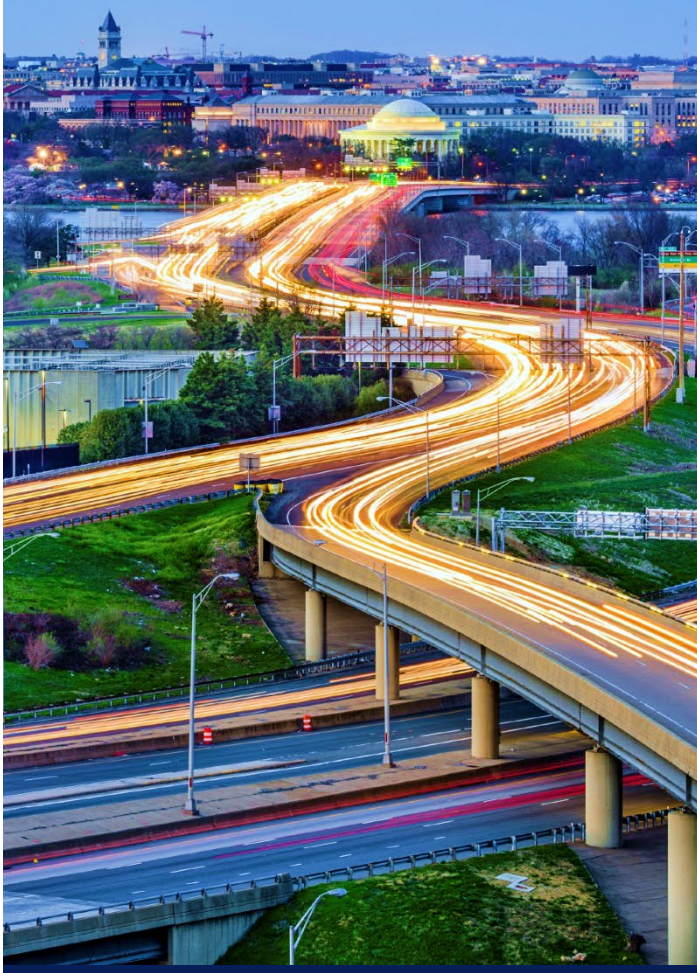
The Pay-Productivity Gap:

A Primer for HR



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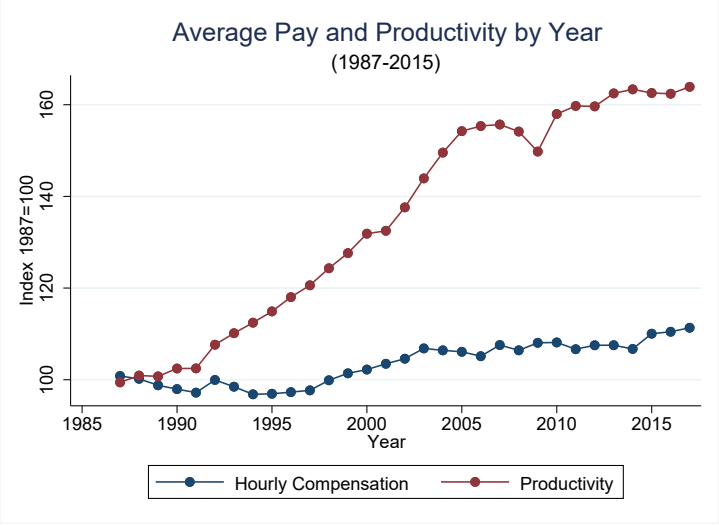
A Primer for HR

THIS ARTICLE PROVIDES A BRIEF PRIMER FOR HR PROFESSIONALS ON THE PRODUCTIVITY-PAY GAP; WHAT IT IS AND WHY IT IS IMPORTANT FOR HR. NEW DATA ALSO PROVIDE INSIGHTS INTO HOW EMPLOYEES' PERCEPTIONS OF ORGANIZATIONAL EFFORTS TO REDUCE WAGE GAPS IMPACT TURNOVER INTENTIONS.

The Pay-Productivity Gap over Time

Over the past few decades, productivity has shot up while worker compensation remained relatively flat. Workers are simply not getting paid as much relative to what they are producing per hour (i.e., productivity). For two-and-a-half decades beginning in the late 1940s, the pay of typical workers increased in tandem with productivity (Economic Policy Institute, 2018). As the economy expanded, Americans continued to receive better pay. However, in the 1970s, the gap between productivity and pay started to widen. Over nearly three decades, productivity levels quickly climbed while wages remained relatively flat. While productivity took a slight dip during the 2009 recession, it subsequently bounced back, growing at a more modest clip than it had before.

The gap between worker compensation and productivity now as wide as it ever has been, with little indication that the trend will reverse course. But while this metric is easy to see, it hasn't been particularly specific. To understand this better, research statisticians worked to unpack these numbers—looking for how this overall gap is expressed in specific industries. Using data from the Bureau of Labor Statistics (BLS), it is clear that gaps between pay and productivity varied significantly from industry to industry.



The Pay-Productivity Gap across Industries

In this section, we examine the pay-productivity gap across different industries and identify which are experiencing the greatest pay-productivity gaps.

Industries (and most notable companies) with Extreme Pay-Productivity Gaps

Industries with the Highest Pay-Productivity Gap	Industries with the Lowest Pay-Productivity Gap
Computer and peripheral equipment manufacturing (*ex: Aopen American Inc, Digital Audio Corp*)	Chemical and allied products merchant wholesalers (*ex: Ashland, Arkema Inc*)
Semiconductor and other electronic component manufacturing (*ex: Intel Corp, Cypress Semiconductor Corp*)	Drinking places (alcoholic beverages) (*ex: and nightclubs, bars, cocktail lounges*)
Electronics and appliance stores (*ex: Polaroid, Phillips Healthcare*)	Pharmaceutical and medicine manufacturing (*ex: Johnson & Johnson, Amgen Inc*)
Professional and commercial equipment and supplies merchant wholesalers (*ex: Medline Industries Inc, Styker Corp*)	Metal and mineral (except petroleum) merchant wholesalers (*ex: Alcoa Corp, Leggett and Platt Inc*)

We found that the industries that have the largest increases in productivity without any corresponding increase in pay were predominantly tech-related industries. Interestingly, they also experienced the largest amounts of growth over the past few decades. Industries which experienced relatively little growth during the same time period experienced smaller pay-productivity gaps, with both productivity and pay remaining flat or increasing at similar rates.

Next, we look at three measures to assess which types of occupations experienced the largest gap: technology, job tasks, and college degrees.

Technology

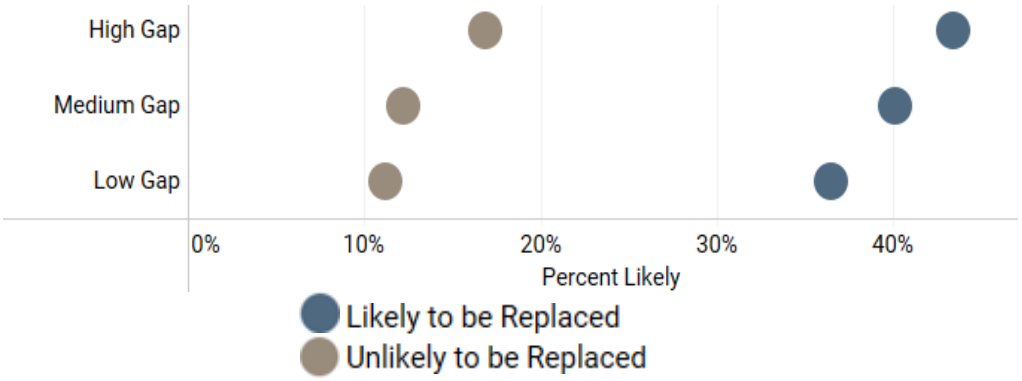
As noted earlier, our results show that highly technical industries are foremost in this growing gap between worker productivity and wages. Drawing on past work by Frey and Osborne (2017), we estimated the likelihood that a given occupation may be replaced by technological change for over 700 occupations. We grouped occupations into two clusters: those that are most likely and those that are least likely to be replaced by technology. We then looked at how many of these occupations are employed in each industry.

Interestingly, we found that the distribution of workers that were most and least likely to be replaced by technology was similar across industries with the highest pay-productivity gap and industries with the lowest pay-productivity gap.

Industries like computer equipment manufacturers contain large amounts of high-skill workers who are less susceptible to replacement by technology. On the flip side, industries like telemarketing where employees are generally paid quite poorly relative to their productivity, might soon be replaced by automation and artificial intelligence.

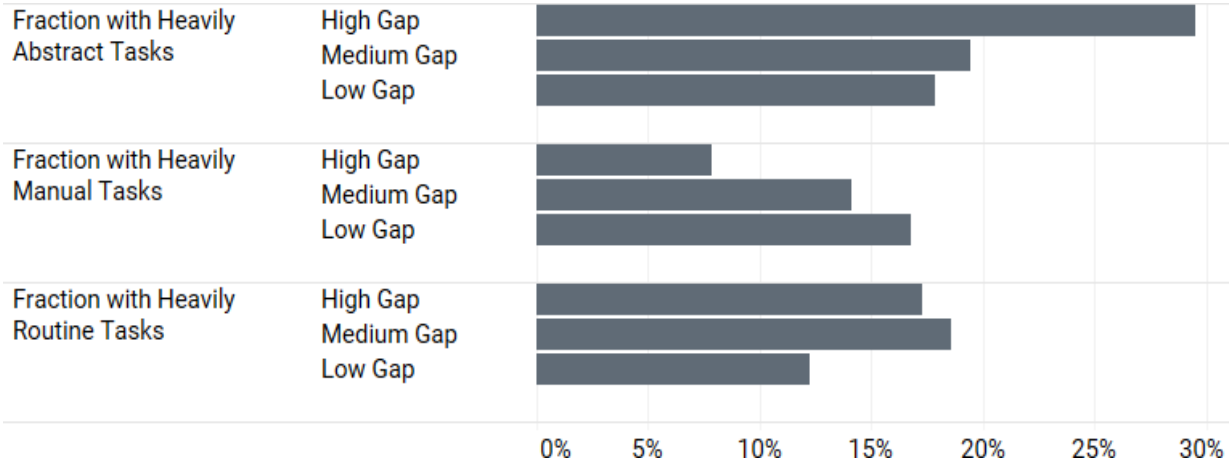
Occupations Most Likely & Least Likely to be Replaced by Technology

More Likely	Less Likely
Electromechanical equipment assemblers	Healthcare social workers
Tax preparers	Computer systems analysts
Telemarketers	Medical and health services managers
Mathematical technicians	Human Resources managers



Job Tasks

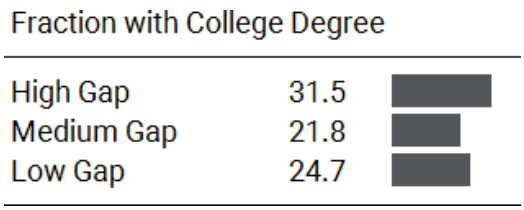
As the above example shows, technology is quickly remaking how and where organizations invest in their talent. This often comes down to the specific job tasks being performed. We used data from Autor and Dorn (2013) to group and then measure occupations as using mainly heavily abstract, routine, or manual tasks. For instance, a college professor is classified as performing heavily abstract tasks, while a retail sales worker performs heavily routine tasks, and a nursing assistant performs heavily manual tasks. These job roles aren't mutually exclusive either. Some occupations can be classified as both, such as manufacturing or construction occupations that might be both heavily manual and heavily routine in their labor.



Industries where workers mostly perform heavily abstract tasks have the largest pay productivity gap, while those with heavily manual tasks generally have much smaller pay-productivity gaps. There is less of a pattern for routine tasks, but taken in total these results suggest that skill-intensive industries are the ones who have experienced the largest divergence between productivity and pay.

College Degrees

Next, we examined whether the pay-productivity gap could be explained by differences across workers' educational attainment, given the evidence that increasing wage inequality in the U.S. is driven by the increasing returns to education (Lemieux, 2006). To study this, our research statisticians linked educational attainment data from the American Community Survey with industry data on pay and productivity. Our findings showed that industries with larger gaps between pay and productivity have workers with higher rates of college education.



These findings are unsurprising given the high correlation between workers with a college education and those performing abstract tasks.

What Does This Mean and What Should Employers Do?

Across all three measures, we see that industries with employees who are more highly educated and perform more abstract tasks have experienced growths in productivity over time that have not been matched by increases in wages. So what does this mean?

A way to read the above data is to follow the wage line. It mirrors trends that have been measured before—that wages simply aren't keeping up with the relative cost of inflation. While GDP in the United States has soared, and productivity has moved ahead, wages still remain flat.

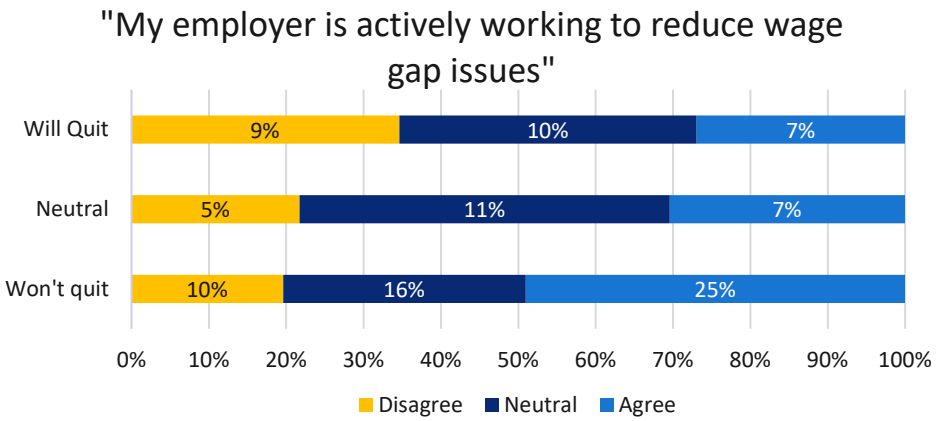
What's important to consider is that wages haven't only remained flat relative to productivity, but they have *felt* flat relative to this is as well. That's particularly important when considering attracting and retaining talent during a moment of historically low unemployment.

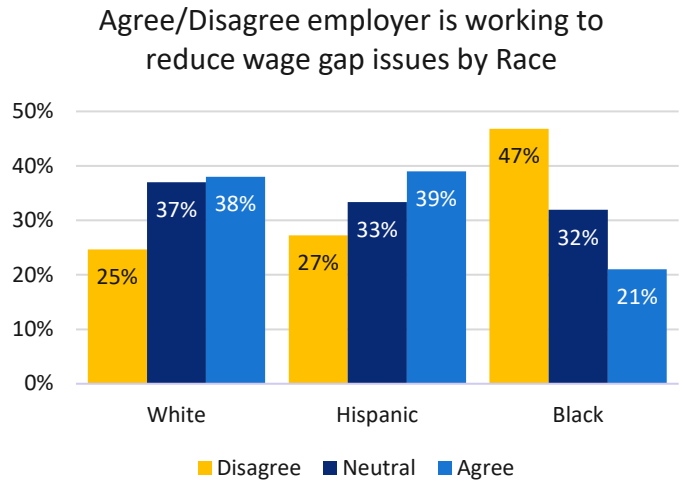
As organizations begin to embrace and implement more sophisticated technology into their strategy, operations, and delivery, they'll be faced with reskilling current talent and choosing high skilled workers to lead the charge—all at a moment when historically low unemployment means that pickings are slim. By remaining attuned to how their workers and future talent feel about this gap, organizations can gain strategic advantage over their peers, luring the best to their ranks while ensuring that their valuable employees don't take their talents elsewhere.

What About Other Kinds of Wage Gaps?

The pay-productivity gap isn't the only kind of wage gap that employers must take into consideration; there are also wage gaps tied to identity-based demographic characteristics such as race and sex. In order to explore the way that these identity-based wage gaps affect the workplace, we asked a nationally-representative sample of American workers several questions related to their careers using NORC's AmeriSpeak omnibus panel.[i]

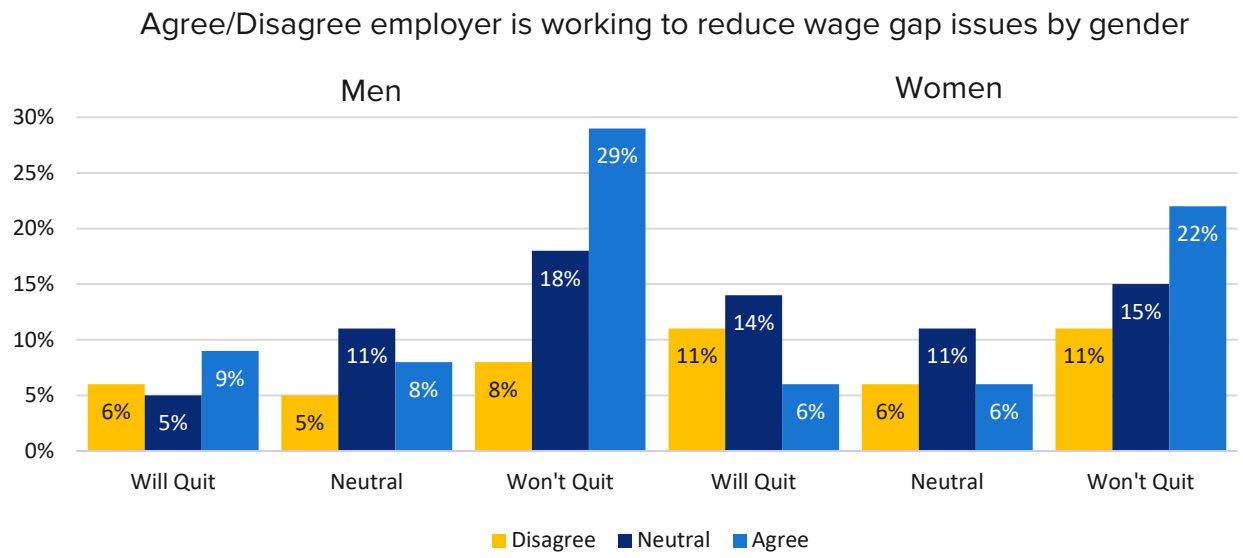
We were particularly interested in understanding how worker's intentions to stay or quit were affected by perceptions of whether employers were making efforts to reduce wage gaps.



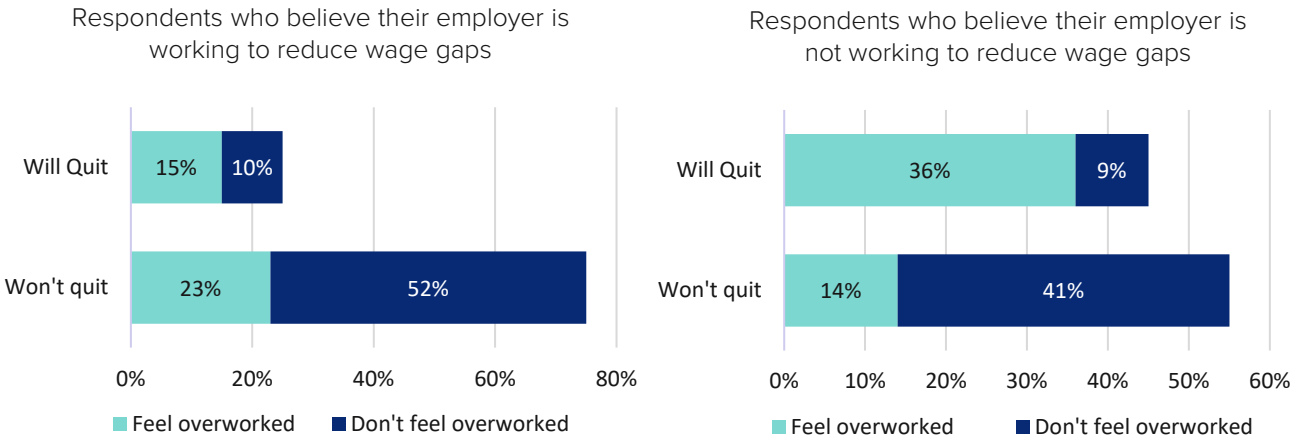


Across all demographics, American workers who perceived their employer as trying to reduce wage gaps were less likely to express intentions to quit. In terms of race, black respondents were least likely to agree that their organization was actively working to reduce wage gaps.

Women were more likely than men to express intentions of quitting if they felt their organization wasn't acting to reduce wage gaps.



Quitting intentions are affected by many factors, and obviously are not tied to wage gap concerns alone. Feelings of being overworked, which are common in those employed in industries with high pay-productivity gaps, can also contribute to quitting intentions. However, the data show that employees who perceive their employer as trying to reduce the wage gap are less likely to express intentions to quit, even if they perceive that they're working long hours.



While an employer being perceived as not acting to reduce wage gaps is not predictive in and of itself of the quitting intentions of their employees, it is possible that failure to address wage gaps could be emblematic of more wide-spread issues of corporate culture and employee treatment.

Larger-scale issues of this type, and general employee perceptions of inequity in their workplace, would likely be very major factors in quitting intention.

The data shows that while employers may be unable to correct pay-productivity and other wage gaps, when employees feel that their organization is taking action, they are more likely to express intentions to stay. By prioritizing minimizing the wage gap, employers can potentially increase employee sentiments of equity in their workplace, and thus may increase employee retention.

Two Ways that Taking Action on Productivity and Wage Gaps May Positively Impact Your Organization

Attract and Retain Talent

As unemployment rates are at a historical low, organizations must continuously embrace new ways to attract and retain talent. Organizational management's key role is to develop employee benefits programs that are well-attuned to their workers' needs and to create a positive and inclusive workplace culture where employees feel supported. Employee perceptions of both organizational and supervisory support (beliefs concerning the extent to which the organization/supervisor values their contributions and cares about their well-being) have been shown to reduce turnover. Employer efforts to reduce wage gaps fit clearly into perceptions that "the organization cares about my well-being", as do sustainable business practices that are in the interest of both the employees and customers. These are key areas to consider when boosting competitive advantage and building overall corporate reputation.

Paying wages that are above the market rate can be an important motivating force for your existing employee base to remain in your organization. While many firms might balk at the thought, it is vital that organizations consider it as an option and do the work to determine if it's viable in their organization. According to just one report, by 2030 global need for high skill tech talent will be 85 million people short. Every lost employee or missed hiring opportunity won't necessarily be made up in a few months, or even a few years.

Not all organizations are in a position where they are able to pay higher wages, and it is not the right choice for every organization, but neither should it be ruled out. When organizations signal to their employees that they are taking steps to reduce wage gap issues, the employees are more likely have positive morale and are more likely to stay and remain committed to the organization. Beyond resolving inequalities in wages, for organizations that can afford to compensate at or above market rates, especially if they haven't always done so in the past, higher wages may be a proactive measure for attracting and retaining the best talent.

Enhance Corporate Reputation

Our survey data from the AmeriSpeak panel showed that employees are less likely to think about leaving if they perceive their organizations are working hard to reduce wage gaps. By boosting wages relative to workers' productivity, an organization can build greater loyalty with their employees and further ensure that they retain their talent. In addition to tangible effects on acquiring and retaining talent, organizations may find that acting to combat wage and productivity gaps can have an important effect on their relationship with consumers. As organizations look to strengthen their brands and their relationships, Corporate Social Responsibility Offices or CSR Champions have become more common. HR leaders who want to make the case for reducing wage gaps and pay-productivity gaps may fine allies within corporate CSR organizations.

Organizations know that it is five times more difficult to attract a new customer than it is to retain an old one, and research has shown that enhancing your organization's reputation is one of the best ways to retain customers. For organizations where it's feasible, boosting employee wages could potentially provide double the value, by both rewarding your valuable talent force and promoting your reputation among customers.

[i] The AmeriSpeak omnibus included 628 respondents. Questions related to the pay-productivity gap were not asked of retirees and the self-employed.