



ISSUE BRIEF: FAMILIES

# A college degree is not the solution to U.S. wage inequality

July 2020 By Kathryn Zickuhr

## Overview

Relatively stagnant or declining wages for the vast majority of U.S. workers became a feature of the U.S. economy after the 1970s, along with a shift to “lousy” and low-wage jobs and rising wage and income inequality despite increasing productivity.

One of the explanations for this job-quality crisis is that not enough workers have the skills required for an increasingly digital and technologically advanced jobs market, leading to a widening gap between the

rising wages of the highest-paid workers and everyone else. The concept of a skills gap was likewise blamed for high unemployment after the Great Recession ended in July 2009 and is now cited as the key challenge facing low-wage workers amid the current coronavirus recession. The proposed solutions to closing this apparent gap center around education and training for low-wage workers, often with a focus on getting more workers to obtain college degrees, so they can fill these high-wage, high-demand jobs.

Yet this focus on individual workers misses the structural conditions that constrain workers' options and ability to share in economic growth. This issue brief examines recent data-driven research that demonstrates the skills gap is only a small and relatively unimportant explanation for the college wage premium because it fails to account for declining worker power and the role of monopsony in the labor market. These more important explanations for the college wage premium—and its recent decline—underscore why policymakers need to improve the underlying labor market conditions for all workers, instead of shifting responsibility to those already struggling in an uneven playing field.

## The college wage premium can't explain the ongoing rise in wage inequality

A recent [National Bureau of Economics Research working paper](#) by economists David Autor at the Massachusetts Institute of Technology (and a member of Equitable Growth's Research Advisory Board) and Claudia Goldin and Lawrence F. Katz (also an Advisory Board member) of Harvard University demonstrates how the college wage premium changed over time in response to labor market changes and policy shifts affecting worker power. While the paper itself is based in a skills-focused framework, its findings show that even this framing falls short when attempting to explain the rise in wage inequality since 2000.

The paper is part of a series of research that assumes employers' demand for skilled labor is driven by "[skill-biased technological change](#)." This framework holds that technological advancements—such as computers or robotics—improve the productivity of workers with the skills and education necessary to use the technology more than they improve the productivity of less-skilled workers. The result is a "race" between technology and education, where technological advancements lead employers to require more highly educated workers, but immediate shortages in the supply of educated workers result in higher wages for the college-educated candidates already in the workforce.

This framework is premised on a simplistic supply-and-demand model of the market that supposes wages are purely a result of demand for worker attributes and those attributes explain wage levels for individual workers. In framing wage distribution and outcomes in this way, it overlooks other important factors such the influence of institutions, [including unions](#), and the relative power of workers and employers in changing labor markets.

The new paper expands on previous research, including a 2007 paper by Goldin and Katz, “[The Race Between Education and Technology](#),” which tracked the differences in wages for workers with different education levels from 1890 to 2005. This paper combines several data sources to extend that analysis to look at the relationship between years of schooling and wages over the period from 1825 to 2017.

In line with previous research, the latest paper by Autor, Goldin, and Katz finds that when demand for educated workers is high and supply is low, such as in the late 1800s, the wage premium for educated workers—defined as the average difference between their wages and those of less-educated workers—is high. When the supply of educated workers increases, as it did over the early part of the 20th century, the wage premium falls. The definition of a relatively educated or skilled worker shifts over time, of course, depending on education trends and available data sources, beginning with those who did clerical work (which generally required a high school background) prior to 1914 and then tracking those with high school and college degrees or equivalents.

Since the beginning of the 20th century, the three researchers find that a 10 percent increase in the relative supply of college-educated workers leads to a 6 percent reduction in the college wage premium. The paper argues that models using this framework can explain most of the wage premium for educated workers—but only until the 2000s, when other factors appear to play a larger role.

As the authors note, the wages of educated workers only describe one side of the education wage premium. Because wage premiums refer to the difference between earnings for educated and less-educated workers, they depend not only on the added value for educated workers but also the opportunities for workers without that educational background. The strong decline in wage premiums for high school and college educations in the 1940s probably did not happen because the supply of educated workers increased dramatically—in 1940, the reach of high school education had expanded, but only 6 percent of men and 4 percent of women had [completed 4 years of college](#). Instead, the authors write, the lower relative returns to education in the 1940s were “likely driven by strong unions, tight labor markets, and government wage pressures during World War II.”

Likewise, the three authors find that the strength of American unions and a robust national minimum wage also contributed to a decline in the college wage premium in the late 1970s. This happened because wages improved for those in occupations that did not require a college degree.

When the three authors examine more recent wage patterns, they find that wage inequality rose at roughly the same rate between 1980 and 2000 as it did between

2000 and 2017, but also that the college wage premium could explain 75 percent of this increase in the first time period and only 38 percent in the second time period. Furthermore, wage inequality increased within college degree holders since 2000, and workers with advanced post-college degrees earned even greater wage premiums.

The authors conclude that the framework of a race between education and technology “remains relevant in the 21st century, but needs some tweaks” to fully capture the drivers behind the rising wage inequality the United States experienced since 2000.

## Rising education requirements are not necessarily due to increasingly skilled work, and the returns of a college education are often less for the workers who need it most

One of the factors complicating a straightforward interpretation of the college wage premium is that employers often require college degrees for positions for reasons other than the content of the role’s duties. One way this is evident is when employers often raise job education requirements during times of high unemployment, when there are many candidates for jobs, but may also drop these requirements when the labor market tightens. Over time, as a greater share of workers earns college degrees, education requirements may continue to rise—but, crucially, not because the duties of the job require greater skill or education levels.

As a paper by Paul Beaudry of the University of British Columbia and the National Bureau of Economic Research, David A. Green of the University of British Columbia and Institute for Fiscal Studies, and Benjamin M. Sand of York University found, the decline in demand for college degrees since 2000 led many college-educated workers to take jobs that did not require a degree, which, in turn, pushed workers without degrees down into even lower-wage jobs. The Roosevelt Institute also notes that requiring unnecessary degrees drives more students to attend college, often taking on large amounts of debt in the process, because they’ve been told they can’t afford not to.

The evidence is clear that while a college degree is increasingly a requirement for middle- and high-wage jobs, it is not a guarantee of higher earnings, especially for people of color. Discrimination and occupational segregation continue to limit wages and economic opportunity for Black and Latinx workers and intersect with

gender discrimination to additionally lower wages for Black women and Latinas. The new NBER working paper by Autor, Goldin, and Katz examined in the previous section of this issue brief did not break out college wage premiums by race and ethnicity, but other research shows that Black and Latinx workers with college degrees continue to earn lower wages than White workers with college degrees.

In addition, Black workers with college degrees experience higher unemployment rates compared with White workers with college degrees, as shown by economists Jhacova Williams and Valerie Wilson of the Economic Policy Institute. The two economists also find that Black workers are more likely to be underutilized in jobs that do not require a college degree.

Then, there's evidence that shows how external factors limit the role of a college degree in driving economic mobility. As economist Brad Hershbein writes for The Brookings Institution, a college degree is still associated with higher earnings, on average, but actually benefits the wages of those from lower-income backgrounds less. Hershbein finds that college graduates from very low-income backgrounds—those from families below 185 percent of the federal poverty level—see less of a relative income bump from their degree over the course of their careers than college graduates from higher-income backgrounds.

College graduates from very low-income families go on to earn 91 percent more than people from the same income background who only graduated high school, but college graduates from families with higher incomes earned 162 percent more compared with high school graduates from that income background. If the content of a college degree is the key to skilled work and greater economic mobility, then these findings should be the reverse. Instead, these findings—along with research on the role of household wealth and of student debt—show that the college wage premium is not a straightforward story.

## The skills gap framing ignores the underlying dynamics of job quality and worker power

The new NBER paper by Autor, Goldin, and Katz demonstrates that the college wage premium declined when unions were strong and the real minimum wage was at its peak. The research shows that the college wage premium is less a story of supply and demand—let alone about the inherent value of a college degree—and more about other U.S. labor market factors such as the underlying dynamics of job quality and worker power. It is also the story of the opportunities for workers without a degree and the protections they have.

We see the importance of these factors in another [recent NBER working paper](#), by Matthias Doepke of Northwestern University and Ruben Gaetani of the University of Toronto, which sheds more light on the intersection of skills, job quality, and worker protections. Comparing college differentials in the United States and Germany since 1980, the paper's findings suggest that a major reason why the college wage premium has risen in our nation compared to Germany is that German employment protections reduce the number of worker separations from their employers and encourages employers to invest in workers.

Doepke and Gaetani's model suggests that the very precarity and lower-quality of jobs in the United States do not allow these workers to develop skills over time in the same way that college-educated workers can. This bolsters the idea that part of the cause for the college wage premium is higher-wage workers' bargaining power.

Ultimately, the skills-focused [competitive market approach](#) needs more than a tweak to fully capture the forces shaping earnings for workers. As Equitable Growth Labor Market Policy Director Kate Bahn [explains](#), the idea that a skills gap is at the root of wage inequality ultimately ignores the role of unions, worker power, and the broader policy decisions affecting low-wage workers. In a recent [Equitable Growth working paper](#) by Bahn and Mark Stelzner of Connecticut College, the authors demonstrate how barriers to job search by race and ethnicity, particularly lack of access to wealth for workers of color and women workers, means that these workers face more difficulty managing their lives and job searches while being unemployed longer without earnings.

Because workers from marginalized groups can't afford to wait for better job opportunities, employers wield a greater ability to offer lower (discriminatory) wages. Fostering worker bargaining power through pro-labor institutions, such as supporting union organizing and enforcing anti-discrimination laws, reduces the ability of employers to use their [monopsony power](#) to exploit workers by race and gender. Similarly, other research shows that raising the minimum wage directly benefits low-wage workers, [reducing income inequality](#) and [narrowing racial wage disparities](#).

## To reduce wage inequality, improve conditions for all workers, not just those at the top

As Equitable Growth [noted in 2014](#), one of the results of assuming that education differences provide the main explanation for rising wage inequality in the United States is to lead policymakers to view college as a blanket solution for inequality.


But the evidence from the Great Recession shows that the apparent skills gap is often driven by greater employer power in times of high unemployment, and that a college degree does not protect workers from low-paying, low-quality job options with no bargaining power and no opportunities to learn and grow. Focusing on education as the first and leading solution to wage inequality ignores the larger issues that undercut workers' options and further racial disparities. While education and training are often part of what workers need to access quality jobs, they will not be sufficient without worker power to ensure they share in the productivity gains their value-added inputs create.

If past trends continue, policymakers can expect employers to respond to the current record-setting unemployment levels by continuing to raise education requirements. And many policymakers will attempt to respond to this sudden skills gap with calls for more education and training. But the solution to today's dismal jobs numbers is not tell workers to go into debt acquiring credentials only to be rehired at the same types of jobs that had not previously required a degree. Instead, policymakers need to address the structural conditions shaping jobs and wages across the board, focusing on the needs of workers at the bottom of the income ladder. This will require raising the minimum wage to improve outcomes for the country's most vulnerable workers, actually enforcing anti-discrimination laws to reduce pay disparities by race and gender, strengthening unions to give workers a voice in their working conditions and training opportunities, and checking the rising monopsony power that prevents workers from sharing economic growth.

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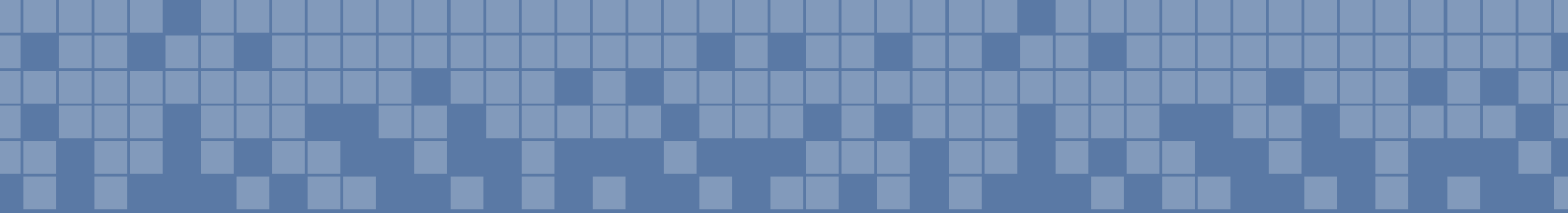
 [equitablegrowth.org/feed](http://equitablegrowth.org/feed)

 [info@equitablegrowth.org](mailto:info@equitablegrowth.org)

1156 15th St NW Suite 700

Washington DC 20005

202-545-6002



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