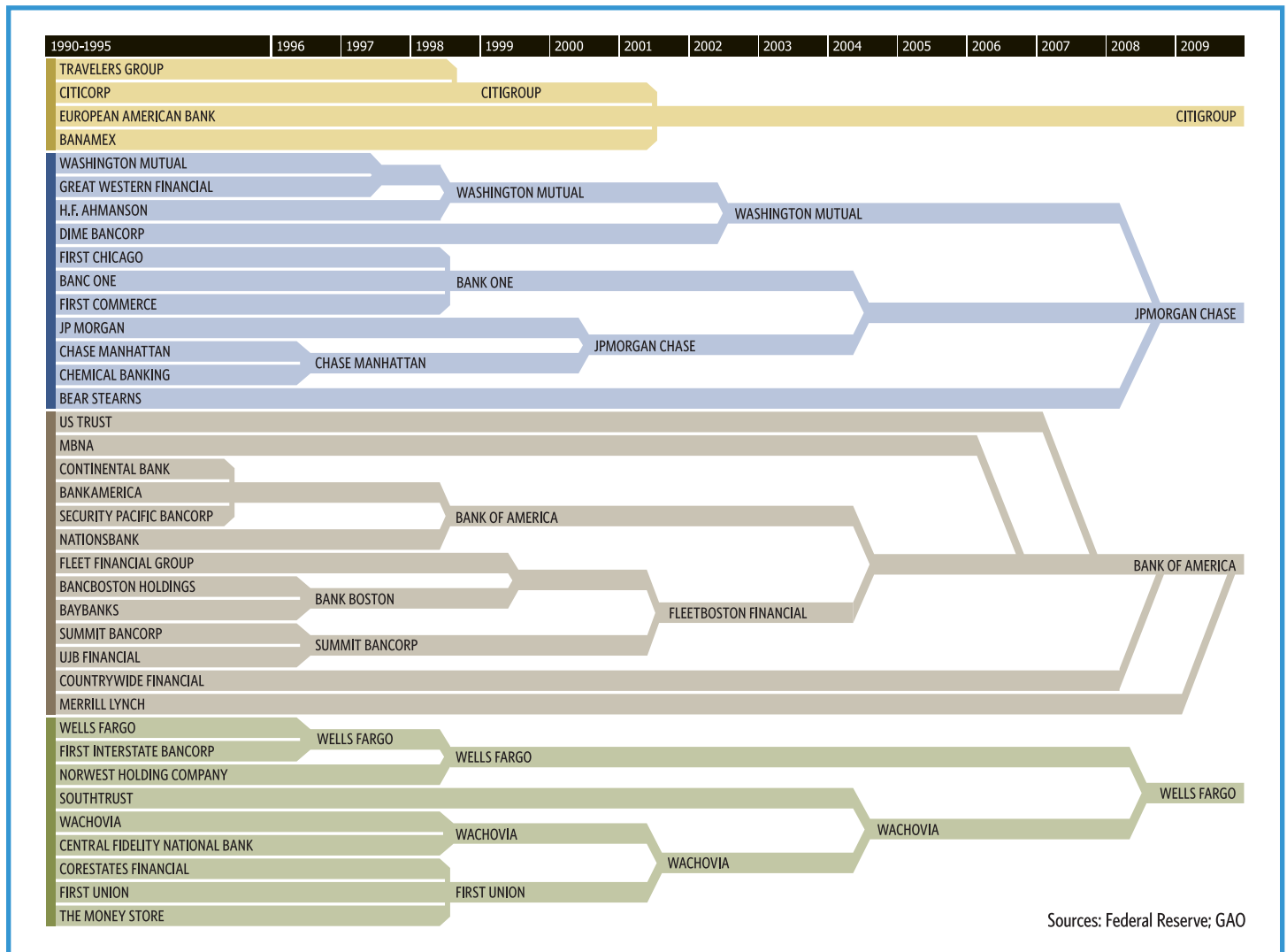
One key blow was the passage of the Gramm-Leach-Bliley Act in 1999. This law effectively repealed one of the key legal pillars enacted after the Great Depression: the Glass-Steagall Act.¹⁹⁷

The Glass-Steagall Act prohibited the same bank from engaging in both relatively low-risk traditional commercial banking (using FDIC-insured and Fed-backed savings accounts to make mortgage and business loans) and high-risk investment banking (running mostly unregulated trading and securities operations). Glass-Steagall kept those activities separate for more than 60 years, during which time the financial system avoided catastrophic meltdowns.

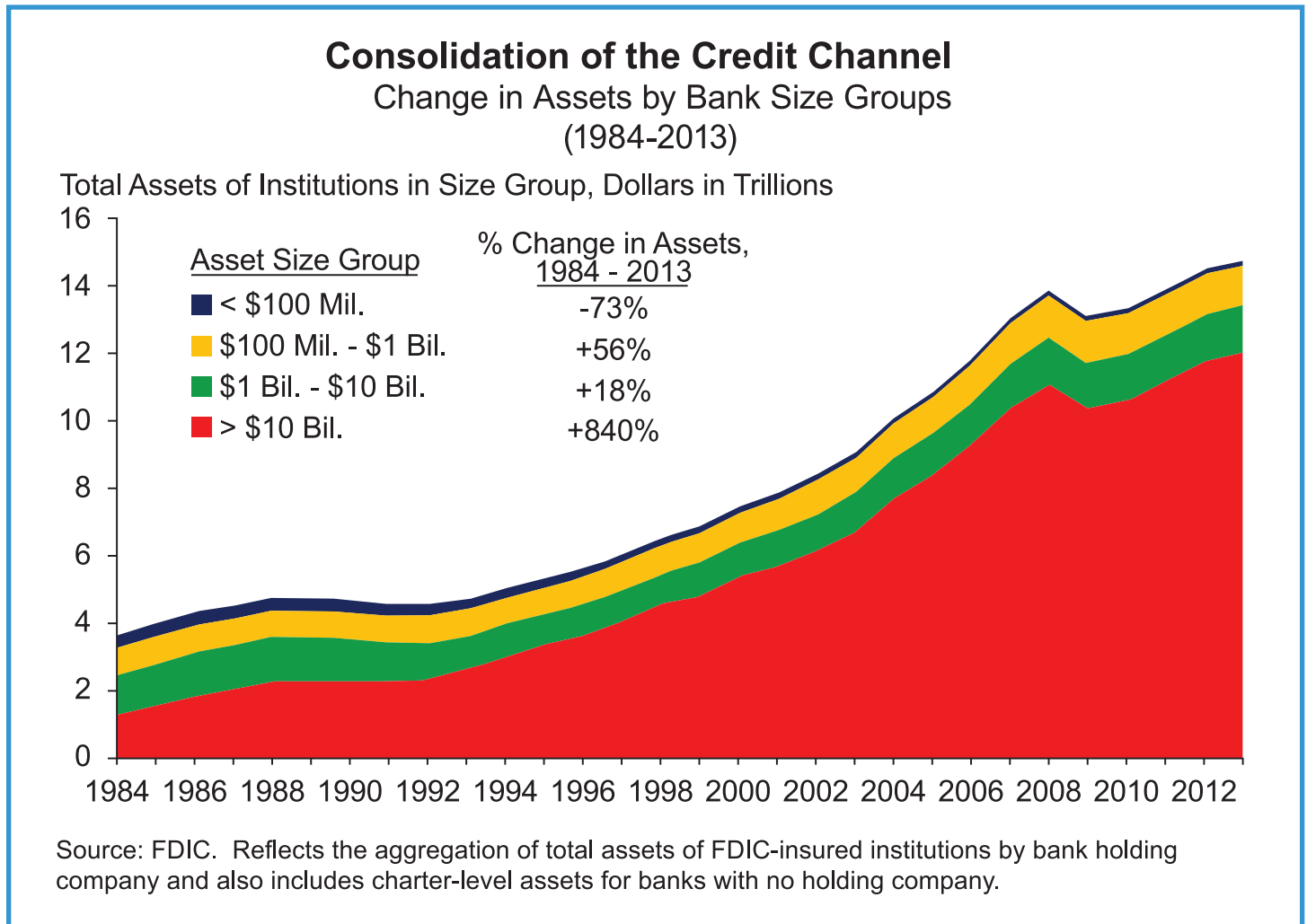
When Glass-Steagall was repealed in 1999, large financial institutions were able to acquire other financial institutions and combine their low- and high-risk activities. This is what threatened taxpayers and risked massive bailouts: If the uninsured investment banking activities of a combined financial institution got into trouble and threatened to take down the FDIC-insured part of the bank, then the government would inevitably have to save both parts in order to save the insured part.¹⁹⁸

Because Glass-Steagall prohibited banks from engaging in both commercial banking and investment banking at the same time, it prevented high-risk Wall Street gambling from endangering the real bank that engaged in socially useful traditional banking. As University of Chicago economist Luigi Zingales explains, "While Glass-Steagall may not be the most efficient form of regulation, it worked for more than sixty years . . . The beauty of Glass-Steagall, after all, was its simplicity: banks should not gamble with government-insured money. Even a six-year-old can understand that."¹⁹⁹

Repealing this law not only took down that critical separation; it also unleashed an acquisition spree that made the biggest banks bigger and bigger:



As those banks grew to colossal proportions, they accounted for an even larger share of the banking assets in this country:



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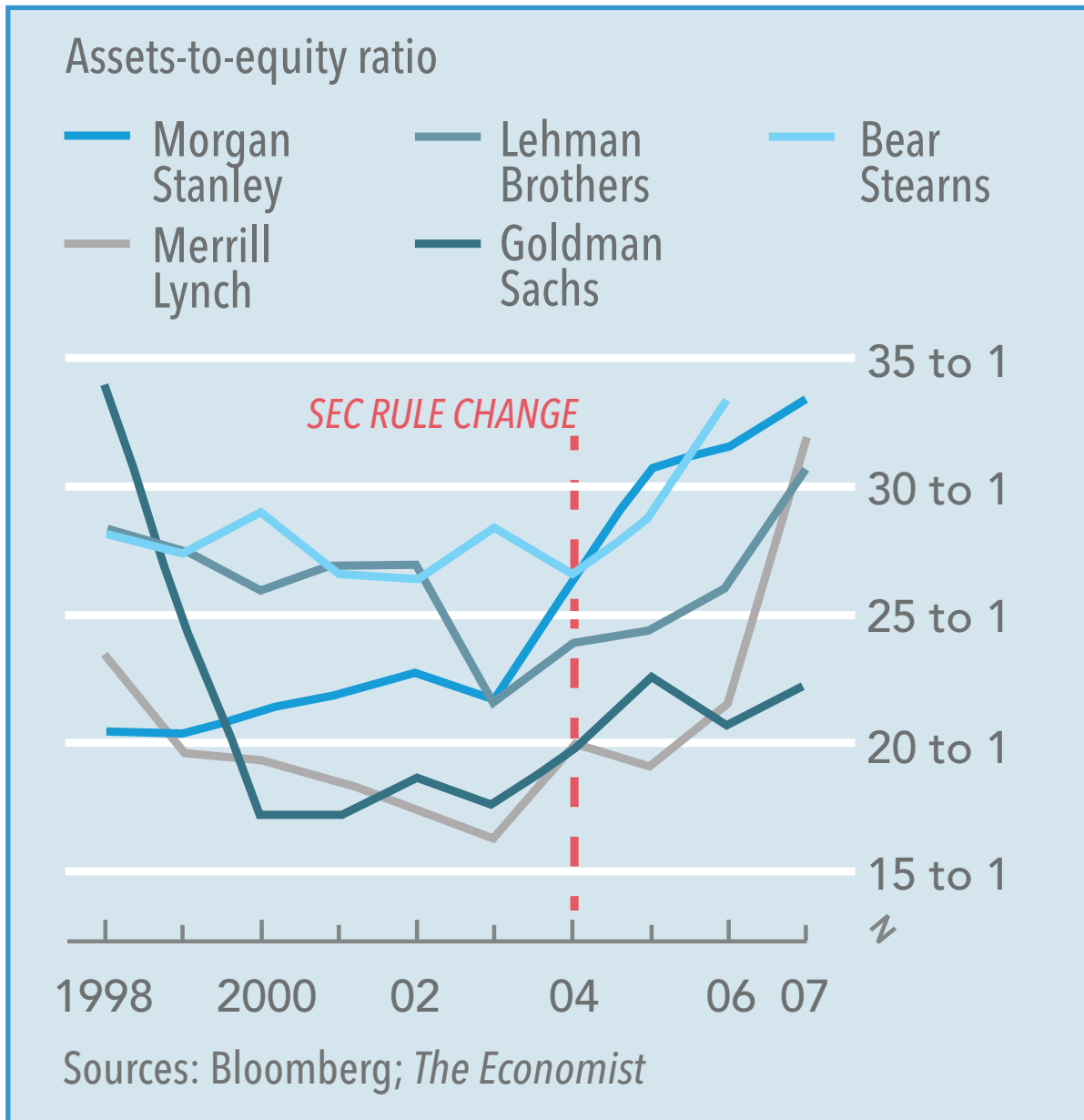
Those acquisitions and the elephantine growth in bank size that resulted were legal. Stupid. Dangerous. But legal.

Individually or in combination, these banks had become so large that, if they failed, they would endanger the entire banking and financial system, and ultimately, the entire economy. Because they exposed socially useful traditional banking to the losses that resulted from high-risk trading, the government and taxpayers ended up on the hook for all of it. That's exactly what happened in 2008.

Leverage Ratios

A bank's leverage ratio is the ratio of its assets to its capital on its balance sheet. The more capital and less debt that a bank uses to fund its assets, the safer it is. Conversely, the less capital and the more debt that a banks uses to fund its assets, the riskier it is.

In 2004, after years of lobbying by the biggest Wall Street banks, the SEC dramatically loosened its regulations governing leverage ratios for Wall Street banks. As a result, the typical leverage ratio for a big bank shot up to 33 to 1. With a leverage ratio this high, a mere 3% decline in asset values can essentially wipe out a company.²⁰² The collapse or bailout of several once highly regarded financial institutions, including Bear Stearns, Lehman Brothers, and Merrill Lynch, can be tied in significant part back to their excessive borrowing and extraordinarily high levels of leverage. Their very small capital bases proved grossly insufficient to absorb heavy losses, so when loans and investments began to decrease in value in 2008, these banks faced imminent failure, and costly bailouts ensued.



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Much of their borrowing was extremely short-term, often in the overnight markets, which meant that the borrowing had to be renewed every day. The big banks' reliance on short-term funding made their fragile balance sheets even more vulnerable to panics and runs.

Subprime Mortgage Originations

As Wall Street's biggest banks took on more debt, they used it to, among other things, finance the purchase of more subprime mortgages and issue more securities and derivatives based on those mortgages. In the early to mid-2000s subprime lending grew from a small niche corner of the mortgage market into a massive and increasingly hazardous one.

Former Fed Vice Chairman Alan Blinder has written about a pair of migrant workers who obtained a \$720,000 mortgage without putting a penny down. Blinder asks, "Should that mortgage have been granted? You may not be an experienced banker, but your *no* answer is correct." Yet Blinder points out that this kind of lending was common in the run-up to the crisis:

Other banks made similarly disgraceful loans. Yes, you are asking the right question: What were these guys smoking? Apparently, the weed was called greed. Make the loan, pocket the commission, pass it downstream, and let someone else worry about the consequences.²⁰⁴

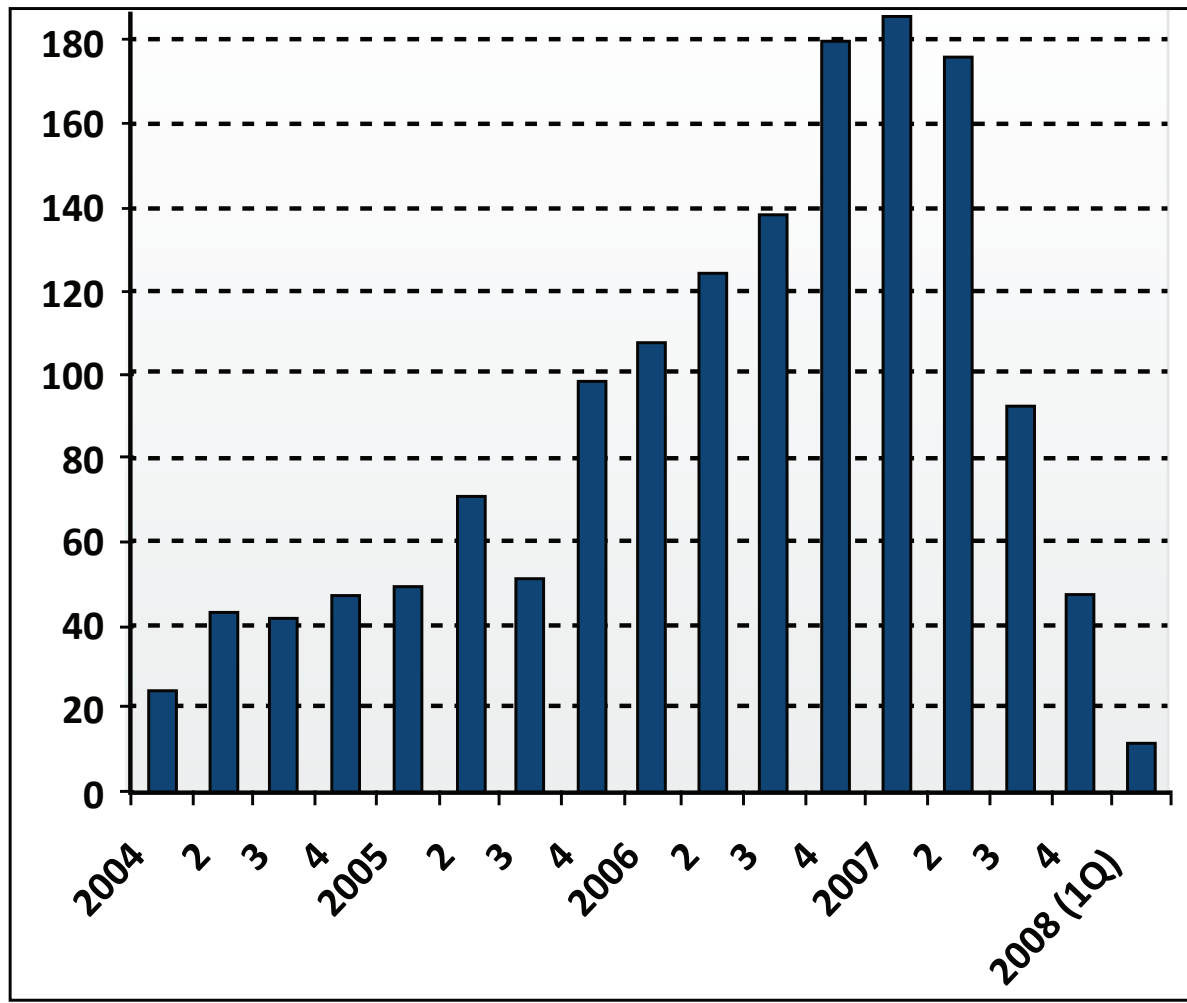
Big Wall Street banks were only too happy to buy these poorly underwritten mortgages from subprime originators because they then packaged them into purportedly low-risk securities by putting large numbers of them together in pools, which they then sold to unsuspecting investors, pocketing the fees up front, before the toxic mortgages, securities, and derivatives inevitably blew up.

Collateralized Debt Obligations (CDOs)

The pooled mortgages were often used by banks to create mortgage-backed securities known as collateralized debt obligations (CDOs). These CDOs were split up into smaller pieces, or tranches, based on their supposed degree of default risk. Investors snapped up the senior tranches of these CDOs because the credit rating agencies—Moody's, S&P and Fitch—stamped them with AAA ratings, essentially claiming they were as safe as U.S. Treasury notes guaranteed by the full faith and credit of the United States. As shown in the following chart, the CDO market grew exponentially during this time because Wall Street banks, with the help of the credit rating agencies, were able to sell CDOs as relatively safe investments that provided higher returns in a world of low interest rates.

Diagram B: CDO Issuance in Billions

Source: *Asset-Backed Alert*



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Derivatives

Even though the rating agencies blessed these CDOs with their highest ratings, investors (often the biggest Wall Street banks like Goldman Sachs) sought to further protect themselves from risk by buying insurance on those CDOs. In this case, the insurance was in the form of a “credit default swap” (CDS) on these securities. A CDS is a type of derivative that was supposed to protect investors against the possibility of default or decline in value of CDOs backed by subprime loans.

On top of this Wall Street’s biggest banks, like Goldman Sachs, and some of its biggest clients, like hedge fund manager John Paulson, also placed bets—referred to as “shorting”—that some of these securities and derivatives would in fact fail. Indeed, the biggest banks on Wall Street, allegedly including Citigroup, intentionally constructed these CDOs to fail and then shorted them, making a killing on both sides of the deal: first by charging unsuspecting investors for their services in constructing the built-to-blow up CDO, and then by pocketing billions of dollars when the shorted CDO failed.²⁰⁶

When the U.S. housing market crashed, it took trillions of dollars of CDOs built on poorly or fraudulently underwritten mortgages down with it. These CDOs did not provide the unsuspecting investors with their promised returns. Instead, they caused widespread losses, despite the rating agencies' AAA seal of approval. And as investors lost money on the CDOs they had bought, the banks that shorted the CDOs and so-called CDO-squared derivatives profited immensely as the securities lost value and failed.

Much of the CDS "insurance" written against the CDOs by one of the world's largest insurance companies—AIG—proved worthless, because AIG had failed to reserve one penny against any possible losses, which were quickly amounting to hundreds of billions of dollars. AIG's losses on the CDSs it had written quickly pushed it to the brink of bankruptcy, which threatened to cause the collapse of most of Wall Street's too-big-to-fail banks. As stated in an internal email dated Saturday, September 20, 2008 (just four days after AIG was bailed out) from the Federal Reserve Bank of New York, recently revealed in the AIG trial:

[Morgan Stanley] called [NY Fed President Tim Geithner] late last nite [Friday September 19, 2008] and indicated they cannot open on Monday [September 22, 2008]. [Morgan Stanley] advised [Goldman Sachs] of this and [Goldman Sachs] is now panicked because they feel that if [Morgan Stanley] does not open, then [Goldman Sachs] is toast . . .²⁰⁷

It was not just Wall Street at risk but the entire global financial system, because AIG had sold CDSs to Europe's largest banks.²⁰⁸ Given the risk that AIG's failure posed to the global financial system, the U.S. government bailed it out—initially at a cost of \$85 billion, which ultimately rose to \$182 billion.²⁰⁹ Yet despite the bailout of AIG, within just days the country was on the brink of a global financial crisis that would result in the worst recession since the Great Depression.

All of this happened after many years of deregulation. In particular, in 2000, Congress passed the Commodity Futures Modernization Act at the urging of financial industry lobbyists, which effectively prohibited the regulation of derivatives. This statute tied regulators' hands and prevented them from engaging in any meaningful oversight, regulation, or enforcement in the swaps derivatives markets. As a result, regulators lacked access to data that would have revealed the massive accumulation of risk represented by trillions of dollars in derivatives, including the CDSs that AIG and other financial institutions had written, created, packaged, sold, and distributed throughout the global financial system. This regulatory gap, coupled with the reckless and illegal practices of too-big-to-fail banks, led directly to the financial crisis.

Thus, those who claim that the behavior that caused the financial crash was legal are, in part, right. There was far too much reckless, irresponsible, and unethical—albeit legal—conduct that contributed to the crash. But that is only part of the story, as this narrative overlooks the massively illegal and, at times, criminal conduct that also contributed significantly to the crash.

Wall Street's too-big-to-fail banks also engaged in massively illegal and, at times, criminal conduct.

While much of what was done was legal, it cannot be denied that there was massive illegality in fraudulently inflating a historic housing bubble, intensified by an explosion in subprime mortgages bound to default, and the issuance of derivatives based on those poorly underwritten mortgages and related securities. Bear in mind, trillions of dollars of securities and derivatives had to be written down in value, often to zero.

This wasn't a case of one or two or three securities being overvalued by 10% or 20%. Entire categories of securities and derivatives had to be written off, often entirely. Just one example: when housing prices fell, one credit rating agency downgraded 83% of the \$869 billion in mortgage securities it had rated AAA in just one year, 2006.²¹⁰ These across-the-board downgrades and the losses they reflected were not the result of an occasional or intermittent mistake. Instead, they show that the crash was the result of pervasive industry-wide practices of fraudulently mispricing mortgages and the securities and derivatives based on them.

As one of the most insightful and prolific commentators²¹¹ on Wall Street's too-big-to-fail banks generally and Citigroup in particular,²¹² George Washington University Law School professor Art Wilmarth,²¹³ was quoted as saying (by Andrew Cockburn in his devastating critique of Citigroup "Saving the Whale, Again: The Catastrophic Incompetence of Citigroup):

You had systematic fraud at the origination stage, then you had systematic fraud at the securitization stage, then you had systematic fraud at the foreclosure stage. At what point do we consider these institutions to have become effectively criminal enterprises?²¹⁴

And yet not one executive, supervisor or staff from any of the too-big-to-fail Wall Street banks has been criminally convicted. Not one. As the ever-measured former Fed Vice Chair Alan Blinder, once again a Princeton professor, put it:

While many of the victims [of the financial crisis] were innocent, the perpetrators of the numerous frauds and near frauds were not. Yet who was punished for their crimes? The answer seems to be: Lee Farkas.

Who? Farkas was the head of a relatively small mortgage company called Taylor Bean & Whitaker. In 2002 he started down the primrose path by selling eight fraudulent mortgages to Fannie Mae, all of which defaulted before a single payment was made . . .

What is interesting about this case is not the colorful details . . . but the fact that Lee Farkas is apparently the highest-ranking financial official to be convicted and jailed for offenses relating to one of the largest financial crises America has ever seen. There must have been thousands of frauds leading up to the crisis. Some of them must have involved huge companies. And the head of Taylor Bean and Whitaker is the biggest fish to be fried? Can it really be true that the U.S. Department of Justice could find no bigger cases to prosecute?²¹⁵

The truth is that you can't "find" what you don't look for, and the Department of Justice's (DOJ) failure to genuinely make investigating the fraud that was at the core of the financial crash a priority will go down as a historic dereliction of duty.

The DOJ claims it did investigate, but could never find any evidence of criminal wrongdoing. In fact there was ample evidence of wrongdoing at the nation's largest financial institutions, if only the DOJ was willing to look for it. Perhaps the most compelling example is an astonishing investigative report done by PBS's Frontline entitled "The Untouchables."²¹⁶ It juxtaposes the stories of whistleblowers trying to tell anyone who would listen about the rampant fraud they witnessed and the excuses offered by the head of the DOJ's Criminal Division, which claimed the DOJ could not find evidence of a single crime at a major Wall Street bank connected to the largest financial crash since the Great Crash of 1929.

They either weren't looking, or they were the most incompetent prosecutors in history.

Similarly, in 2011, 60 Minutes produced an exposé entitled "Prosecuting Wall Street," featuring Tom Borgers, the senior fraud investigator for the Financial Crisis Inquiry Commission (FCIC). Borgers confirms that the FCIC "found evidence of trillions of dollars of fraud and gross negligence, and that in the area of mortgage fraud, he found crimes committed by 'mortgage originators, underwriters, banks . . . across the board.' Yet still no prosecutions." Also featured in the piece is whistleblower Richard M. Bowen III, who doggedly attempted to warn top executives at Citigroup about the bank's pattern of purchasing, packaging, and selling investments in high-risk mortgages. He was fired, and his strenuous efforts to prompt action by the SEC were to no avail. After listening to his revelations, documented in the 1,000 pages he turned over to the agency, the SEC archived his account of Citigroup's activities and never contacted him again.

That's not all. The financial journalist Bob Ivry has documented similar wrongdoing and malfeasance taking place at the big banks in his 2014 book The Seven Sins of Wall Street: Big Banks, Their Washington Lackeys, and the Next Financial Crisis.²¹⁷ For example, the book's first chapter, "Gluttony: Size: Sherry Hunt and the Champions of Responsible Finance," details not only the shocking facts of Citigroup's fraudulent mortgage practices, but also how they continued "for four years after the financial crisis."²¹⁸ How was Ivry able to compile all these facts? Because he talked to Citigroup employees who had firsthand knowledge and were whistleblowers.

One can only wonder what would have happened if the DOJ had cared enough to prosecute these crimes and had talked to whistleblowers like Sherry Hunt and many others.

There are mountains of other evidence suggesting massively illegal and possible criminal conduct. For example:

- In 2007, Citigroup sold \$847 million in notes related to a CDO it had structured. The CDO was allegedly specifically designed to fail so that Citigroup could make profits on a short position it took in the same deal, even as it promoted and sold the deal to unsuspecting investors. Although Citigroup eventually settled allegations of fraud related to this one deal for a pittance, Citigroup was "a conveyor belt creating, marketing and selling dozens and dozens of similar deals."²¹⁹ The SEC never investigated or prosecuted these other offerings.

- Goldman Sachs created what is referred to as the “Abacus deal,” which became notorious for the conflicts of interest it exposed at Goldman Sachs. In the Abacus deal, Goldman Sachs constructed a CDO whose failure was all but guaranteed. Goldman constructed the CDO with the help of one of its clients, who picked the mortgages that would make up the CDO. That client shorted the deal at the same time that Goldman was selling interests in the CDO to another client.²²⁰ Goldman Sachs settled charges arising from this conflict of interest with the SEC for \$550 million.²²¹ While \$550 million may seem impressive, the *American Lawyer* published an exposé revealing that the settlement was actually structured to mislead the public: It concealed the fact that the settlement covered many other allegedly fraudulent deals as well.²²² A reported criminal referral notwithstanding, the DOJ declined to prosecute.²²³
- The court-appointed bankruptcy examiner in the Lehman Brothers bankruptcy found that Lehman had used an accounting fraud tactic known as “Repo 105” to mislead investors and creditors about the state of Lehman’s finances before it collapsed in 2008.²²⁴ Despite the evidence uncovered by the bankruptcy examiner and the lengthy report laying out his findings and the grounds for proceeding against Lehman’s former executives, neither the SEC nor the Justice Department went after former Lehman executives for the fraud.
- In 2011, the Senate’s Permanent Subcommittee on Investigations issued several reports recounting myriad examples of wrongdoing at every stage of the financial crisis, from corrupt mortgage origination practices to failures at the credit rating agencies to fraud at investment banks related to their marketing of CDOs.²²⁵ Despite the startling evidence that the Permanent Subcommittee unearthed—including e-mails describing a CDO designed by Goldman Sachs executives to fail as a “shitty deal”—the Justice Department declined to prosecute.²²⁶
- In addition to Frontline’s “The Untouchables,” 60 Minutes’ “Prosecuting Wall Street,” and Bob Ivry’s detailed account of Citigroup’s pervasive and systemic fraudulent mortgage practices that continued four years after the financial crash, there have been numerous other reports of financial industry whistleblowers and investigations of wrongdoing that would have provided prosecutors detailed roadmaps for prosecutions. For example, JP Morgan Chase whistleblower Alayne Fleischmann tried repeatedly to get the feds to investigate illegal if not criminal conduct at JPMorgan Chase. The government’s failure to follow up on her allegations is a sad coda for the inexcusable failure of U.S. prosecutors and regulators to do their job to protect the American people, even given a credible eyewitness and a mountain of evidence. Her story is detailed in “The \$9 Billion Witness: Meet JP Morgan Chase’s Worst Nightmare.”²²⁷
- Just this year, a federal judge in the Southern District of New York found that Nomura Holdings and the Royal Bank of Scotland (RBS) had committed fraud in bundling shoddy mortgages into securities and selling them to Fannie Mae and Freddie Mac. As the judge found in a 361-page decision, the mortgage-backed securities being sold by the banks were full of misrepresentations: “The magnitude of falsity, conservatively measured, is enormous.”²²⁸

Unfortunately, lawsuits like the one against Nomura and RBS are the exception that prove the rule. The government failed to put the effort it could have and should have into holding the biggest banks accountable for their misconduct in the run-up to the financial crisis. If mere private litigants could develop a massive record proving “enormous” fraud, as in the Noumura case, prosecutors bringing the

full weight and resources of the federal government to bear could undoubtedly have uncovered vastly more crime—if only they had made accountability for the crisis a priority.

As a result, there can be little doubt that many of Wall Street's worst actors have escaped personal responsibility for their role in the crisis. Unlike in past eras of rampant financial wrongdoing, including the Great Depression and the savings and loan scandal of the 1980s and 1990s, no criminal cases have been brought against Wall Street's senior executives. In contrast, during the savings and loan scandal, which was one-seventieth the size of the most recent crisis in terms of losses, regulators made more than 30,000 criminal referrals, resulting in more than 1,000 convictions.²²⁹

1,000+

People convicted in the savings and loan scandal of the 1980s and 1990s

0

Wall Street executives convicted for actions during the 2007-2008 financial crisis

During the savings and loan investigations some of the biggest, most powerful and well-connected bankers were investigated and tried for their illegal conduct. Among those who faced jail time for their roles in the scandal were Charles Keating Jr., whose Lincoln Savings and Loan cost taxpayers \$3.4 billion, and David Paul, for his role in the \$1.7 billion collapse of Centrust Bank. Each received prison sentences of more than 10 years.

“Their [regulators] policies have created an exceptional criminogenic environment. There were no criminal referrals from the regulators. No fraud working groups. No national task force. There has been no effective punishment of the elites.”

- William Black,

Professor of law at the University of Missouri at Kansas City
and the federal government Director of Litigation during the savings and loan crisis
(April 2011)

Many of the convictions related to the savings and loan crisis were based on criminal referrals from regulators directly to government prosecutors. These referrals proved critical because they provided a roadmap for an undermanned DOJ to follow as it navigated the world of financial crime. In the years since the most recent financial crisis, criminal referrals have been virtually nonexistent.^{230,231}

As Professor Black points out, rather than aggressively investigating and prosecuting the banks and bank executives for their wrongdoing in connection with the 2008 financial crisis, regulators and law enforcement officials appear to have given the banks a pass for their part in bringing about the financial crisis.

While this prosecutorial forbearance may have been acceptable in the months immediately following the collapse of Lehman Brothers in September 2008 due to the precarious state of the banking and financial system, it certainly was not reasonable as the risk of a second Great Depression abated. Remarkably, and indefensibly, the Attorney General himself disclosed why there would be no criminal prosecutions of the nation's largest banks: He feared that such a prosecution might itself cause a financial panic and have systemic collateral consequences.²³² This absurd and baseless thinking resulted in Wall Street's biggest too-big-to-fail banks also becoming too-big-to-jail, even for crimes that caused the financial crash and the devastating economic wreckage that followed.

The many settlement and financial penalties paid indicate, but do not disclose, the broad range of illegal activities and misconduct that helped cause the financial crisis.

It is true that the government has settled numerous civil and criminal matters with Wall Street's too-big-to-fail banks and others. However, those settlements have been carefully crafted more to conceal than to reveal the wrongdoing, as Better Markets has detailed a number of times.²³³ Notably, individuals are almost never charged or punished in connection with any of those cases, which are settled with fines that are paid with shareholders' money and are often tax-deductible. In effect, taxpayers bailed out the banks, suffered the economic calamity those banks caused, and then ended up paying for these settlements, which are more about headlines than accountability or deterrence.

While regulators and prosecutors brag about the big dollar amounts of these settlements, they never disclose sufficient information to determine if those amounts, however large, are adequate or appropriate. For example, they don't disclose the amount of investor losses or how much the bank gained by its illegal conduct. In fact, multibillion-dollar fines have become so commonplace on Wall Street that market observers often remark that banks merely consider it a "cost of doing business."²³⁴ If a case is settled for the seemingly large amount of \$10 billion, but investor losses (or bank gains) were \$100 billion, then the settlement amount in relative terms is neither large nor appropriate. Better Markets detailed this lack of transparency and proportionality between settlement amounts, investor losses, and bank profits in the case it filed against the DOJ in connection with its settlement with JPMorgan Chase.²³⁵

That said, these cases do illustrate the banks' broad range of illegal and fraudulent conduct, including cheating mortgage investors, laundering money, and evading taxes. Banks have also faced a slew of civil lawsuits. While disclosure in those cases has been grossly inadequate, there is sufficient information to suggest the widespread illegality, often involving dozens if not hundreds of bank employees, which appears to be standard business practice at some of the country's and the globe's biggest too-big-to-fail banks.

"Markup is making sure you make the right decision on price... which is what's the worst price I can put on this where the customer's decision to trade with me or give me future business doesn't change...If you ain't cheating, you ain't trying."

**- Barclays Trader and Vice President in New York
(2010)**

An examination of the prominent cases brought by the U.S. government, along with various state and international authorities, begins to demonstrate the extent and nature of the egregious wrongdoing committed by the Wall Street and global too-big-to-fail banks before, during, and after the financial crisis.

Pervasive fraud in the sale of residential mortgage-backed securities

- **Bank of America:** In August 2014, the Department of Justice (DOJ) announced that it had reached a \$16.65 billion settlement with Bank of America, resolving federal and state claims relating to financial fraud leading up to and during the financial crisis. The bank “acknowledged that it sold billions of dollars of RMBS [Residential Mortgage Backed Securities] without disclosing to investors key facts about the quality of the securitized loans . . . The bank has also conceded that it originated risky mortgage loans and made misrepresentations about the quality of those loans to Fannie Mae, Freddie Mac and the Federal Housing Administration.”²³⁶
- **Citigroup:** In July 2014, Federal and State authorities secured a \$7 billion settlement with Citigroup “for misleading investors about securities containing toxic mortgages.”²³⁷ Citigroup acknowledged that it seriously misrepresented the nature of the mortgage loans it securitized and sold in the years leading up to and during the financial crisis, leading the DOJ to announce that the “bank’s activities contributed mightily to the financial crisis that devastated our economy in 2008.”
- **JPMorgan Chase:** In November 2013, the DOJ, along with other federal agencies and six states, reached a settlement with JPMorgan Chase for \$13 billion over its fraudulent sale of residential mortgage-backed securities. As the DOJ observed when announcing the settlement, the bank was “packaging risky home loans into securities, then selling them without disclosing their low quality to investors,” eventually “sow[ing] the seeds of the mortgage meltdown.”²³⁸ The out of court deal provided little information about the nature and extent of JPMC’s illegal activities or the magnitude of the resulting harm, as detailed in court filings by Better Markets challenging the settlement.²³⁹
- **JPMorgan Chase and Credit Suisse:** In November 2012, JPMorgan and Credit Suisse agreed to pay a combined \$417 million to settle SEC charges that the two firms misled investors in the sale of nearly \$2 billion in troubled mortgage securities. The director of the SEC’s Division of Enforcement commented that “misrepresentations [like these] in connection with the creation and sale of mortgage securities contributed greatly to the tremendous losses suffered by investors once the U.S. housing market collapsed.”²⁴⁰
- **Citigroup:** In February 2012, Citigroup admitted engaging in widespread RMBS fraud and paid a \$158.3 million fine, due to the courageous effort of a whistleblower. While its fine is not as large as some others, the settlement is important for what it discloses about the bank’s behavior: Citigroup was engaging in mortgage fraud as late as 2012—four years after the crash.
- **Citigroup:** In October 2011, the SEC charged Citigroup with misleading investors about a \$1 billion Collateralized Debt Obligation (CDO) tied to the housing market. This CDO defaulted only

a few months after being sold, and Citigroup wound up making at least \$160 million in fees and trading profits. Citigroup paid a \$285 million fine to settle the charges.²⁴¹ The SEC also charged a single, mid-level employee in that case, Brian Stoker, but he refused to settle. In August 2012, a federal jury found in favor of Stoker. After rendering their verdict, they signaled their displeasure with the lackluster enforcement effort aimed at those who violate the financial laws, noting that “[t]his verdict should not deter the SEC from continuing to investigate the financial industry, to review current regulations, and modify existing regulations as necessary.” The most disturbing aspect of the case is not the acquittal, but the fact that the SEC charged a single mid-level employee for Citigroup’s derivatives misconduct leading to the financial crisis, and none of the dozens or hundreds of other employees, officers, and executives involved.²⁴²

- **Washington Mutual:** In March 2011, the Federal Deposit Insurance Corporation (FDIC) filed a civil suit against three former executives of the failed Washington Mutual Bank. The executives stood accused of allowing fraudulent lending and knowingly selling problem loans to investors. Notably, the suit was one of the few to seek personal accountability for the financial practices that derailed the U.S. economy. The FDIC had initially sought \$900 million in damages; the executives eventually agreed to a \$64 million settlement.
- **Countrywide Financial:** In October 2010, the SEC charged that Countrywide CEO Angelo Mozilo knowingly misled investors about the firm’s lending practices, citing e-mails in which he referred to his own company’s loan portfolio as “toxic” and “poison.” He settled the case, agreeing to a \$67.5 million penalty, almost all of which was paid by insurance or by the company.²⁴³
- **Citigroup:** In July 2010, the SEC brought an enforcement action against Citigroup and two of its executives, alleging that the bank had misled investors about its exposure to subprime mortgage-related assets, and that the executives had caused the bank to make the misleading statements in an SEC filing. This was the first case against bank executives for their personal involvement with subprime mortgage bonds. However, Gary Crittenden, Citigroup’s former Chief Operating Officer, and Arthur Tildesley, Jr., its former Director of Investor Relations, were fined only \$100,000 and \$80,000, respectively. For its part, Citigroup agreed to pay a \$75 million penalty.
- **Goldman Sachs:** In July 2010, Goldman Sachs agreed to pay \$550 million to settle SEC charges that the firm misled investors in the sale of a mortgage-backed security called Abacus 2007-AC1. The SEC charged “that Goldman misled investors in a subprime mortgage product just as the US housing market was about to collapse.” In agreeing to pay the penalty, Goldman “acknowledged that its marketing materials for the subprime product contained incomplete information.”²⁴⁴ Only trader Fabrice Tourre, a small cog in the Goldman Sachs machine,²⁴⁵ was found liable for defrauding investors in the soured mortgage deal, and paid the SEC \$1 million in penalties.²⁴⁶

Manipulation of the foreign currency market

- **Citigroup, JPMorgan, Barclays and Royal Bank of Scotland:** In May 2015, the DOJ announced that these four banks had agreed to plead guilty to charges of conspiring to manipulate the price of U.S. dollars and euros exchanged in the foreign currency exchange spot market. Together, the banks agreed to pay criminal fines of more than \$2.5 billion. Attorney General Loretta Lynch referred to their conduct as “egregious.” Another official castigated the banks for “undermining the integrity and competitiveness of foreign currency exchange markets.”²⁴⁷

Aiding and abetting tax evasion

- **Credit Suisse:** In May 2014, Credit Suisse pled guilty to DOJ charges of conspiracy to aid and assist U.S. taxpayers in filing false income tax returns and other documents. The agreement provided that the Swiss corporation pay a total of \$2.6 billion, to be divided between the DOJ, the Fed, and the New York State Department of Financial Services.²⁴⁸

Money laundering

- **HSBC:** In December 2012, HSBC admitted to money laundering violations, and agreed to pay \$1.9 billion in a settlement with federal, state, and international authorities. According to the Department of the Treasury, the banks’ breakdown in anti-money laundering compliance enabled hundreds of millions of dollars of Mexican drug money to flow through accounts in the United States.²⁴⁹ What’s more, the bank violated a number of U.S. sanctions by conducting transactions on behalf of customers in Cuba, Iran, Libya, Sudan and Burma.²⁵⁰

Manipulation of the LIBOR benchmark interest rate

- **LIBOR Scandal:** Since 2012, international authorities have been investigating a widespread plot by multiple banks—most notably Deutsche Bank, Barclays, UBS, Rabobank, JPMorgan, and the Royal Bank of Scotland—to manipulate the London Interbank Offered Rate, or LIBOR, for profit. LIBOR underpins over \$300 trillion worth of loans worldwide, and the scandal has shaken trust in the global financial system. Investigations continue today, and so far regulators in the United States, UK, and European Union have fined banks more than \$9 billion.²⁵¹ UBS’s actions were particularly egregious, and to date, they alone have settled for \$1.52 billion in penalties.²⁵² An assistant attorney general referred to the scandal as “epic in scale, involving people who have walked the halls of some of the most powerful banks in the world.”²⁵³

More reckless derivatives trading: the London Whale

- **London Whale:** In May 2012, JPMorgan revealed that it had sustained an estimated \$2 billion in losses associated with a series of credit default swap (CDS) transactions made through its London branch.²⁵⁴ It later became apparent that the losses totaled at least \$6.2 billion.²⁵⁵ The trader most directly involved in these transactions (i.e. the London Whale) is not facing criminal prosecution, but his former boss and a junior trader were indicted in 2013 for committing securities fraud by

hiding the true extent of the losses from senior management.²⁵⁶ Due only to the investigation of a U.S. Senate subcommittee and not federal authorities, in September 2013, JPMorgan agreed to pay a combined \$920 million in penalties to US and UK authorities for engaging in “unsafe and unsound practices.”²⁵⁷ The following month the bank agreed to pay \$100 million in fines to the CFTC because, by pursuing an aggressive trading strategy, its “traders recklessly disregarded” the principle that markets should set prices.²⁵⁸ The scandal is particularly worrisome because it shows that only a few years after 2008, JPMorgan was once again engaged in similar types of large-scale, risky, proprietary trading in complex derivatives that contributed to the financial crisis.

Seven years out, we are still grappling with financial industry wrongdoing on a massive scale.

The financial industry seems to have forgotten everything and learned nothing from its role in bringing about the greatest financial crisis and worst economic recession since the Great Depression. Since the crisis, numerous criminal and civil investigations have revealed staggering new evidence of financial industry employees, including many senior executives, misleading investors, exploiting homeowners, and engaging in fraudulent lending practices. For the sake of extravagant personal gain, they jeopardized—and continue to jeopardize—the entire global financial system.

The big banks’ ethical weaknesses are pervasive, extending to more than just the housing finance system. Recent investigations have shown that the big banks have been willing to help customers hide assets and cheat the tax system, that their bankers are willing to help clients evade anti-money laundering laws aimed at ending narcotics trafficking and terrorist financing, and that their traders are willing to manipulate key benchmark interest rates.²⁵⁹

Perhaps the most troubling part of this list of penalties and fines is that the banks still don’t get it. In 2012, four years after the financial crisis erupted, news reports broke that the JP Morgan derivatives trader known as the London Whale had lost more than \$6 billion using \$350 billion in insured deposits to make a series of complex bets on CDS indices. JP Morgan’s CEO dismissed concerns about the multi-billion dollar loss, as well as the reckless risk-taking that led to the loss, as a trivial “tempest in a teapot.” But as the U.S. Senate’s Permanent Subcommittee on Investigation found, the episode was anything but that:

The JPMorgan Chase whale trades provide another warning signal about the ongoing need to tighten oversight of banks’ derivative trading activities, including through better valuation techniques, more effective hedging documentation, stronger enforcement of risk limits, more accurate risk models, and improved regulatory oversight.²⁶⁰

The amount of fines and penalties for the largest banks has steadily increased since 2009. U.S. and European banks paid nearly \$65 billion in penalties and fines in 2014, topping the previous high reached in 2013 by about 40%.²⁶¹ This sum hints at the staggering number and scope of crimes committed by the banks against our nation’s economy, and ultimately, its people.

The American people demand and deserve more. More oversight, more transparency, and above all more accountability for Wall Street’s biggest banks and top executives. From 2005 to 2007, JPMorgan made \$38 billion in after-tax profit. In the three years following the crisis year of 2008, the bank made \$48 billion. This was lucre for a bank that only months ago in May 2015 pled guilty to charges of knowingly manipulating foreign exchange markets in 2008, just one example of countless instances of unethical, illegal, and criminal behavior.

What's worse, the tone set at the top by the executives suggests that breaking the laws, even engaging in criminal conduct, is not really that bad. For example, when pleading guilty to the crime of rigging the foreign exchange markets, JPMorgan Chase's CEO dismissed this criminal conduct as virtually nothing. The CEO of Bank of America referred to it as "an embarrassment." While the headlines blared "Rigging of Foreign Exchange Markets Makes Felons of Top Banks,"²⁶² the CEOs were sending an entirely different message to their troops: no big deal, back to business as usual. And why not? Almost all the pain and penalty suffered by anyone else pleading guilty to a serious felony had been very carefully removed by the prosecutors and regulators to ensure that the bank's penalty was little more a fine, again paid by shareholders.

As long as the price for committing crimes remains so low, meaningless, and manageable, then the too-big-to-fail banks will be rewarded for past crimes and incentivized to commit more crimes. After all, crime pays, and that is the most frightening aspect to the double standard of non-enforcement of the laws on Wall Street: It paves the way for another crash and crisis.

XI. DODD-FRANK REFORM AT RISK

In July 2010 President Obama signed into law the Dodd-Frank Financial Reform and Consumer Protection Act, a comprehensive law designed to rein in Wall Street's reckless and illegal activity. Consisting of 16 sections—together representing the most significant changes in financial regulation since the Great Depression—Dodd-Frank established a new regulatory framework to govern derivatives markets, gave regulators more authority, and created new agencies to fill gaps in oversight and enforcement, including the Financial Stability Oversight Council (FSOC) and the Consumer Financial Protection Bureau (CFPB).

Wall Street did everything it could to prevent passage of Dodd-Frank, and in the years since, has used its unlimited resources to conduct a broad campaign to weaken, roll back, or completely kill the reforms. This isn't because those at Wall Street's too-big-to-fail banks are evil. It's because financial reform is designed to eliminate or reduce the highest-risk financial gambling, which enriches Wall Street bankers and traders while endangering everyone else in America, as proved by the many costs of the 2008 financial crash and the Great Recession.

Wall Street's campaign against financial reform has taken on many different forms: advancing bills to repeal all or part of the law; working with allies in Congress to ensure critical regulatory agencies are underfunded and understaffed; lobbying regulatory agencies to weaken or kill their rules; challenging agency rules in court; and attempting to sway Americans' opinions through misleading public relations campaigns.

Weakening Dodd-Frank before passage, trying to undermine it ever since.

Even as the financial reform law later referred to as Dodd-Frank was taking shape in Congress in 2009 and 2010, Wall Street was working overtime to defeat and weaken it. In fact, Wall Street succeeded in defeating several of Dodd-Frank's strongest provisions even before it became law. One of these would have prohibited naked credit default swaps, a practice where banks essentially take out insurance on bonds or other financial instruments without actually owning them. It's pure speculation and gambling, providing no benefit to the broader economy. But this provision (and many more) didn't make it into Dodd-Frank due to aggressive Wall Street lobbying.



President Barack Obama meets with Rep. Barney Frank (D-Mass), Sen. Dick Durbin (D-Ill), and Sen. Chris Dodd (D-Conn) in the Green Room of the White House prior to a financial regulatory reform announcement on June 17, 2009.

Since 2010, the financial industry has implemented a number of devious and ingenious plans to further undermine and weaken Dodd-Frank and financial reform more broadly. One strategy is to hide their narrow special interests behind something that has broad support, like community banks, jobs, and economic growth. We call it their “Trojan Horse” strategy. They use it all the time to pretend to care about one thing, while really delivering Wall Street its wish list of rolling back reform.

Another strategy is when Wall Street lobbyists draft legislation (again almost always mislabeled or innocuously labeled) that is able to pass the majority Republican House with just a few votes from Democrats. They then call it “bipartisan” no matter how few votes the other party provides. Once such measures are approved in the House, Wall Street’s allies work to have them included in much larger, so-called “must-pass” bills. Those bills are so important that they are almost impossible for the President to veto—even though he would immediately veto the Wall Street special interest provision if it were a standalone bill. A closer examination of one such action from late 2014 shows how this Wall Street shell game works.

“It is because there is a lot of money at stake. They want to be able to take big risks where they get the upside and the taxpayer gets the potential downside.”

- Simon Johnson,
former Chief Economist of the International Monetary Fund
(2014)

Case Study:

How Citigroup Lobbyists Wrote the Repeal of the Swaps “Push Out” Rule, a Critical Provision of Dodd-Frank

In late 2014, Wall Street took advantage of a must-pass federal budget bill to tack on an entirely unrelated Wall Street special interest proposal that significantly weakened Dodd-Frank.

One of Dodd-Frank’s most important provisions, the swaps “push out” rule (also referred to as Section 716 or the Lincoln Amendment) required that banks “push out” some of their highest-risk derivatives trading into separate subsidiaries that are not backed by the government’s deposit insurance fund. In light of the events that led up to the financial crisis, it became clear that this rule was essential to isolating the riskiest derivatives trading from the parts of a bank that are backed by taxpayers and therefore eligible for a government bailout in times of distress.

To remove this provision, Wall Street launched a series of calculated maneuvers: In 2011, Citigroup’s lobbyists drafted and distributed a proposal that exempted a wide array of derivatives from the push out plan, including many of the riskiest products. In early 2013, a bill that repeated Citigroup’s language almost word-for-word sailed through the Republican-controlled House Financial Services Committee. In fact, Citigroup’s recommendations were mirrored in more than 70 lines of the 85-line bill. The House approved the bill in late 2013, but it subsequently died in the Senate.²⁶³

Then, in late 2014, Congress faced a government shutdown unless it passed the \$1.1 trillion continuing resolution omnibus bill known as the “Cromnibus.” Seeing an opportunity, Wall Street-allied lawmakers revived the Citigroup proposal. They successfully killed the swaps push out rule by including it in Cromnibus at the final hour,²⁶⁴ which the President could not veto without shutting down the entire government.

Once again, Wall Street and its allies put its special interests above every other priority in the country: The President could only veto the Wall Street special interest provision if he also vetoed funding for defense, homeland security, critical medical research at the National Institutes of Health, and all other funding for the entire government. Wall Street essentially took all those national priorities hostage and dared the President to deny them all funding . . . or sign the bill, repeal the swaps push out provision, and deliver Wall Street a big victory. As Wall Street and its allies knew, the President had to sign the bill.

Neutering the regulators, with a little help from Wall Street’s friends.

The street cops on the Wall Street beat are the regulatory agencies, the SEC and CFTC, and the DOJ is like the state police who come in to handle the worst crimes. Unfortunately, as detailed earlier in this report, the DOJ has abdicated its duty to genuinely and seriously investigate and properly punish and deter financial crimes. And against the financial might of Wall Street, the SEC and CFTC are severely outmanned and outgunned. Their staffing and financial resources, at a time when they need them most, are grossly inadequate to do the job the law mandates them to do: police and regulate the capital, commodities, and derivatives markets. Wall Street’s army of high-priced lobbyists are making sure of it.

In the first three quarters of 2014, the securities and investment industry spent nearly \$74 million on lobbying—on 704 registered lobbyists—and was on pace to exceed the \$99 million spent in 2013. Lobbying expenditures by every specific industry group declined in 2014, except for the finance, insurance, and real estate sectors, which increased spending by 2.5%.²⁶⁵

These figures, remarkable in isolation, do not even factor in campaign contributions to federal candidates and parties. According to the *New York Times*, Wall Street banks, companies, and trade associations spent \$1.2 billion to influence policymaking through lobbying and campaign contributions in the 2014 election cycle.²⁶⁶ To put that in perspective, the two-year total represents:

The Price of Influence

**\$2.6 million spent on
each member of Congress**

**\$3,600 per day for each
member of Congress**

The companies and trade associations from across financial services who spent the most on lobbyists and contributions during 2013 and 2014 were:

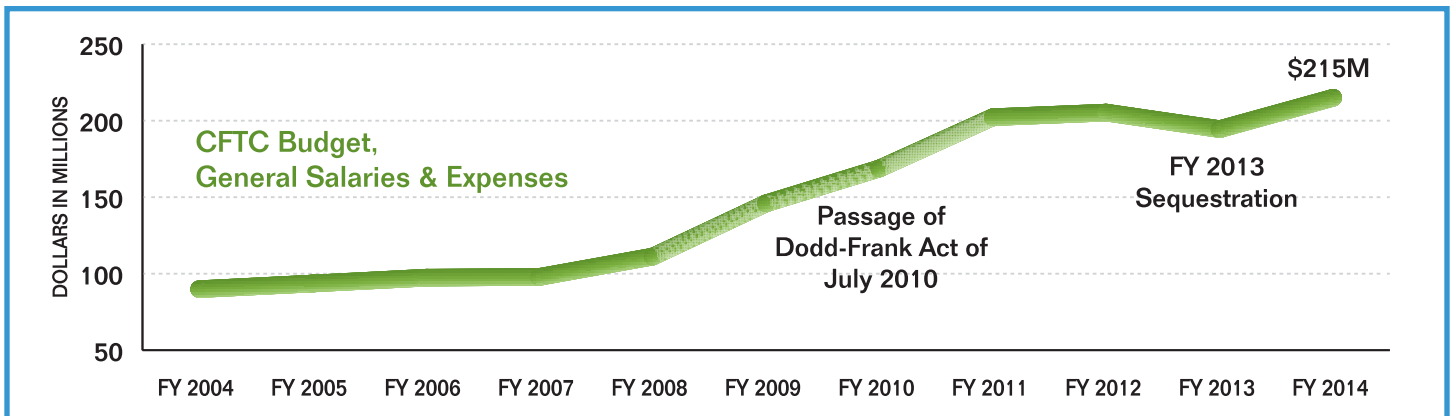
| Bank | 2013-2014 Spending on Lobbying and Contributions (from PACs and employees) |
|--|--|
| National Association of Realtors (NAR) | \$108,600,587 |
| Bloomberg LP | \$29,507,919 |
| American Bankers Association (ABA) | \$21,793,285 |
| Prudential Financial | \$17,063,418 |
| Wells Fargo | \$14,997,935 |
| JPMorgan Chase & Co | \$14,332,987 |
| Elliott Management | \$14,132,223 |
| MetLife Inc. | \$14,038,168 |
| Credit Union National Association (CUNA) | \$13,916,950 |
| Securities Industry & Financial Market Association (SIFMA) | \$13,460,675 |
| Citigroup Inc. | \$13,317,526 |
| Investment Company Institute (ICI) | \$12,370,873 |
| Financial Services Roundtable (FSR) | \$12,154,954 |
| Goldman Sachs | \$11,690,474 |

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Wall Street's unprecedented spending on political influence contrasts strikingly with the severe underfunding and understaffing of key regulatory bodies responsible for regulating them. For example, the CFTC has been consistently and indefensibly underfunded. Before the crash, the CFTC was responsible for regulating the almost \$40 trillion futures markets. However, because derivatives were unregulated and because they were a primary cause of the 2008 crisis, the Dodd-Frank financial reform law gave the CFTC the responsibility for regulating and policing the derivatives markets, which globally were almost \$700 trillion, with about half of that in the U.S. derivatives markets.

Thus, the jurisdiction and responsibility of the CFTC expanded from about \$40 trillion to more than \$400 trillion. But, what happened to its budget? It barely budged. Why? Because Wall Street used its political allies to make sure that the CFTC was so underfunded that it could never properly regulate and police the derivatives markets, where Wall Street makes its biggest bonuses. It's like Al Capone setting the budget for the Chicago police: He'd make sure they'd never have enough money to get him.

Here's the pathetic funding that Wall Street's allies have allowed:



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That indefensible abdication of responsibility continues, as the Republican House just approved nominal level funding for the CFTC for fiscal year 2015 at \$250 million. But due to gimmicks included in the bill, this will actually end up being less and actually amounts to a cut in funding. Thus one of the most important regulatory agencies responsible for policing one of the largest and most dangerous financial markets will continue to be handcuffed by Wall Street's allies from doing its job and protecting the American people.

“Keep in mind that some of our major financial institutions are spending more on cybersecurity each year than our agency’s entire budget.”

- Tim Massad,
CFTC Chairman
(2014)

While not quite as bad, another example is the SEC. Its total budget authority in 2013 was \$1.33 billion, down from \$1.35 billion in 2012. Compare that to these “minor expenses” from some of the biggest banks on Wall Street:

- \$1.8 billion: Bank of America’s 2013 marketing expenses²⁶⁹
- \$2.2 billion: Goldman Sachs compensation and benefits in the 4th quarter of 2013²⁷⁰
- \$1.9 billion: Citigroup’s 2013 marketing and advertising expenses²⁷¹

“Our funding falls significantly short of the level we need to fulfill our mission to investors, companies, and the markets . . . [4,200 employees] are not nearly enough to stretch across a landscape that requires us to regulate more than 25,000 market participants, including broker-dealers, investment advisers, mutual funds and exchange-traded funds, municipal advisors, clearing agents, transfer agents, and 18 exchanges.”

- Mary Jo White,
SEC Chair in a speech at an agency conference
(2014)

In addition to lobbying, big banks have increasingly used lawsuits and protracted litigation to weaken Dodd-Frank.

In the five years since Dodd-Frank was enacted, Wall Street and its supporters have filed multiple lawsuits challenging rules implementing the financial reform law. Even when those actions have fallen short of an outright victory, they have succeeded in substantially delaying important reforms and diverting already scarce agency resources away from core mission objectives.

Earlier in 2011, in response to a lawsuit filed by the Business Roundtable and U.S. Chamber of Commerce, a federal appeals court struck down the SEC’s proxy access rule, a measure expressly authorized in Dodd-Frank that would have made it easier for shareholders to nominate company directors. The court ruled that the SEC had essentially failed to conduct an adequate cost-benefit analysis—even though the SEC has no such obligation under the securities laws.²⁷² This ruling emboldened Wall Street, and created a blueprint for use in future cases seeking to invalidate rules implementing financial reform.

In 2011, two of Wall Street’s biggest, richest, and most powerful trade groups, the Securities Industry and Financial Markets Association (SIFMA) and the International Swaps and Derivatives Association (ISDA) filed a lawsuit challenging the CFTC’s position limits rule. The CFTC adopted the rule in October 2011, pursuant to new authority in Dodd-Frank to curb excessive speculation in the commodity markets, which drives up prices on everything from breakfast cereal to gas for our cars. In September 2012, a federal judge ruled that the CFTC had committed a technical legal error in the rulemaking process, and it remanded the position limits rule to the CFTC.²⁷³ Five years after the passage of Dodd-Frank, as a consequence of the legal challenge, a final position limits rule is still not in place.

In December 2013, Wall Street’s biggest lobbying organizations banded together once again to sue the CFTC, this time challenging the agency’s regulation of overseas or “cross-border” swaps transactions. This was a prime Wall Street target, because limiting the regulation of overseas swaps transactions would enable Wall Street’s biggest dealers to evade Dodd-Frank reforms almost entirely. The lawsuit, filed by groups representing Goldman Sachs, JPMorgan Chase, Deutsche Bank AG, and other swap dealers, argued that the agency unlawfully used agency guidance and staff advisories rather than formal commission-approved rules to define the international reach of the new framework governing swaps.

A federal judge finally dismissed the suit in late 2014, saying the CFTC was well within its mandate, but not before a costly, year-long legal battle.²⁷⁴

Wall Street and its supporters have also made attempts to bring down the Volcker Rule, an essential component of Dodd-Frank that restricts U.S. banks from making certain kinds of speculative investments and trading purely for their own profit and not for the benefit of clients or for any socially beneficial purpose.

In December 2013, the American Bankers Association (ABA) filed a lawsuit against the Fed, the FDIC, and the Office of the Comptroller of the Currency over the Volcker Rule, claiming it would cost smaller U.S. banks \$600 million.²⁷⁵ Regulators responded in January 2014 by tweaking the rule to allow banks to retain certain investments if they had been purchased before the rule was finalized. In February 2014, the ABA dropped its lawsuit, saying “Additional concerns can best be addressed without the chilling impediment of pending litigation.”²⁷⁶

Just this year, the insurance giant MetLife, Inc. filed suit against the Financial Stability Oversight Council (FSOC), challenging its designation of MetLife as a systemically significant nonbank financial institution that warrants enhanced prudential supervision by the Federal Reserve Board. A core argument in MetLife’s complaint is that FSOC based its designation decision merely on the **potential** threat to U.S. financial stability that MetLife **could** pose. However, acting in the face of uncertainty and addressing possible—not inevitable—threats to our financial system is precisely what Congress ordered FSOC to do, based on the painful lessons of the financial crisis. In fact, in the lead-up to the crisis, no one foresaw the extraordinary risks that had built up in nonbank financial conglomerates such as AIG and other institutions like money market funds. As FSOC made clear in its court filings,²⁷⁷ MetLife’s arguments are without merit. And as Better Markets demonstrated in its amicus brief,²⁷⁸ if MetLife’s claims are successful, the FSOC’s authority to protect our markets and our economy from another devastating financial crisis will be severely impaired. The case is still pending.²⁷⁹

“If regulators live in fear of a lawsuit alleging they failed to consider sufficiently the costs and benefits of a rule, rulemaking slows or halts and opponents have succeeded.”

- Bart Chilton,
CFTC Commissioner
(2007 – 2014)

XII. CONCLUSION

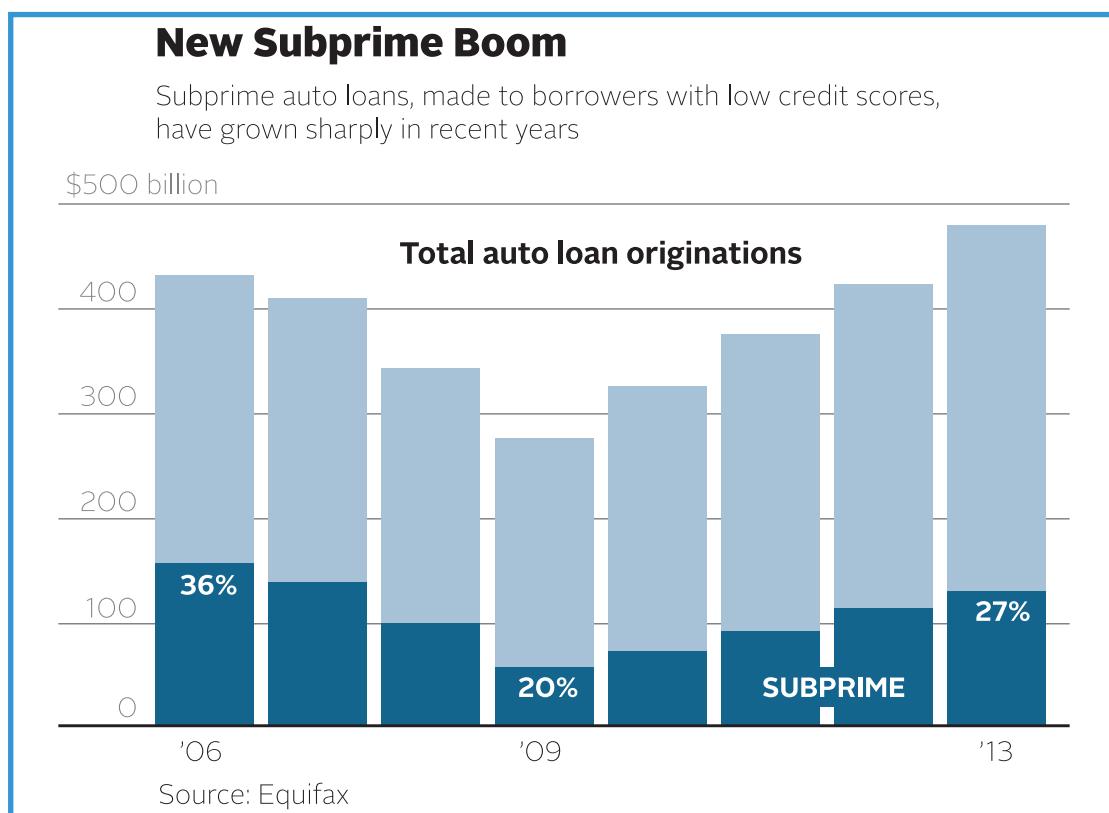
As we pass the five-year anniversary of Dodd-Frank becoming law, it is as important today as ever before that we fully understand the cost of the Wall Street-caused financial crisis. As of July 2015, the crisis has and will cost the American people at least \$20 trillion.

Regardless of which metric you look at—long-term unemployment, number of foreclosures, small business growth, federal R&D spending—there is irrefutable evidence that the financial crisis of 2008 and the subsequent Great Recession have set the U.S. and tens of millions of Americans back like no other economic calamity since the Great Depression.

There is also no denying why this happened: The crisis and Great Recession were the direct result of an unprecedented run of deregulated, unregulated, and un-policed risk-taking on Wall Street with the privatization of gains and the socialization of losses. Put another way, Wall Street got the bonuses and the American people got the bill.

Unfortunately, evidence is emerging that banks are getting back to business as usual, taking on new risks with predictable consequences.

To cite just one example, Wall Street is now generating massive returns by packaging subprime auto loans together. In fact, such securitizations grew 302%, to \$20.2 billion, between 2010 and 2014.²⁸⁰ And the share of auto loans going to borrowers considered sub-prime has risen every year since 2009, with more than one in four going to people with credit scores at or below 640 in 2013.²⁸¹



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The subprime auto loan market certainly isn't anywhere near the size and scale of the housing market, but it's just one sign that Wall Street is aggressively ramping up the risk and once again searching for ways to profit, regardless of the suffering they may ultimately inflict on Americans.

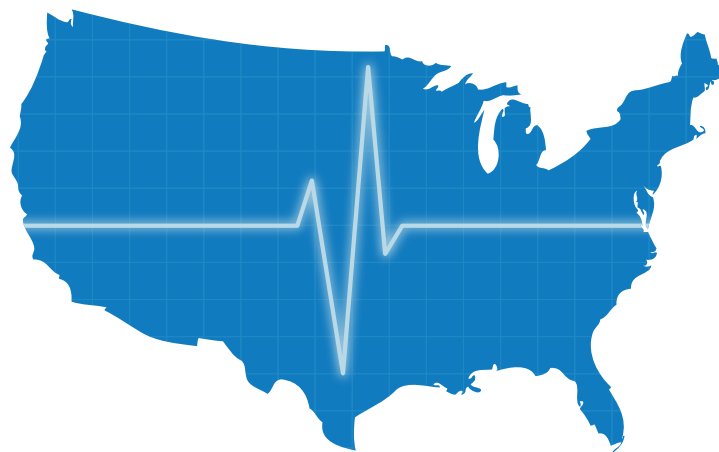
If asked, Wall Street representatives could undoubtedly provide plenty of high-minded justifications for why peddling billions in subprime auto loans is great for the economy and for American families, just as they did when defending the massive bubble in subprime mortgages in the years before they all blew up in the 2008 financial crash.

But if this report has demonstrated anything, it should be that what Wall Street says can't be taken at face value. For years, regulators and legislators gave financial institutions the benefit of the doubt and endorsed the farcical idea that Wall Street's biggest banks could "self-regulate," that they could manage risk, and that concern for their reputations would act as a brake on reckless and illegal conduct. We have seen the consequences of this laissez-faire attitude toward Wall Street regulation:

- The worst financial crash since the Great Crash of 1929
- The worst economy since the Great Depression of the 1930s
- Economic wreckage that continues to inflict damage across America
- Trillions of dollars in losses that America will never get back
- Needless human suffering and, too often, loss of faith in the American dream

Although the Dodd-Frank financial reforms were passed five years ago, the work of creating a safe, sound, and stable financial system as well as more economic security for hardworking Americans and their families is far from over. In fact, it is really just beginning.

At Better Markets, we view the five-year anniversary of Dodd-Frank being signed into law as a reminder that the public and our elected representatives must remain vigilant and committed to the idea that Wall Street can never again be allowed to run roughshod over our economy and threaten the economic security, the standard of living, and the future of America's families.



XIII. COST OF THE CRISIS METHODOLOGY DESCRIPTION

As stated earlier, as of July 2015, **the financial collapse and economic crisis caused by Wall Street has cost and will cost the American people at least \$20 trillion.**

This is a conservative estimate, including only:

- \$7.9 trillion in actual losses of GDP relative to potential GDP as currently estimated;
- \$3.6 trillion in reduced GDP potential, primarily as a function of reduced capital stock and labor hours resulting from effects of the Great Recession; and
- \$9.1 trillion in losses which would have occurred, if not for the extraordinary fiscal, financial market and monetary interventions undertaken by the government early in the crisis.

In deriving these estimates, our approach was based on direct use of credible source documents from CBO, GAO, Federal Reserve Bank of St. Louis's FRED database, and selected academic research.

Actual GDP: Actual GDP is sourced from FRED to current date, and uses expected growth estimates from CBO's 2015 *Budget and Economic Outlook* for later years. Potential GDP, based on 2007 and 2014 estimates, is taken from CBO's 2014 publication *Revisions to Potential Output*; for 2018 an estimate was used based on the preceding 3-year CAGR.

Potential GDP: Two estimates of potential are included. The first is the CBO's estimate of future GDP potential, as estimated by CBO in 2014; this is one baseline against which we measure losses.

Additionally, we use an adjusted version of GDP potential estimate, derived from CBO's earlier 2007 estimate of potential, from which we have removed (only) the impact of what were later determined to be unsustainable pre-2007 growth trends. Specifically, we leave in the effects of what would have been higher levels of capital stock and labor utilization which we believe would have been realized but for the effect of the Great Recession. Our "revised 2007 potential estimate" retains approximately one third of the difference between the 2007 and 2014 estimates.ⁱ We believe this is conservative.ⁱⁱ

Avoided losses: Blinder and Zandi (2010) used the Moody's Model of the U.S. economy to derive an estimate of the losses which would have occurred but for the heroic fiscal, financial market and monetary policy interventions early in the crisis. They provide estimates for 2008-2012, which we use directly, once adjusted to 2014 dollars.

However, while Blinder and Zandi provide estimates only to 2012, we believe that some of the impacts surely continue in future years, both because it isn't plausible that impacts go from almost \$2 trillion to zero immediately, and more importantly, because many of the accommodating monetary and credit market policies continued past 2012.

Fiscal impacts: Ultimately, our estimate of the Blinder and Zandi estimate of fiscal policy impacts past 2012 is limited in scale. Blinder and Zandi show that ARRA was almost three-quarters of the total fiscal policy spending. Since CBO estimated that the impact of ARRA in 2013 would be only .1% ~ .4% of GDP,

we used an intermediate value of .25% of GDP for the impact of ARRA in 2013. In each later year, we let the impact decline, decaying to 50% of the previous year. This quickly trends to zero. For non-ARRA fiscal measures, we first estimated the effect in a simple fashion (one-quarter of the 2012 total fiscal policy impact), and used a similar declining balance approach with a decay rate of 50%. These also trend to zero quickly, and are small in the aggregate.

Monetary and financial market impacts: Given the size of these extraordinary policies, these effects are a larger portion of Blinder and Zandi's overall estimate of avoided losses and continue to be so in our estimation. In addition to their sheer scale in Blinder and Zandi's analysis up through 2012, we believe there are good logical and economic reasons to believe these persist.

While some financial and monetary policy supports have expired including Term Securities Lending, Commercial Paper Funding, Money Market Investor Funding, and new purchases of GSE debt, other aspects of monetary support continue. For example, the Fed's balance sheet remains multiples above its pre-crisis level, FHA's portions of home financings remain above its pre-crisis share, credit conditions as represented by the TED spread, and differences between fixed mortgage rates and 10-year treasuries continue to indicate credit market accommodation. Credit conditions are a key input to Blinder and Zandi's analysis, so we believe the impacts would be substantial after 2012, especially in 2013 and 2014.

To estimate these effects after 2012, we worked from the 2012 financial market and monetary impact estimated by Blinder and Zandi and applied a declining balance approach again. In this case, given the continued accommodative policy in credit markets, we used a 75% carry over for 2013 and 2014, stepping up the decay rate to 50% annually afterward. 2013 and 2014 thus include a monetary policy impact of 75% and 56% of the Blinder and Zandi 2012 estimate, but this drops rapidly thereafter, with 2017 and 2018 at 7% and 3% of Blinder and Zandi's 2012 impact. Subject to the limitations imposed by lack of access to their model, we believe this is reasonable.

Joint effects: Blinder and Zandi note that the total effect of fiscal and monetary policies together is substantially higher than the sum of their effects due to reinforcing effects. These synergies can be very large; for example, in 2011 and 2012, they account for 37% and 42% of Blinder and Zandi's avoided losses. However, we have no direct way to estimate these effects without their model, so we set these to zero. Given that fiscal policy impact tapers off quickly as noted, above, this may also be quite sensible. In any event, it is a conservative approach.

Price levels: Most of the government-sourced data was reported in 2009 dollars. Blinder and Zandi's analysis was reported in 2005 dollars. Where necessary, we adjusted from 2005 or 2009 dollars to 2014 units using the GDP price deflators also available in FRED to date, and used projections of the deflator from CBO's 2015 *Budget and Economic Outlook* for later years.

ⁱ It is important to understand the factors underlying CBO's re-estimate of potential output and its impact on our estimates. Comparing CBO's 2007 and 2014 estimates, a substantial portion of the change in potential GDP was in fact due to the trend in years preceding 2007. CBO's 2014 analysis identified these as an aberration or unsustainable (our terms, but we believe accurate). Of the 7.3% difference in potential 2018 GDP when viewed using the 2007 vs. 2014 projections, CBO identified 4.8% as due to the apparently unsustainable pre-2007 trends.

We agree that this portion (4.8%, 65% of the 7.3% total) should not be considered as "potential," however, we believe that the remaining 2.5% (34% of the impact) should remain part of potential which has been lost specifically due to the effects of the Great Recession, including its effect on capital stock and labor utilization, which would have been higher but for the cumulative effects of the Great Recession. We applied this 34% damping factor to all periods to derive the "adjusted 2007 potential" shown.

ⁱⁱ For example, former Treasury Secretary Larry Summers uses 50% in his analysis, but he also uses a round number of 10% rather than 7.3% for discussion purposes.

ENDNOTES

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- 31 And that many in the media believe and would have you believe. The Wall Street Journal's lead Fed reporter Jon Hilsenrath wrote on June 2, 2015 what can only kindly be described as a tone deaf piece entitled "A Letter to Stingy American Consumers": Hilsenrath, J. Grand Central: A Letter to Stingy American Consumers. The Wall Street Journal. Retrieved from <http://blogs.wsj.com/economics/2015/06/02/grand-central-a-letter-to-stingy-american-consumers/>. It caused an uproar in reader responses attacking him for being elitist and out of touch with the many struggles of America's hard working families trying to find jobs and make ends meet. The blogger ZeroHedge catalogued some here: Durden, T. (2015), A Member Of The Middle Class Responds to Jon Hilsenrath. Retrieved from <http://www.zerohedge.com/news/2015-06-03/member-middle-class-responds-jon-hilsenrath> Taken aback, the readers' thrashing caused Hilsenrath and the Journal to respond in a piece that seems to confirm the readers' original view. Hilsenrath, J. Grand Central: Readers Sound Off About Consumer Spending Sluggishness. The Wall Street Journal. Retrieved from <http://blogs.wsj.com/economics/2015/06/03/grand-central-readers-sound-off-about-consumer-spending-sluggishness/>
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In 2008, the recklessness of Wall Street's biggest banks caused the worst crash since the Great Crash of 1929 and the worst economy since the Great Depression of the 1930s. That crash has cost America tens of trillions of dollars and untold human suffering from coast to coast. It's time to stand up to Wall Street and stand up for Main Street by requiring the too-big-to-fail banks to follow the rules of the road like everyone else.

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