



# The American Worker

Toward a New Consensus



ECONOMIC  
INNOVATION  
GROUP

By Adam Ozimek,  
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American workers are the engine of the most prosperous, diversified, and innovative economy the world has ever known. Yet any attempt to understand the condition of the typical U.S. worker requires one to wade through a tangled thicket of competing claims, catastrophic predictions, and outright fabrications.

Politicians and the pundit class tell a story of working America that is often at odds with what the best economic data and workers themselves tell us to be true. The policy debate is cluttered with imaginary solutions to non-existent problems that bear little connection to the real challenges workers face and how to solve them.

So, what's the truth?

Simply put: The American worker is doing better than at any time on record across a vast array of important measures.

Many will be surprised by that headline, but consider the evidence. The median worker is better paid and better educated than ever before. Workplaces have never been safer. Employers have never offered better or more diverse benefits. The average workweek has shrunk considerably. A record share of families hold a retirement account, while a record share of workers have access to paid sick and family leave. Job opportunities are abundant. Side gigs have become rarer, not ubiquitous. The majority of those who work part time do so out of preference, not necessity. And workers today enjoy longer tenures with their employers than they did in decades past.

One need not rely on economic data alone. Long-running surveys show that Americans today are broadly satisfied with their work at levels comparable to any of the peak periods of the past five decades. Not only that, almost 90 percent—a near-record share—are satisfied with their job security.<sup>1</sup>

Put it all together, and there are mountains of evidence that the American economy works for the overwhelming majority of working people. There is simply no credible case that the typical worker is systematically more precarious, overworked, underpaid, or dissatisfied than they were in some bygone era.

And yet...

Decades of cumulative gains mask a troubling downshift in the pace of progress.

Compared to the earlier period of remarkable postwar growth, progress for the typical worker since 1980 has been disappointing.<sup>2</sup> Average annual growth in compensation from 1950 to 1980 was more than double what it has been since.<sup>3</sup> Likewise, the rate of annual productivity growth was more than 50 percent stronger on average between 1950 and 1980 than it has been over the past four decades.

American workers were hit hard by the one-two punch of the global financial crisis and the unusually tepid recovery that followed. And, while wages have outpaced the cost of living overall, the rapid increase in the cost of housing has taken a bigger bite out of worker pay than is captured by standard economic statistics.<sup>4</sup>

The progress is real and undeniable. So too is the unfulfilled potential. This report is the kickoff to a project that attempts to grapple with reality and lay the foundation for a new consensus about the American worker.

Along the way, we will present new research, guest essays from a range of leading experts, new survey data on worker sentiment, and practical ideas for how policymakers can accelerate progress where it has fallen short.

## About this report

We focus our analysis on the period from 1980 to 2023, which we chose for a few reasons.

- First, going back four decades gives us a meaningful sense of long-running trends, but also the certainty that we have not gone back so far as to be irrelevant to the American worker of now. The vast majority of today's workforce entered the labor market after 1980.
- Second, high-quality data is available for our study window. For example, 1980 is the first year we can compute growth in wages using the Current Population Survey's Outgoing Rotation Group Earnings Data.
- Third, 1980 roughly marks a transition between two economic eras: the stagflation era of the 1970s and the long, subsequent period of relatively low inflation. We wanted to evaluate how things have changed since that turning point.

We also focus our analysis on the median worker—the one smack in the middle of the distribution. We do this to most closely approximate the typical experience of workers in the economy today and compare that to the typical worker of the past. The tradeoff is that important distributional questions—for example, ones related to the experience of workers at the very top or bottom—are by necessity outside the frame of this effort.





## Part 1: The Characteristics of Workers

Who are we talking about when we reference American workers? The answer has changed in significant ways over the past four decades.

First, the scale of the U.S. labor force has never been larger. Since 1980, it has expanded by 60 million to reach nearly 170 million workers in total<sup>5</sup>—equivalent to adding the entire population of Italy.

The typical worker of prime working age—that’s a worker between the ages of 25 through 54—has never been better educated, with 14 years of education on average.

Since 1980, the share of prime-age workers with at least a bachelor’s degree has more than doubled, to 34 percent today. And while 71 percent of prime-age workers had a high school diploma or less in 1980, the share now is just 41 percent.<sup>6</sup>

A rising share of foreign-born workers is helping propel the educational attainment of the broader U.S. workforce. The foreign-born share of the labor force has risen from 7.1 percent in 1980 to 18.3 percent today. Foreign-born workers are better educated on average than native-born workers, and this is especially true of the most recent cohorts of immigrants. More than 45 percent of those who have arrived since 2010 have a bachelor’s degree or higher, compared to roughly 33 percent of immigrants that arrived in the 1990s.<sup>7</sup>

The workforce is also getting older.

The median worker today is 41—seven years older than in 1980.<sup>8</sup> But even that understates how much the workforce has aged. Altogether, the senior share of the workforce has more than doubled over the past four decades, and is nearly 7 percent today.<sup>9</sup>

One in three Americans aged 65–69 is in the labor force now. Four decades ago, only one in five was.<sup>10</sup>

The composition of the workforce has become dramatically more diverse and gender balanced over the past four decades. Reflecting a similar change in the overall population, White workers have gone from 81 percent of the workforce in 1980 to 59 percent today. The shares of Black, Asian, and Hispanic workers have all grown, with Hispanic workers rising to 19 percent—the second largest of any group.<sup>11</sup>

Meanwhile, women’s share of the workforce has continued its steady ascent, rising from 42.5 percent in 1980 to 46.8 percent today.<sup>12</sup>

What’s changed	1980	2023
Size of labor force	106,940,000	167,116,000
% of labor force women	42.5%	46.8%
% of labor force older than 65	2.9%	6.8%
% of labor force foreign born	7.1%	18.3%
% of prime-age labor force bachelors or higher	13.7%	33.6%

While these trends have had a large cumulative impact over time, the pace of some changes has slowed noticeably compared to previous decades.

For example, the 4.3 percentage point increase in the female share of the workforce since 1980 is far smaller than the 12.9 percentage point increase over the prior three decades.<sup>13</sup>

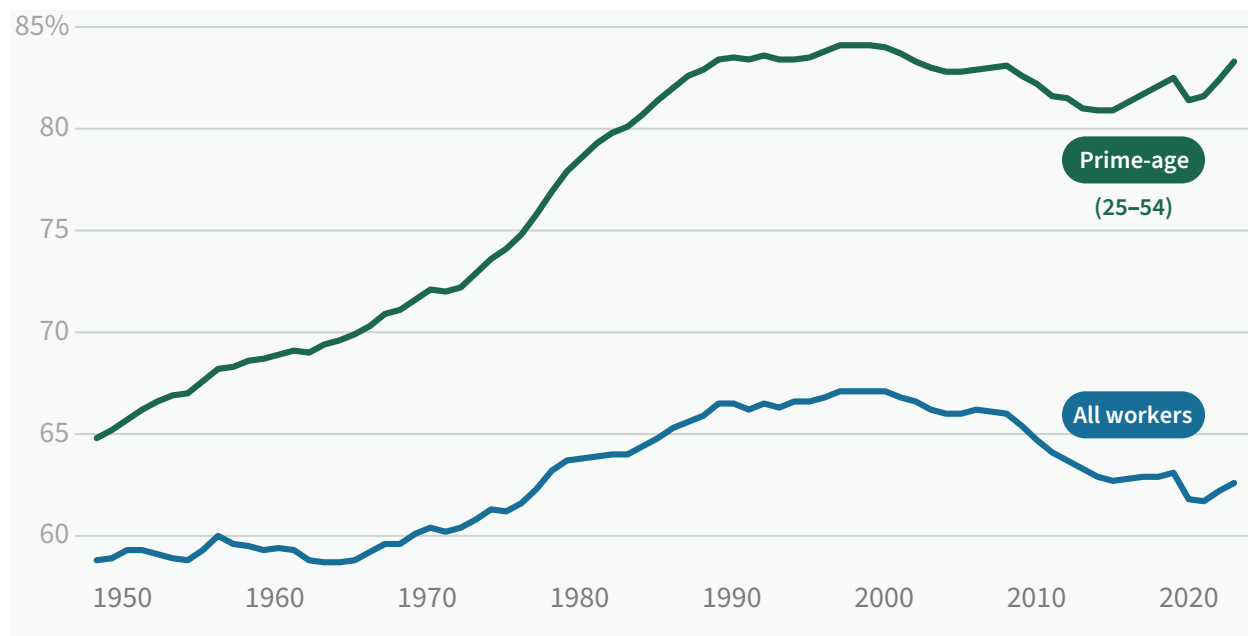
Likewise, education levels are rising much more slowly than they did in the past. Since 1980, the education level of the workforce has gone up by 0.4 years of schooling per decade, compared to 1 year of schooling per decade from 1950–1980.<sup>14</sup>

Even the Italy-sized expansion in the U.S. workforce represents a stark slowdown compared to the past. From the late 1950s until 1980, the labor force generally grew between 1 to 2.5 percent annually. Since the Great Recession, it has averaged closer to just 0.5 percent.

Rates of participation in the labor force have changed in important ways as well.

The single most important measure relates to the prime-age population, workers aged 25 to 54.<sup>15</sup> This group's participation rate has risen by nearly 5 percentage points since 1980 and is now at 83.3 percent, close to its historical peak.<sup>16</sup> But beneath that trend, prime-age men and women are on different trajectories.

## Civilian labor force participation rate



Source: Current Population Survey

While prime-age men remain heavily engaged in the labor market, their participation rate has been on a slow and steady decline going back to the postwar period. By 1980, their labor force participation rate stood at 94 percent. Today, it stands at roughly 89 percent.

Women, on the other hand, have seen their prime-age participation rate jump from 64 to 78 percent over the same period. Driving this growth is a sharp increase specifically among married women, who have seen a 16 percentage point jump since 1980, while the rate for unmarried women has barely budged.

Declining participation for prime-age men and rising participation among women holds true across racial and ethnic groups, with White men experiencing the largest decline (-5.2 percent) and Hispanic women enjoying the largest increase (17.9 percent) since 1980.

Even as the prime-age participation rate has increased, the overall share of the population in the labor force has declined from 63.8 percent in 1980 to 62.6 percent now. Many observers seize on this as evidence of a growing sickness in the economy and labor market, but it is primarily explained by the rapid aging of the U.S. population.<sup>17</sup>





## Part 2: The Characteristics of Work

Just as the characteristics of workers have changed, so too have the characteristics of work itself. But the direction of these changes often flies in the face of conventional wisdom.

Consider a common narrative one hears about today's economy. It goes something like this: Workers are experiencing an age of unprecedented disruption. The rise of e-commerce and automation, increasing foreign competition, and the proliferation of gig platforms have upended the typical employer-employee relationship and the stability that workers used to enjoy. As a result, more workers are taking on side gigs or cobbling together multiple part-time jobs just to get by. Not only that, but even good jobs are more precarious than in previous eras. Back when manufacturing ruled the U.S. economy, workers could expect a job for life. Today, they are forced to switch jobs more often than ever before.

Sound familiar? Let's look at how closely these claims track with reality, starting with the prevalence of multiple jobholders.

Not only has it long been uncommon for workers to hold more than one job at once, Americans today are even less likely to have multiple jobs than they were in the past. Multiple jobholders have trended down from 5.9 percent of workers in 1994 to just 5.0 percent today.<sup>18</sup> What's more, the rate tends to cyclically *fall* during recessionary periods.<sup>19</sup> This suggests that the phenomenon represents an opportunity that arises from strong labor markets with plenty of jobs rather than a necessity for surviving poor economic times.

If not through multiple jobs, perhaps workers are responding to increased disruption or precarity by working longer hours? Just the opposite.

In the early 1960s, production and nonsupervisory employees—workers who do not manage other workers—averaged close to a 40-hour workweek. By 1980, that had fallen to just over 35 hours per week. Today, it's under 34 hours per week—close to a historical low during non-recessionary periods.<sup>20</sup>

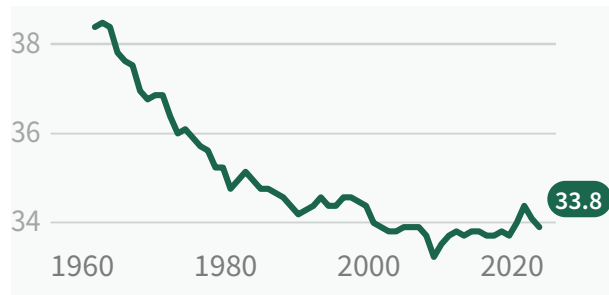
What about part-time work? Are Americans being forced to settle for part-time jobs when they would rather have the security of full-time employment? Here again, the answer is clearly no.

In total, roughly 19.3 percent of the labor force works part-time, lower than in 1980. Only 2.6 percent of the labor force does so out of economic necessity—close to a historical low. The vast majority of those who work part-time do so by choice and the vast majority of those who want full-time work can find it.<sup>21</sup>

We also find zero evidence for the idea that workers are switching jobs more frequently than before. The share of workers changing jobs in a given year has fallen significantly, from 16.9 percent in 1980 to 11.1 percent today.<sup>22</sup> Over the same period, the median length of time someone works for a given employer has gone up from 3.2 years to 4.1 years.<sup>23</sup> In fact, there is good reason to believe that the low levels of job turnover are a cause for concern.<sup>24</sup> Job switching tends to meaningfully boost a worker's lifetime earnings, and it also helps knowledge and productivity gains to spread throughout the economy.

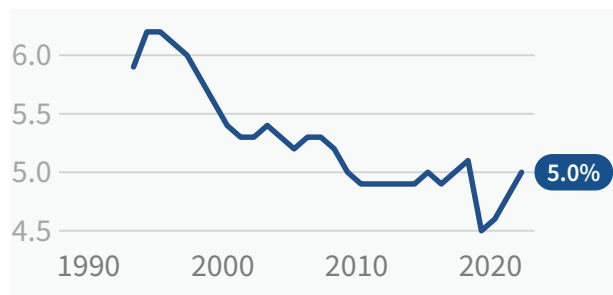


### Average weekly hours of production and nonsupervisory employees, total private, hours, annual, seasonally adjusted



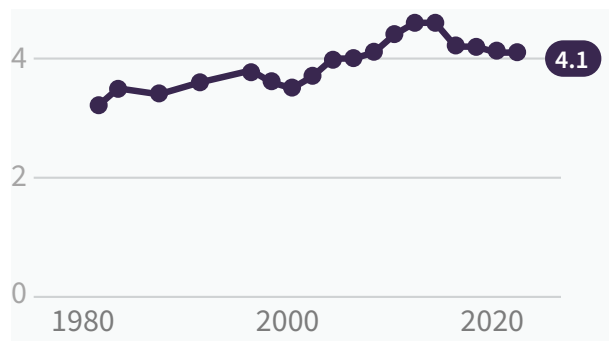
Source: Bureau of Labor Statistics Current Employment Statistics

### Multiple jobholders as a percent of employed



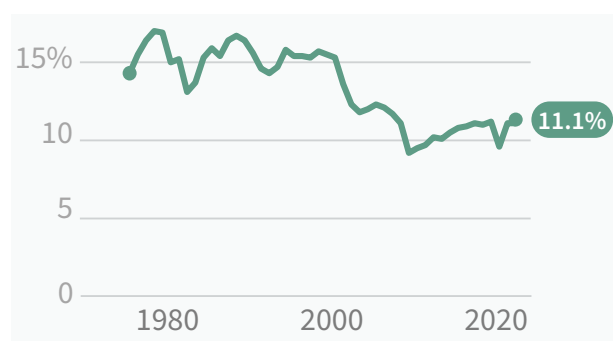
Source: Current Population Survey

### Median job tenure with current employer (years)



Source: Bureau of Labor Statistics

### Share of employed workers who changed jobs in the prior year



Source: Current Population Survey

## Poverty and the American worker

Being employed is a strong and reliable safeguard against poverty in the United States. The share of American workers in poverty is 4.9 percent, near an all-time low—and that is *before* taking into account the effects of the government’s poverty-fighting benefits programs.<sup>25</sup>

Worker poverty climbs during recessions and falls during economic expansions, as expected. Since 1980, however, it has never climbed above 7.1 percent. For workers who manage to stay employed even through the worst times in the economic cycle, poverty rates stay low.

Many workers, of course, either lose their jobs or entirely drop out of the labor market because of recessions. Their loss places them at greater risk of falling into poverty, which further shows the importance of work itself as a tool for reducing economic insecurity—and of the need for a labor market that makes it possible for anyone who wants a job to actually get one.



## More jobs, more benefits, fewer bone breaks

Now let's look at a few areas where changes have been more pronounced, starting with workplace benefits and safety.

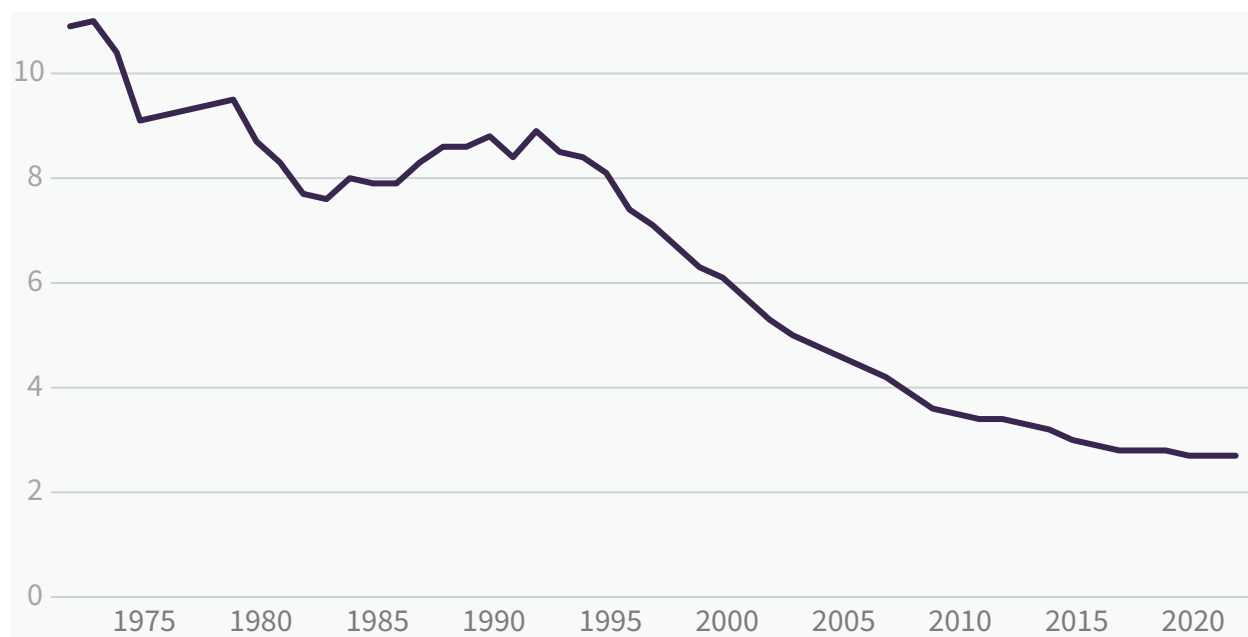
Today's American worker enjoys a wider array of benefits, more vacation time, more flexibility, and a safer work environment than ever before.

Nearly four out of five full-time workers have access to paid sick leave, representing the highest share on record. More than one in four workers has access to paid family leave—also a record high.<sup>27</sup> Both paid sick leave and paid family leave have surged in recent years. So too have paid vacation days. The typical worker now has roughly two additional paid vacation days per year compared to 20 years ago.<sup>28</sup>

And all the while workplaces have gotten much safer. The rate of on-the-job injuries and illnesses has plummeted to less than a third of where it stood in 1980.<sup>29</sup>

### Incidence rate of nonfatal injuries and illnesses at work

Cases per 100 full-time equivalent workers



Source: Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses

Employment itself is more abundant. In January of 1980, the nation's unemployment rate stood at 6.3 percent. Soon after, back-to-back recessions would drive it close to 11 percent, and from there it would take until nearly the end of the decade for the rate to fall to 5 percent. What's more, from 1980 until 1997, unemployment never dipped below 5 percent. Today, 4 percent or less is emerging as the new normal.<sup>30</sup>

Two other noteworthy changes to working life are the declining reach of organized labor and the declining relevance of the federal minimum wage. Union membership has fallen by half since the early 1980s, and only one in 10 workers belongs to a union today. A mere 6 percent of private sector workers are unionized, compared to roughly one-third of public sector workers.<sup>31</sup>

Over the same period, the share of workers making at or below the federal minimum wage has dropped from 15 percent to just 1 percent. This is partly because wages throughout the economy have risen more than the minimum wage, and partly because so many states and localities have raised their own minimum wages above the federal minimum.<sup>32</sup>

Another change is the untethering of work from the workplace. Data from the U.S. Census Bureau suggests that remote work has tripled compared to before the Covid-19 pandemic, and is nearly seven times higher than in 1980.<sup>33</sup> A separate, more detailed snapshot from the Bureau of Labor Statistics tells us that roughly 10 percent of workers are fully remote and another 11 percent are hybrid remote.<sup>34</sup>

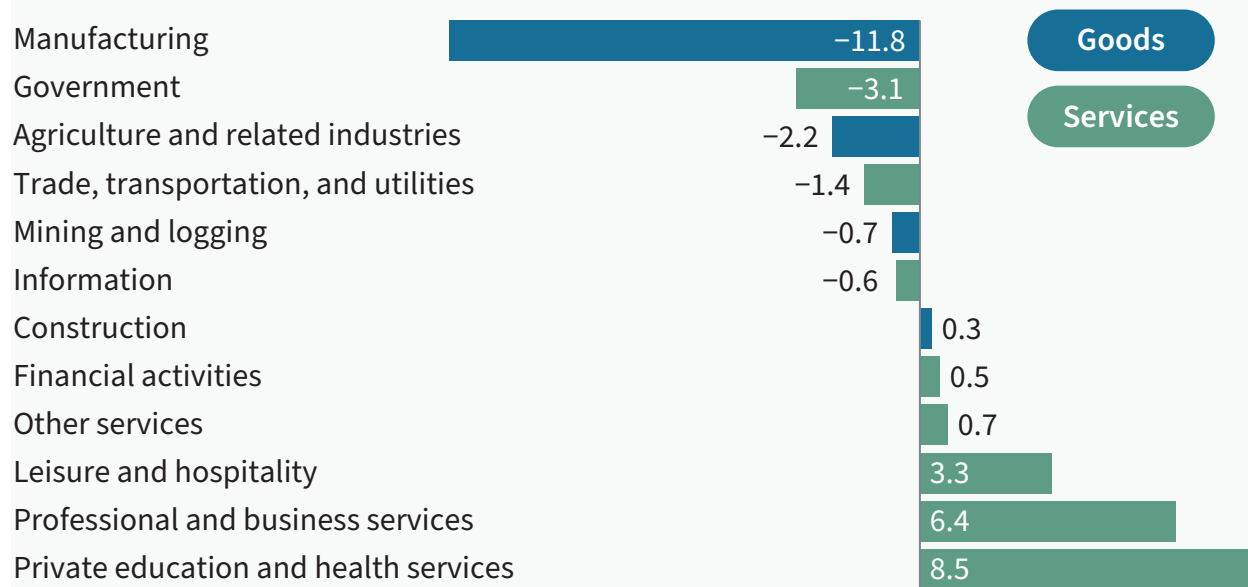
### *Productivity, manufacturing, and the rise of services*

Yet another seismic shift has been the rising dominance of the services sector and the corresponding changes to the industry composition of the labor market.

Even as far back as 1950, a majority of U.S. workers were employed in the services sector, but the share has been increasing ever since.<sup>35</sup> From 1950 to 1980, the continued shift towards services was mainly driven by a steep decline of agricultural employment. Since 1980, it has been driven by the contracting share of manufacturing employment, which has fallen from 20 percent of workers to merely 8 percent today.<sup>36</sup>

### **Change in employment share by industry**

From 1980 to 2023 (Percentage points)



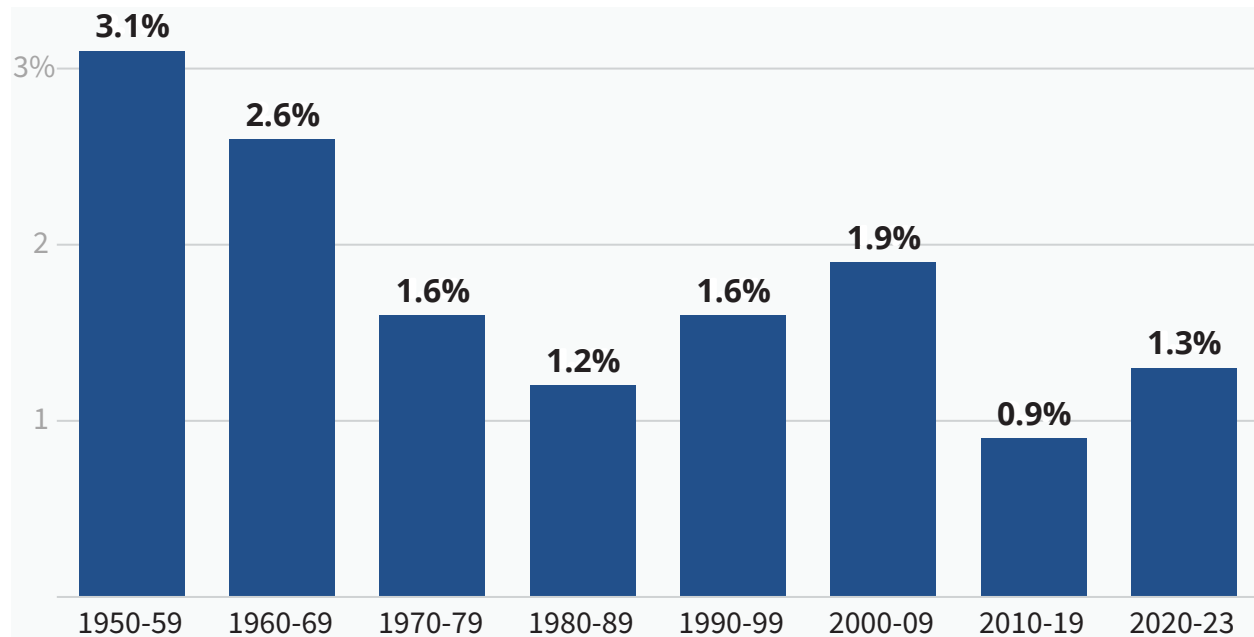
Source: Bureau of Labor Statistics Current Employment Statistics

As manufacturing employment declined, the services sector expanded to the point where it now accounts for more than five out of every six U.S. jobs. Two service industries in particular—health and education (doctors, teachers, nurses) and professional business services (lawyers, accountants, architects)—have doubled their combined share of jobs since 1980 and now employ more than 30 percent of all workers.<sup>37</sup>

How much more output are we getting today from the same input of an hour of labor? The answer ultimately provides a constraint on how much workers will earn. (As workers increase how much they get done in a given hour, that hour of work becomes more valuable to their employers.) The data clearly shows that worker productivity is higher than ever, but it is increasing much more slowly than it once did. This slowdown is broad-based across industries and sectors.<sup>38</sup>

## Average productivity growth by decade

Net domestic product per hour of work, average annual growth rate



Source: Bureau of Labor Statistics Total Economy Productivity Growth

## Surveys of workers show near-record job satisfaction and security

Despite the advent of radically different ways of working, communicating, and consuming, many key aspects of the American worker's experience have barely budged since the turn of the 21st century, or have shifted in ways that are counterintuitive to many observers. The vast majority of us still work a single job. We switch jobs less frequently and work fewer hours. We're self-employed at roughly the same rate. We enjoy better benefits and a safer work environment. Each of these trends is supported by objective data.

But how do workers actually *feel* about their jobs and job security today compared to workers in previous periods? After all, many parts of working life are difficult to measure, and economic trends alone can't tell us whether the economy is meeting the expectations of today's workers.

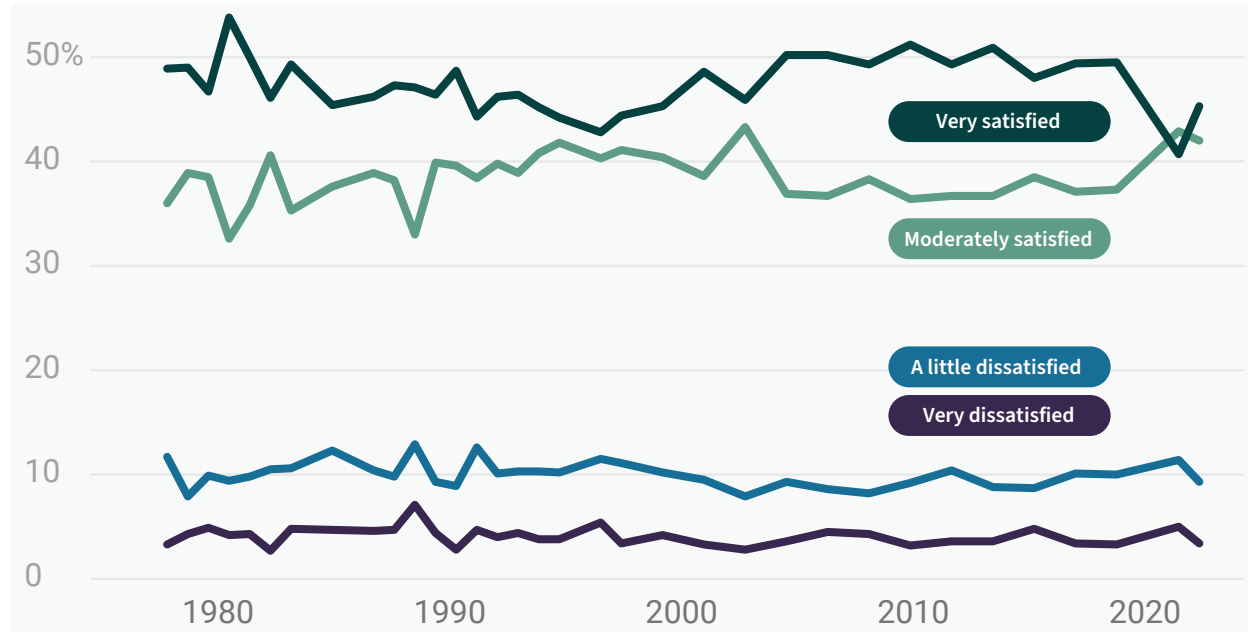
Gallup and the General Social Survey (GSS) have each produced credible, long-running surveys of worker satisfaction. Decade after decade, both surveys have found that the overwhelming majority of U.S. workers consistently report being very or moderately satisfied with their jobs.

Workers who are either completely or somewhat satisfied with their jobs outnumber those who are not by more than 10 to one in the Gallup survey.<sup>39</sup> Fully half of U.S. workers report being *completely* satisfied, compared to just over one in three when the survey began in 1993. At no point in the survey's three-decade history has the share of completely dissatisfied workers been larger than 5 percent.

For its part, the GSS finds 87 percent of today’s respondents are very or moderately satisfied—four percentage points higher than in 1980—while 13 percent are a little or very dissatisfied.

## Work satisfaction in the General Social Survey

“On the whole, how satisfied are you with the work you do...?”



Source: The General Social Survey, NORC at the University of Chicago

What is perhaps most remarkable here is the consistency. Throughout the entire five-decade history of the GSS, through periods of deep recession and surging economic expansion, the share of satisfied workers has never been lower than 80 percent or higher than 90 percent.

Lest one suspect these two surveys are merely outliers, and because their findings are so at odds with conventional appraisals of working Americans, allow us to point to one more for good measure. The Conference Board’s multi-decade survey of U.S. workers recently found that job satisfaction has improved for *thirteen consecutive years*, resulting in the highest levels recorded since the survey’s inception in 1987.<sup>40</sup>

Now, we suppose it’s possible that workers are satisfied with their jobs today but anxious about losing them tomorrow, whether to automation, foreign competition, or some other cause. Here again, workers are telling us a very different story.

In the early 1990s, 79 percent of workers reported feeling completely or somewhat satisfied with their job security, according to Gallup. By 2023, the share had risen to 88 percent, while the share of those completely dissatisfied dropped by half. But this only tells part of the story. The *intensity* of worker



satisfaction rose dramatically, such that a whopping 63 percent now report being *completely* satisfied with their job security—a 17 percentage point jump compared to three decades earlier.<sup>41</sup>

None of this is to suggest that life is better for all workers everywhere. But if the U.S. economy is failing in some fundamental way, workers themselves have yet to find out.





## Part 3: The Rewards of Work

Thus far we have examined how the characteristics of work and workers have evolved over time and found the story to be largely one of progress and satisfaction. But what about the most important measure: wages?

Hourly wage growth is perhaps the most common way of tracking progress for workers over time, as it focuses on the direct and simple question of how much someone earns for an hour of labor.

Measured in these terms, the typical (median) U.S. worker is substantially better off than ever before.

From 1980 to 2023, hourly wages for the median worker grew by 35.9 percent after accounting for inflation.<sup>42</sup> Weekly wages tell a similar story.

Progress becomes even more impressive when we expand the scope to include wages plus benefits, with weekly compensation growth of roughly 45 percent for the typical worker.<sup>43</sup>

% change from 1980 to 2023 (median)	Total	Men	Women
Hourly wage	35.9%	15.6%	59.9%
Weekly wage	41.7%	16.6%	64.1%
Hourly compensation	38.7%	18.0%	63.2%
Weekly compensation	44.7%	19.1%	67.6%
Worker's annual family income	45.5%	43.4%	48.4%

### *Wage deceleration*

So far, so good. But how do the past four decades compare to the previous era?

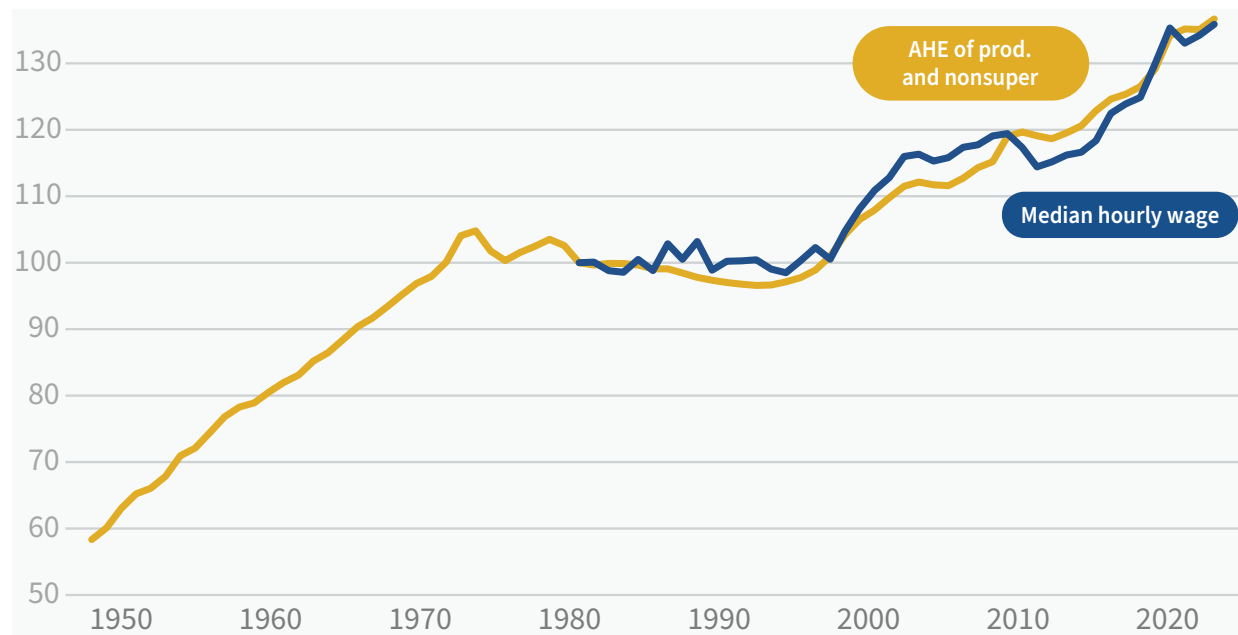
Since data for median hourly wages are not available prior to 1979, we instead looked at average hourly earnings (AHE) of production and nonsupervisory workers as a useful proxy, since these two series tell largely the same story over the long run.<sup>44</sup>

From 1950 to 1979, cumulative AHE grew by 57.3 percent for an annualized rate of 1.6 percent. This dwarfs the 1980 to 2023 period, during which AHE grew by an annualized rate of only 0.7 percent, for a total increase of 36.7 percent.



## Real average hourly earnings of production and nonsupervisory employees and real median wages

Indexed to 1980 = 100



Source: Bureau of Labor Statistics Current Employment Statistics and the Current Population Survey - Merged Outgoing Rotation Group Earnings Data

### *Wage stagnation is long over and most workers missed it*

The period of meaningful-but-lackluster wage growth since 1980 is actually better understood as two distinct periods that featured sharply differing outcomes for the typical worker.

Indeed, if we were writing in 1993, the focus of this report would be a prolonged period of wage stagnation instead of decades of substantial progress. That is because from 1980 to 1993, the median worker's wages actually *shrank* by 1 percent in inflation adjusted terms.<sup>45</sup>

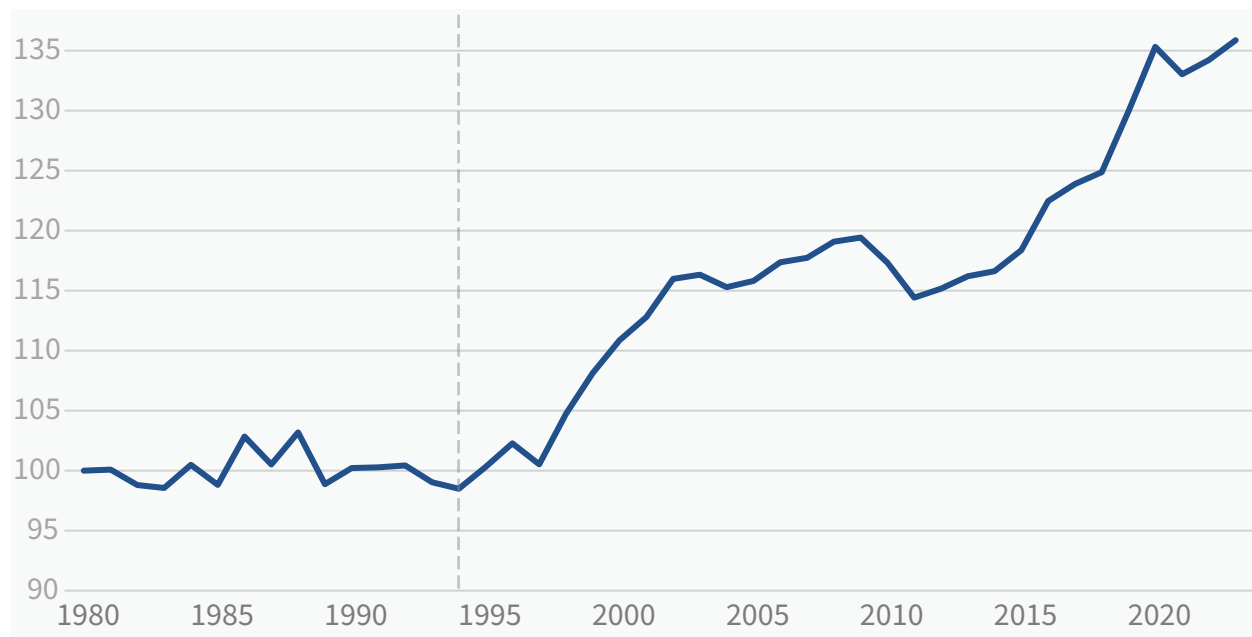
Then began a wage boom. From 1994 to 2023, the median worker's wages surged by 38 percent.

Today's median worker, age 41, entered the labor market well after the era of stagnation had ended. In fact, we estimate that more than *two-thirds* of today's workers entered the labor force after 1993.<sup>46</sup> The overall story since then has been one of solid wage growth—and the story remains true in spite of the severe setback caused by the Great Recession, which eroded what would have been much larger gains for the typical worker.

It is also worth considering major economic events and trends that occurred after 1993. The subsequent period of strong wage growth coincided with the North American Free Trade Agreement taking effect, China's accession to the World Trade Organization, burgeoning trade deficits, the loss of millions of manufacturing jobs, and a surge in immigration. Which is to say, none of these factors could be responsible for the extended period of wage stagnation that preceded them.

## Real median wages 1980 to 2023

Indexed to 1980 = 100



Source: Bureau of Labor Statistics Current Employment Statistics and the Current Population Survey - Merged Outgoing Rotation Group Earnings Data

### *Of men and households*

The difference in wage growth between men and women is stark.<sup>47</sup>

Thanks to a 59.9 percent increase in real hourly wage since 1980, women have continued to enjoy the kind of boom that all workers experienced in the decades immediately following the Second World War.

Meanwhile, men's wages have increased by only 15.6 percent.

Even with the explosive growth in women's hourly wages, however, men continue to out-earn them \$25.00 to \$20.99 per hour. In fact, women's wages in 2023 still lag what men were earning *back in 1980* after accounting for inflation.

The weakness of men's wage growth is legitimate cause for concern, especially when paired with declining prime-age participation rates. Here again, however, breaking out men and women's wages since 1980 into two distinct periods tells a more useful story.

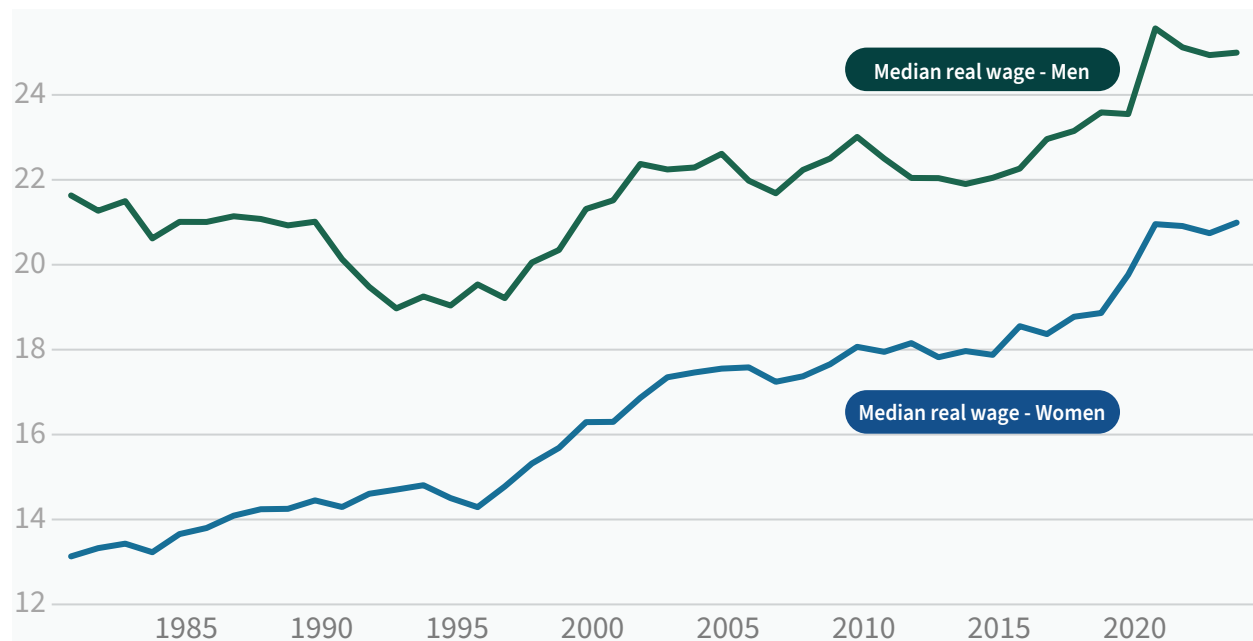
For the median worker, the 1980 through 1993 period was a lost era of real wage growth, which would be bad enough. But for men in particular, it was even worse—a period of significant decline. Their real hourly wages shrank by 11 percent, while women saw a 12.8 percent gain.

From 1994 to 2023, men's wages shot up 31.3 percent—almost perfectly reversing the previous rate of decline from -0.87 percent into positive annualized growth of 0.9 percent. In the meantime, the male-female gap in cumulative hourly wage gains shrank from 23.8 percentage points (1980-1993) to 13.4 (1994-2023).<sup>48</sup>



## Trends in the Real Hourly Wage for Men and Women

2023 dollars



Source: Current Population Survey - Merged Outgoing Rotation Group Earnings Data

What is the bottom line?

First, *men are unambiguously better off* than they were in past decades. Their median wages are just below the highest level on record and are trending higher.

Second, male real wage growth has decelerated relative to peak periods of the 20th century. Looking at the full period since 1980, male wages have seen especially lackluster progress.

Third, the period of wage stagnation that drives a large volume of commentary about the condition of male workers ended long ago and doesn't actually characterize the experience of *today's* male workers.

Men have seen three decades of substantial inflation-adjusted wage gains. And more than two-thirds of them entered the scene after 1993, meaning they have no experience whatsoever as a worker in the bad old days of male wage stagnation.

What explains the dismal period of male wages? The truth is that nobody really knows.

Some constraints were likely holding back faster wage growth for everyone, both men and women. Throughout the 1980s, the Federal Reserve sought to bring down inflation from the calamitous peaks it reached in the prior decade. The resulting high interest rates weakened the labor market as the cost of eradicating the inflationary threat.<sup>49</sup> Productivity growth between 1980 and 1993 was also anemic and did not start to recover until the information technology boom of the second half of the 1990s.<sup>50</sup>

As for what caused the downshift specifically in long-run *male* wage gains, common theories include the broader economic transition from goods to services and the corresponding decline in manufacturing jobs, which were dominated by men. Others point to the inexorable shift away from the "breadwinner norm" as

women take on an increasingly large and valuable share of the workforce.<sup>51</sup> Still others point to a decline in unionization rates. All of these factors may be in play.

Another possible factor: As women’s labor participation and earnings power have increased, men have faced less pressure to be the sole provider. Instead, they have gained greater flexibility in choosing the type of work arrangements that meet economic and quality-of-life goals.

And that brings us to the change in the *family* incomes of workers over time. Simply looking at the incomes of male and female workers separately gives an incomplete picture of how their lives have improved. Zooming out to family income allows us to account for the interplay between male and female income gains.

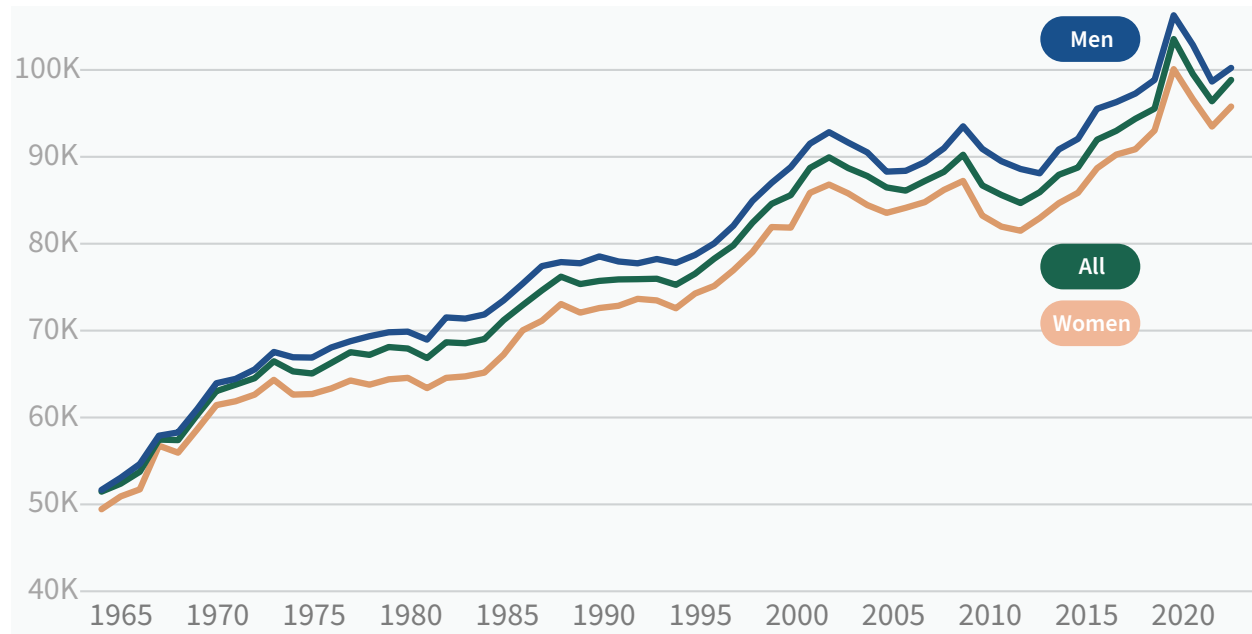
And here, the story improves considerably. The family incomes of employed workers have climbed by 46 percent since 1980.<sup>52</sup>

Both men and women have shared in these gains. If we focus on the median family income of male workers—that is, a family in which at least one man works, regardless of whether anyone else works—it has risen 43 percent since 1980. For female workers, median family income is up 48 percent.

This is a much narrower difference than the one shown by the growth of male versus female wages in isolation—and yet again confirms the substantial improvement in the living standards of typical working Americans.

## Trends in real median family income among workers

2023 dollars



Source: The Current Population Survey’s Annual Social and Economic Supplement

## Methodological debate

There is a methodological dispute at the heart of the question of how much progress the typical worker has made over time—one that accounts for often wildly differing claims about wage growth, or lack thereof.

We briefly set forth the contours of the debate below. But if you're the type of reader who would enjoy a deeper dive into this topic, please see the Appendix, where we show our work.

When determining how much wages have grown over time, economists need to adjust for inflation, obviously. (Higher paychecks by themselves don't matter. What matters is how much more stuff workers can buy with their higher paychecks.) That's what it means to calculate real wage growth.

The dispute emerges because there are multiple different measures of inflation. Disagreement between economists about which measure of inflation is best translates into disagreement about how much real wages have grown. But...

The issue is actually far more settled than the punditry would suggest.

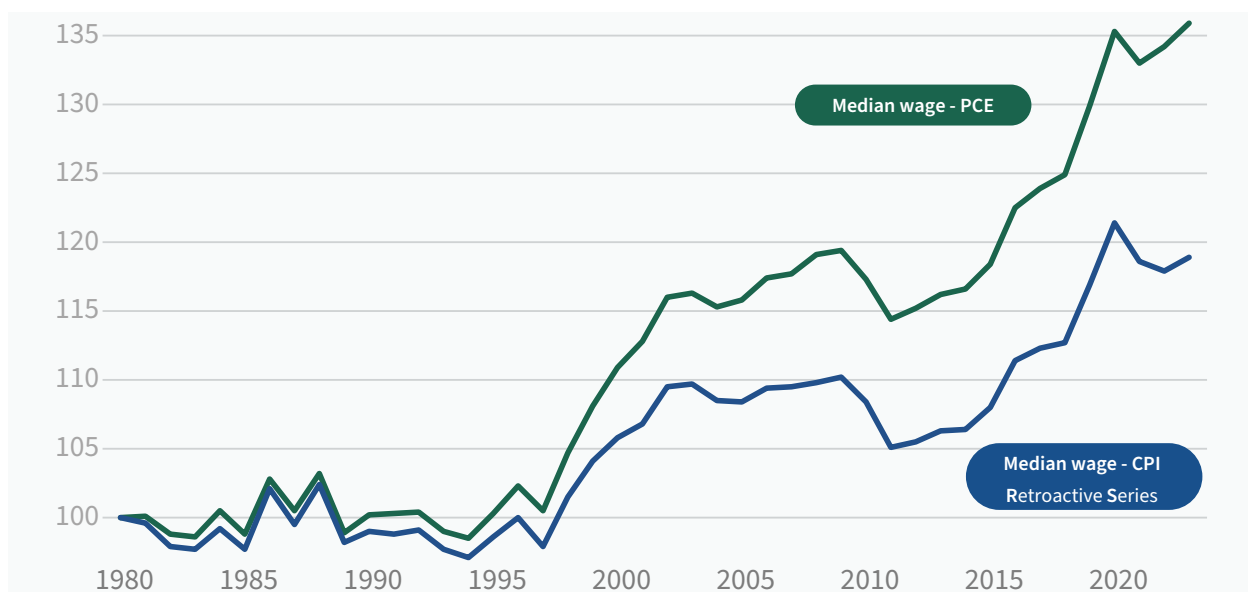
For calculating real wage growth over long periods of time, only two measures of inflation are actually credible—and both measures show solid progress for workers over the past few decades. The only difference is *how much progress*.

The first measure is the Personal Consumption Expenditures Price Index (PCE). This is the measure that we conclude offers the best reflection of how prices change in the real world, and therefore the one we use throughout this report. It shows that real wages have grown by 36 percent since 1980.

The second measure is the Consumer Price Index Retroactive Series (CPI-U-RS), which shows that real wages have grown by 19 percent during that same period. Less progress, but still progress. And even the economists who still use this measure acknowledge that it underestimates that progress.<sup>53</sup>

## Alternative deflators and median wages

Indexed to 1980 = 100



Source: Bureau of Labor Statistics and Bureau of Economic Analysis

So where does the idea that there has been long-term stagnation in worker's wages come from? The answer is that some economists and commentators have chosen to use a third measure of inflation in their calculations: the Consumer Price Index for All Urban Consumers (CPI-U). It leads them to conclude that there has been no wage growth at all *for half a century*.

But this measure is entirely inappropriate. Outdated and superseded by new measures, it fails to include many of the corrections to historical data that the Bureau of Labor Statistics has made to its inflation measurement through the years.

Lingering use of the CPI-U in some corners of the economics commentariat is a big problem. The stagnation portrait it depicts is not just wrong—it also represents a fundamentally flawed basis on which to make policy.

If the median worker truly hasn't seen any meaningful wage gains over the past 50 years, then the U.S. economy has utterly failed and policymakers should replace it with a radically new model. But the evidence supports a different scenario—one that shows real wages have grown for the typical worker, if not by enough. A different set of policy solutions is needed.





## Part 4: Toward a New Consensus

A new consensus on the American worker must begin with the recognition that the typical worker is doing better than ever.

This is self-evidently important. Workers make up roughly half of the U.S. population, and the rest depends on them. A world of difference separates an economy that is working well, but not up to potential, from one that is fundamentally failing the typical worker, as too many have claimed. There is ample evidence for the former. There is zero for the latter.

But should we be satisfied with the current pace of progress? On this, we believe the consensus should be a resounding *absolutely not*—for three reasons.

First, because it is clear the economy has done better in the past at delivering gains to workers. Set aside any empirical considerations: We simply shouldn't accept the idea that rapid progress is a thing of the past.

Second, because U.S. productivity growth has decelerated, and median wages have consistently lagged behind productivity for decades.

And third, because the thing that ties the first two reasons together is that policy choices have failed the American worker in profoundly important ways.

What can policymakers actually do to accelerate progress for the American worker?

While the full range of policy prescriptions will always be up for debate, we believe there are three core priorities that can form the basis of a new consensus agenda: faster and more broadly distributed productivity growth, persistently tight labor markets, and housing abundance.

Let's look at each in turn.

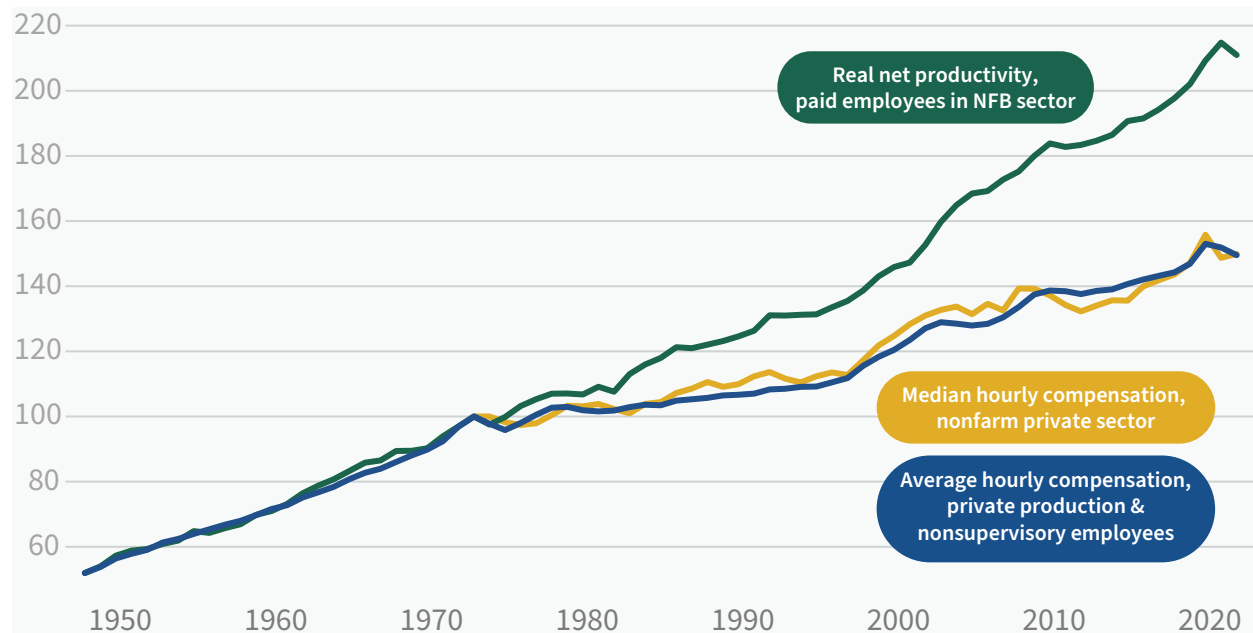
**Faster and broadly distributed productivity growth.** Productivity gains are crucial to boosting wages, and yet the median worker's wages have grown much more slowly than productivity.<sup>54</sup> Some may look at this and conclude that productivity has somehow become less relevant to wages. They are wrong.

Instead, the gap suggests that productivity growth itself, in addition to being too slow, is not being broadly distributed throughout industries and the labor market. We need to get better at spreading the knowledge and productivity that is currently sequestered in a handful of superstar firms and their workers.<sup>55</sup>



## Growth in net productivity and median hourly compensation, paid employees in the nonfarm business sector, 1948-2022

Indexed to 1973 = 100



Data comes from Scott Winship's analysis, "Understanding Trends in Worker Pay over the Past 50 Years"

Source: US Bureau of Economic Analysis National Income and Product Accounts; US Bureau of Labor Statistics Current Employment Statistics National Employment, Hours, and Earnings; and Winship's analysis of Current Population Survey microdata.

An agenda that boosts aggregate productivity is necessary but not sufficient. We must push out the frontier of technology and innovation *and* help more firms and workers get to that leading edge. And to do this, we must remove the roadblocks preventing the diffusion of knowledge and innovation.

One of the best ways is to remove barriers to worker mobility.

Labor mobility—the ability of workers to move to a different job, employer, or industry—is an essential mechanism by which workers achieve wage gains, and by which knowledge and productivity spread through the economy. A labor market that is more fluid will help increase productivity growth over time—and help productivity to spread across firms and sectors.

There is a clear and urgent role for policy here. Noncompete agreements and restrictive occupational licensing rules are major roadblocks to labor mobility. Removing them would help to move knowledge and innovation between firms and prevent large incumbents from squashing entrepreneurship and competition.

Another related way to close the productivity-wage gap is through boosting the startup rate.

The U.S. startup rate has generally been trending downward for decades, though it has seen a welcome resurgence since the pandemic.<sup>56</sup> Declining startup rates are problematic because new firms are a key driver of productivity and are the primary source of net new jobs throughout the economy. Competition from newcomers is also critical to preventing all the productivity and gains from being hoarded by a handful of dominant incumbent firms.

Workers depend on the benefits that new firms disproportionately deliver. Policymakers should be more attuned to the policy and regulatory barriers that get in the way.<sup>57</sup> They should also be doing more to ensure that American entrepreneurship is thriving across a diverse range of places, and not just in the highest performing metro areas.

**Persistently tight labor markets.** One of the most important things policymakers can do to drive faster progress for workers is to achieve and maintain tight labor markets.

The slow and uneven recovery from the Great Recession represents one of the most consequential policy failures of the past half century. While it was the longest economic expansion in U.S. history, it wasn't until 2019—roughly a decade into the expansion—that the country began approaching what could be considered a truly tight labor market.

Had the country gotten there sooner, wage growth over the past three decades would have been much more impressive, and millions of people would have been pulled off of the sidelines and back into the labor market more quickly, reducing the lingering harms caused by the crisis for disadvantaged workers. Importantly, once the labor market finally got tight, it was low-wage workers that saw the biggest gains.

Unfortunately, the pandemic interrupted a labor market that was still in the process of improving. But the rapid surge in hiring after the initial shock of the pandemic again delivered large wage gains across the workforce, and especially strong gains at the bottom.<sup>58</sup>

Policymakers and pundits are too often enamored with elaborate interventions aimed at symptoms rather than the underlying disease. But when it comes to elevating the prospects of American workers, simply maintaining tight labor markets will do the bulk of the heavy lifting needed to boost wages *and* ensure progress is felt throughout the wage distribution.

Tight labor markets also enable other policy interventions to be better targeted to those whom the market is truly unable to reach.

Fortunately, this is now an area of considerable cross-ideological agreement among economists and policymakers, because it is important that the country never returns to the policymaking complacency of the 2010s recovery period.

**Reigning in runaway drivers of the cost of living.** Finally, lawmakers should focus on areas where the cost of living is skyrocketing and eroding wage gains.

All throughout the economy, harmful policy choices have made it onerous and expensive for businesses to produce the goods and services that people want to buy. The productivity of workers in these industries is stifled, limiting their job opportunities and wages—and workers in all other industries also suffer, as rising prices offset bigger chunks of their paychecks.

These policy obstructions are especially visible in physical industries like manufacturing and construction. Too many projects, from investments in new factories to the construction of new transmission lines, are encumbered by permitting delays, regulatory obstacles, and legal disputes.

It has simply become too hard to build in America.

Nowhere is this a more acute problem than in the housing market. Burdensome layers of zoning regulations and land-use rules have choked the housing market, restricting supply and squashing badly

needed innovation in the construction sector.<sup>59</sup> This has driven up housing prices and stifled worker migration to opportunity-rich areas.<sup>60</sup>

The push for greater economic progress on behalf of workers cannot be separated from the imperative to make it easier, faster, and cheaper to build housing. Fast productivity growth and rapidly rising wages will be of little help to the median worker if these gains are captured by rapidly rising housing costs.

### *Back to the rapid progress future*

The agenda we have just laid out would enable the country to achieve what it has been lacking for too long: not just absolute progress for the typical worker over time, but progress so rapid that nobody disputes whether it is happening. An economy so strong that nobody can doubt that it is uplifting the lives of workers and all who depend on them.

There is no reason to think of such progress as a fanciful dream. The American economy once enjoyed *decades* of it.

So much time has now passed that multiple generations of American workers have been denied the chance to know what it's like. We need not miss out any longer. The growth rates of the postwar decades can be more than just a faint, receding memory.

Progress has slowed, yes, but it certainly has not reversed. The American economy has kept its strong foundations. With an injection of sensible policies, it can return to the dynamism and escalating prosperity of its past.

If it does, we might look back decades from now and see that workers are not only doing better than ever in absolute terms, but that the U.S. economy is finally delivering on its potential—so that American workers can reach theirs.





# Appendix: A Special Note on Real Wages

## Cost of living

What good is it for American workers to have their wages rise by 10 percent if the price of everything they buy also goes up by 10 percent? Their *real wages*—their wages adjusted for inflation—are the same, stagnant.

But if their wages rise by 10 percent and inflation is only 5 percent? Then their real wages are rising. They can afford to buy, for each hour of their labor, more of the goods and services they desire. A clear improvement in living standards.

Now consider what happens if, in this example, economists do not agree on the rate of inflation—if some economists think inflation is 10 percent, while others think inflation is just 5 percent. It follows that they will also disagree on whether real wages have actually gone up.

The example is a simplified version of a real problem. As a measure of economic progress there are few indicators more useful than real wage growth. But to know how much real wages have grown through the years and decades, we first have to know the rate of inflation across those years and decades.

To calculate inflation, economists use a *price index*, also sometimes called a *deflator*, which measures the average change in price of a basket of goods and services.

But there is more than one price index, and it is common for two different price indexes to indicate two completely different rates of inflation. (They differ because of the many assumptions that have to be made in their construction: which goods and services make it into the basket, how much to weight each good and service, how the basket should change over time. And many others.)

Which price index to choose?

We find that only two options are legitimate for calculating the long-run trend of real wage growth: the price deflator for personal consumption expenditures (PCE), and the Consumer Price Index Retroactive Series (CPI-U-RS), which is an updated and improved version of the original Consumer Price Index.<sup>61</sup>

That these are the only two suitable choices is not just our conclusion. We use the PCE, while economists with the progressive Economic Policy Institute, Josh Bivens and Larry Mishel, use the CPI-U-RS. Bivens and Mishel are more responsible than perhaps any other economists for raising public awareness about the long-term disconnect between real wage growth and productivity growth. They take methodological issues seriously—and they agree with us that no options other than the PCE and CPI-U-RS are valid.<sup>62</sup>

And according to both of these price indexes, it is clear that American workers are now paid appreciably higher real wages than they were in



the past. There is no reasonable debate to be had about whether there has been progress, only about how much progress there has been.

Of the to measures, the PCE shows relatively more improvement in real wages. We also believe—respectfully disagreeing with Bivens and Mishel—that it is the right measure to use.

The PCE is preferable because it is a “chained” index. This means that it accounts for consumers' ability to substitute between different goods and services over time, as prices change. (If the price of beef goes up, many shoppers will switch to buying more chicken instead.)

Even researchers who prefer the CPI-U-RS agree that chaining is superior. Bivens and Mishel write, for example, that “a variant of the CPI-U-RS that adopts the ‘chaining’ methodology would make sense to use”. A preference for chaining is consistent with the recommended best practices from a working group of experts from seven government agencies.<sup>63</sup> The group concluded that a chained version of the Consumer Price Index “is considered a more accurate measure of the change in the cost of living since it is based on current consumer behavior and is free of the substitution bias that arises in the other measures from the assumption of unchanged consumer behavior”.

Researchers who nonetheless continue using the CPI-U-RS argue that it includes a more accurate bundle of goods and services than the PCE. For example, the PCE includes health insurance for workers that is partly purchased by their employers. Such a benefit is not included as part of workers’ wages, only as part of their overall compensation—and therefore it should be excluded in the inflation adjustment for wage growth. The CPI-U-RS does exclude it.

This is part of a debatable argument, though a reasonable one. But as can be shown empirically, whatever biases may be in the PCE are overwhelmed by the much larger mistake of not chaining in the CPI-U-RS. No index is perfect. The question is which index tracks reality the closest.

The ideal way to decide between the two indexes would be to chain the CPI-U-RS and then see if the results either remain mostly unchanged or move closer to the PCE.

As it happens, a chained version of the Consumer Price Index does exist. It only measures inflation since the year 2000, but in that limited window of time it tracks the PCE more closely than the CPI-U-RS.

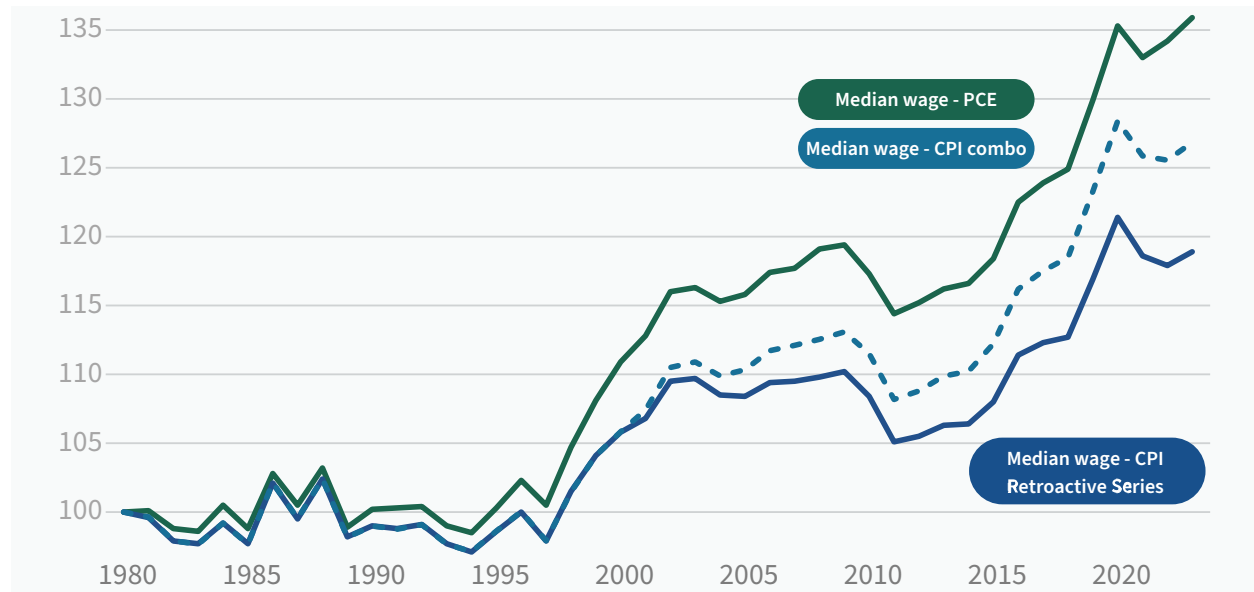
The result suggests that the PCE is likely to produce results over the long term that are closer to what even Bivens, Mishel, and other remaining users of the CPI-U-RS would consider an ideal index.

	CPI-U-RS	Chained CPI	PCE
2000-2023 growth	77.9%	66.7%	63.1%

And to understand the effect of using a chained index on real wage growth since 1980, we can combine the two CPI series into one that uses the chained index since it became available in 2000, and the CPI-U-RS for the years before 2000. (Chart below.)

## Alternative deflators and median wages

Indexed to 1980 = 100



Source: Bureau of Labor Statistics and Bureau of Economic Analysis

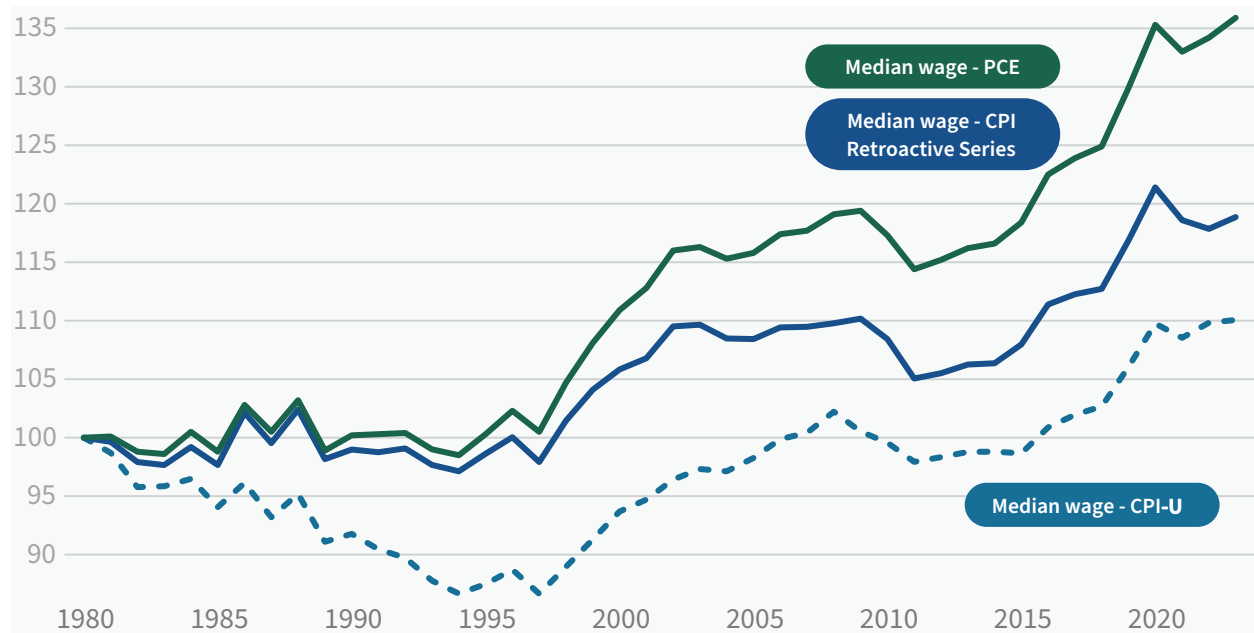
Using this combined index, real wages climbed by nearly 27 percent since 1980. When using only the CPI-U-RS, real wages grew by just 19 percent.

Using the CPI-U-RS is therefore underestimating real wage growth over time precisely because it is not chained—the inferior method.

Finally, we should note that a small subset of researchers use yet another version of the Consumer Price Index: the CPI-U (which is short for the CPI for all Urban Consumers). This version finds that inflation has been much higher than is indicated by the other two price indexes—and therefore that the real wages of American workers have been stagnant for decades.

## Alternative deflators and median wages

Indexed to 1980 = 100



Source: Bureau of Labor Statistics and Bureau of Economic Analysis

But the CPI-U does not account for important methodological corrections by the Bureau of Labor Statistics, and it is not credible or valid to use. Before 1995, for example, whenever name brand drugs lost their patents, the lower costs of generic drugs were not counted as decreases in price, even though that's exactly what they were. This mistake was fixed in subsequent CPI-U releases, but not for data before 1995.

Similarly, the Bureau of Labor Statistics made a series of corrections in 1995 and 1996 to better account for the way it measures changing prices of new items that had been added to the basket (as can happen when a new consumer good is invented). CPI-U data before this point relies on the outmoded methodology, leading it to overestimate inflation.

These are just two examples of the twenty-six corrections that the Bureau has made since 1978.<sup>64</sup> And to be clear, many of these corrections are not differences of opinion on how to measure inflation. They are fixes to historical errors—but, again, they have not been fixed in the historical CPI-U data.

The Bureau of Labor Statistics does continue to use the CPI-U for the inflation adjustment in some economic indicators, which is often misunderstood as confirmation that it is a better measure for calculating long-term real wage growth as well. It is not. The reason that the BLS still uses the CPI-U for certain indicators is simply that it is released more frequently.

We asked the BLS directly, for example, why it sometimes used the CPI-U rather than the CPI-U-RS, and they responded, “CPI-U-RS is not available to us on a quarterly basis and therefore we do not incorporate it into our earnings releases.”<sup>65</sup> They further confirmed that their use of the CPI-U over the CPI-U-RS should not be interpreted as an endorsement of the CPI-U's methodological superiority for adjusting inflation over time.

For long-run comparisons of real wage growth, timeliness constraints are irrelevant, and the CPI-U should not be used.

## What all deflators miss

While the PCE is the best of the available inflation measures, all of them underestimate the rise in price of certain goods and services. Nowhere is this clearer than with housing.

Price indexes have traditionally ignored changes in prices that are due to bigger houses over time. And houses have definitely gotten bigger. The average new single-family home is 44 percent bigger than in 1980, and the average multifamily unit is 11 percent bigger.

This is one reason that median rent has climbed by 435 percent since then. But the part of the PCE price index that reflects housing costs is up only 378 percent, a clear underestimation.

It is true that having more space in a home is often a sign of a home's better quality. And so a reasonable case can be made that *it is correct* for the PCE to show inflation in housing that is lower than the rise of the actual costs—to reflect that homebuyers are buying more home.

But housing is different from other goods because the increase in size is at least in part caused by policy. A morass of zoning laws across the country has made it nearly impossible to build smaller, entry-level homes.<sup>66</sup> That the average home has become bigger should not be dismissed as the benign preference of consumers. By underestimating the rise of housing costs, price indexes are overestimating progress.

Going in the other direction, there are ways that price indexes might also be *underestimating* progress. Researchers mostly agree, for example, that consumers place a higher value on newly invented goods than is captured in the inflation data.<sup>67</sup>

Yet this kind of unmeasured improvement in quality of life existed in past periods as well. As the economic historian Robert Gordon persuasively argues, to the extent that such mismeasurement is still a problem, it is likely smaller than in the past.<sup>68</sup> It does not overturn the relative slowdown in progress that the measured data shows us.



# Endnotes

- 1 [Gallup asked](#) full and part-time workers “Now I’ll read a list of job characteristics. For each, please tell me how satisfied or dissatisfied you are with your current job in this regard. First, are you completely satisfied, somewhat satisfied, somewhat dissatisfied or completely dissatisfied with ... Your job security?” We use this question as a baseline for the American workers assessment of their job security.
- 2 This has been a point of analysis across the political spectrum. Both the Economic Policy Institute’s report, “[The Productivity-Pay Gap](#),” and the American Enterprise Institute’s report, “[Understanding Trends in Worker Pay over the Past 50 Years](#)” discuss the phenomenon in depth.
- 3 The average annualized growth rate for the real average hourly earnings of production and nonsupervisory employees grew at a rate of 1.6 percent from 1950 to 1979. This fell to 0.7 percent from 1980 to 2023. These values are calculated using the Current Employment Statistics provided by the Bureau of Labor Statistics. We adjust the average hourly earnings of production and nonsupervisory employees using the Personal Consumption Expenditures Price Index.
- 4 See Appendix.
- 5 The civilian labor force level increased from 107 million in 1980 to 167 million in 2023.
- 6 These values are calculated using the American Community Survey and the Decennial Census.
- 7 The [Census Bureau’s analysis](#) of the Current Population Survey’s Annual Social and Economic Supplement and the Educational Attainment in the United States: 2022 table package.
- 8 In 1980, the median labor force participant was 34 years old. In 2023, the median labor force participant was 41. This was calculated using the Current Population Survey’s Annual Social and Economic Supplement.
- 9 This was calculated using the Current Population Survey’s Annual Social and Economic Supplement.
- 10 In 1980, 20.9% of those aged 65 to 69 were in the labor force. In 2023, that was 34%. This was calculated using the Current Population Survey’s Annual Social and Economic Supplement.
- 11 This was calculated using the Current Population Survey’s Annual Social and Economic Supplement. Race, ethnicity, and sex categories and information follow the definitions outlined in the data at the time of the survey.
- 12 This was calculated using the Current Population Survey.
- 13 The number of women in the civilian labor force grew as a share from 29.6 percent in 1950 to 42.5 percent in 1980. That rate of growth declined significantly, as the women’s share of the civilian labor force in 2023 was 46.8 percent.
- 14 Our calculations align with previous work. See Autor, David, Claudia Goldin, and Lawrence F. Katz. “[Extending the race between education and technology](#).” AEA Papers and Proceedings. Vol. 110. 2014 Broadway, Suite 305, Nashville, TN 37203: American Economic Association, 2020.
- 15 The prime working-age population is of particular importance because it is a measure that can account for the aging of the American population. As demographics shift toward an older profile, the civilian labor force participation rate will inherently decline due to an aging out of work. This is not an unexpected component, and has been an important factor in forward looking analyses of the labor market. See Toossi, Mitra. “[Labor force projections to 2020: A more slowly growing workforce](#).” *Monthly Lab. Rev.* 135 (2012): 43.
- 16 In 1980 the prime-age labor force participation rate was 78.6 percent. In 2023, that had risen to 83.3 percent, less than a percent off the peak reached in the late 1990s.
- 17 Aggregate participation rate in the civilian labor force has fallen as a result of population shifts toward low-participation groups rather than within-group changes in participation. See Cooper, Daniel H., et al. “[Population aging and the US labor force participation rate](#).” *Federal Reserve Bank of Boston*. (2021).
- 18 This was calculated using the Current Population Survey.
- 19 In recent years, women have been shown to engage in multiple jobholding when jobs are prevalent and available. This is in contrast to the 1980s and early 1990s, when women’s multiple jobholding was shown to be countercyclical. Male multiple jobholding does not appear to be dependent on the business cycle. See Amuédó-Dorantes, Catalina, and Jean Kimmel. “[Moonlighting over the business cycle](#).” *Economic Inquiry* 47.4 (2009): 754-765.
- 20 Calculated using the Current Employment Statistics provided by the Bureau of Labor Statistics.
- 21 The Current Population Survey allows for the Census Bureau to include a recoded variable describing the part-time or full-time employment status for a respondent as well as the reasons for their work status. This allows us to explore which share of part-time workers are doing it for economic reasons, and which are doing it because that is their preferred work structure.
- 22 This was calculated using the Current Population Survey.

- 23 This was reported by the Bureau of Labor Statistics using the Current Population Survey.
- 24 See Lettieri, John, and Kenan Fikri. "[The Case for Economics Dynamism: and why it matters for the American worker.](#)" (2022).
- 25 This was calculated using the Current Population Survey.
- 26 Bureau of Labor Statistics (BLS). 2023. [National Compensation Survey: Employee Benefits in the United States, March 2023.](#)
- 27 Bureau of Labor Statistics (BLS). 2023. "[What data does the BLS publish on family leave?](#)"
- 28 This was calculated using the Bureau of Labor Statistics National Compensation Survey and the Employee Benefits Survey.
- 29 This was calculated using the Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses.
- 30 According to the [Employment Situation Summary](#) via the Bureau of Labor Statistics for April 2024 As of the writing of this analysis, the US has experienced the [longest streak of sub-4 percent unemployment since the 1960s.](#)
- 31 Bureau of Labor Statistics (BLS). "[Union Members — 2023.](#)"
- 32 Bureau of Labor Statistics (BLS). "[Characteristics of minimum wage workers, 2023.](#)" Interestingly, the expansion of state-based minimum wage increases appear to be the primary source of wage compression before the onset of the COVID-19 pandemic. See Autor, David, Arindrajit Dube, and Annie McGrew. *The unexpected compression: Competition at work in the low wage labor market.* No. w31010. National Bureau of Economic Research, 2023.
- 33 The American Community Survey and the Decennial Census and Decennial Census. In the 1980 Census, 2.2% of employed workers report a primary mode of transportation to work as "worked at home". By 2022 this had risen to 14.9%.
- 34 In April 2024, [11.3 percent reported working some telework hours while 10.2 percent teleworked all of their hours.](#)
- 35 Calculated using Current Employment Statistics.
- 36 Manufacturing has seen a decline in its share of GDP that corresponds with the decline in its share of employment, dropping from one-fifth to one-tenth since 1980. Manufacturing output, however, has grown considerably even as its relative share of the U.S. economy has diminished. Indeed, the manufacturing sector has nearly quadrupled since 1980; the rest of the economy has simply grown even faster.
- 37 For the purposes of our analysis of the Current Employment Statistics industry shares of employment, we bring over estimates of the agricultural share of employment from the Current Population Survey. After accounting for this we find that health and education and professional business services together account for 30.4 percent of employment. This increased from a level of 15.6 percent in 1980.
- 38 Bureau of Labor Statistics "[Long term labor productivity by sector for selected periods.](#)"
- 39 See the [Work and Workplace](#) survey by Gallup.
- 40 See the [Job Satisfaction](#) survey by the Conference Board.
- 41 See the [Work and Workplace](#) survey by Gallup.
- 42 We calculate the median wage of workers using the [Current Population Survey \(CPS\) - Merged Outgoing Rotation Group Earnings Data.](#) Specifically, we explore the private non-agricultural workforce who had information on either their hourly wage rate or their weekly wages and hours worked. We then adjust wages using the Personal Consumption Expenditures Price Index.
- 43 We define compensation using the [National Income and Product Accounts tables](#) provided by the Bureau of Economic Analysis. We calculate the ratio between the compensation of employees and the wages and salaries of employees and use that ratio to inflate the median wages calculated from the [Current Population Survey \(CPS\) - Merged Outgoing Rotation Group Earnings Data.](#) Those wages are adjusted using the Personal Consumption Expenditures Price Index.
- 44 [Average hourly earnings of production and nonsupervisory workers](#) comes from the Current Employment Statistics, a monthly survey of business establishments. Median wages come from the [Current Population Survey \(CPS\) - Merged Outgoing Rotation Group Earnings Data,](#) a monthly survey of households.
- 45 While this report primarily examines the period from 1980 to the present, the era of wage stagnation was a roughly two decade stretch beginning in the early 1970s and ending in the early 1990s.
- 46 When considering the share of the labor force that likely entered the labor force after 1993, we break out today's current labor force into two groups - those whose lowest level of education was a bachelor's degree, and those who did not receive a bachelor's degree. We then consider how many members of the labor force today, who did not receive a bachelor's degree, would have been at most 19 years of age in 1994. This gives us a sense for people who may have left high school and entered the labor force from 1994 to 2023. For those who received a bachelor's degree, we consider people in today's labor force who would have been at most 22 years old in 1994. Together, these two groups give us a sense of the share of today's labor force who likely did not experience the labor stagnation period. In 2023, more than 65 million labor force participants were under the age of 48 and had less than a bachelor's degree. An additional 47 million were under the age of 51, and held at least a bachelor's degree. Combined, these groups represent approximately 67.6% of the total 2023 labor force.

- 47 Calculated using the [Current Population Survey \(CPS\) - Merged Outgoing Rotation Group Earnings Data](#).
- 48 Calculated using the [Current Population Survey \(CPS\) - Merged Outgoing Rotation Group Earnings Data](#).
- 49 The limp wage growth from 1980 to 1993 remains mysterious, but one thing that is certain is that the 1970s period of stagflation, where both unemployment and inflation are high, left policymakers in a difficult spot. The Federal Reserve increased interest rates rapidly beginning in the late 1970s and they stayed high until the early 1990s. The average real effective federal funds rate—the federal funds rate adjusted for inflation—was nearly 4 percent between 1980 and 1993. Since then, it has been close to zero, on average. As for the labor market, the average unemployment rate from 1980 to 1993 was 1.21 percentage points above the “structural” unemployment rate as estimated by the Congressional Budget Office. That gap has been much narrower in the three decades since, at 0.73 percentage points—a sign that policymakers have overall been more willing to tolerate a stronger labor market because the return of 1970s inflation appeared increasingly unlikely. This does not suggest they always got the balance right in recent decades. We would argue that the Great Recession recovery in particular was marked by excessive inflation fears and a weaker labor market than was necessary. Nonetheless this still represented a more accommodating Fed than in the past.
- 50 Average growth in productivity declined markedly in the 1970s and further still in the 1980s. From 1980 to 1993, [annual labor productivity growth in the nonfarm business sector](#) averaged 1.6 percent per year. Ever since, it has averaged 2 percent. Given the effects of compound returns, this is quite a big difference. Absent any other causes, this by itself would practically guarantee slower wage growth in the earlier period. (Labor productivity is a means of measuring the change in output not explained by hours worked. The more that a worker can get done in an hour of work, the greater the marginal value of an hour worked is to their employer.) Advances in computers and communications technology helped push up productivity growth in the mid-1990s, which is another reason the labor market picked up again around that time.
- 51 See Winship, Scott. "[Understanding Trends in Worker Pay over the Past 50 Years](#)." (2024).
- 52 Calculated using the Current Population Survey’s Annual Social and Economic Supplement. Members of the same family will share the same value of family income, regardless of work status, but we estimate the median family income solely among workers. This allows us to explore trends in family income in aggregate and among working men and women.
- 53 See Appendix.
- 54 The American Enterprise Institute’s report, “[Understanding Trends in Worker Pay over the Past 50 Years](#)” by Scott Winship, outlines multiple methods of analyzing the gap between productivity and compensation. Winship (2024) finds that “while productivity rose 111 percent from 1973 to 2022, median hourly compensation rose by only 50 percent.”
- 55 See O’Brien, Connor. “[Trends in U.S. Business Dynamism and the Innovation Landscape](#)” Economic Innovation Group, 20 September 2023.
- 56 See Newman, Daniel. “[The Startup Surge Continues: Business Applications on Track for Second-Largest Annual Total on Record](#).” Economic Innovation Group, 24 July 2023.
- 57 See Singla, Shikhar. “[Regulatory Costs and Market Power](#)” (2023).
- 58 See Autor, David, Arindrajit Dube, and Annie McGrew. [The unexpected compression: Competition at work in the low wage labor market](#). No. w31010. National Bureau of Economic Research, 2023.
- 59 See D’Amico, Leonardo, et al. “[Why Has Construction Productivity Stagnated? The Role of Land-Use Regulation](#).” *The Role of Land-Use Regulation* (December 30, 2023) (2023).
- 60 See Hoxie, Philip G., Daniel Shoag, and Stan Veuger. “[Moving to density: half a century of housing costs and wage premia from queens to King Salmon](#).” *Journal of Public Economics* 222 (2023): 104906.
- 61 See Bivens, Josh, and Lawrence Mishel. “[Understanding the historic divergence between productivity and a typical worker’s pay: Why it matters and why it’s real](#).” *Economic Policy Institute* 2 (2015).
- 62 [Bivens and Mishel \(2015\)](#) write: “For typical workers’ pay, there are really only two deflators that one could make a serious argument for using: the CPI-U-RS (a variant of the standard consumer price index [CPI-U] from the BLS that adjusts for past problems in measuring housing costs) and the price deflator for personal consumption expenditures (PCE) from the BEA.”
- 63 See “[Report to the Office of Management and Budget: Consumer Inflation Measures](#)” June 16, 2021.
- 64 See “[Table 1. Improvements to the Consumer Price Index for All Urban Consumers \(CPI-U\) since 1978, and their effect on the CPI retroactive series using current methods \(R-CPI-U-RS\)](#).”
- 65 BLS via email communications, May 2024.
- 66 Gyourko, Joseph, Jonathan S. Hartley, and Jacob Krimmel. “[The local residential land use regulatory environment across US housing markets: Evidence from a new Wharton index](#).” *Journal of Urban Economics* 124 (2021): 103337.
- 67 Feldstein, Martin. “[Underestimating the real growth of GDP, personal income, and productivity](#).” *Journal of Economic Perspectives* 31.2 (2017): 145-164.
- 68 Gordon, Robert. [The rise and fall of American growth: The US standard of living since the civil war](#). Princeton university press, 2017.