

ANALYSIS

02 DECEMBER, 2020

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Bargaining Power, COVID-19, and the Essential Economy

INTRODUCTION

The COVID-19 pandemic has precipitated an unprecedented health and economic crisis, creating extraordinary challenges for households and businesses. A critical question is how this may be changing how Americans make important economic decisions. Morning Consult and Moody's Analytics have teamed up, conducting an in-depth survey of 5,000 adults in mid-September, to examine how the pandemic is impacting decisions over household finances, parenting, starting a business, wage bargaining, and moving.

Bargaining Power, COVID-19, and the Essential Economy

BY JOHN LEER, DANTE DEANTONIO, BERNARD YAROS, RYAN SWEET, CRISTIAN DERITIS AND MARK ZANDI

The COVID-19 pandemic has precipitated an unprecedented health and economic crisis, creating extraordinary challenges for households and businesses. A critical question is how this may be changing how Americans make important economic decisions. Morning Consult and Moody's Analytics have teamed up, conducting an in-depth survey¹ of 5,000 adults in mid-September, to examine how the pandemic is impacting decisions over household finances, parenting, starting a business, wage bargaining, and moving.

In this paper, we explore the bargaining power of workers in the age of COVID-19 and the role that essential workers have played in the employer-employee relationship during the pandemic. The key findings are:

- » The pandemic exerted moderate downward pressure on workers' willingness to bargain with their employers in aggregate, and particularly on low-income and less well-educated workers who disproportionately experienced a loss of pay or income during the pandemic. At the other end of the spectrum, highly educated workers have grown more willing to bargain with their employers, providing additional evidence of the inelasticity of demand for high-skilled labor.
- » Wage growth during the next business cycle is likely to follow the same path of the prior business cycle, with wage pressures at the low end of the income spectrum remaining subdued well into the recovery.
- » The striking and persistent difference between the willingness of men and women to ask for pay increases makes it even more difficult to address and eliminate the gender disparity in wages.
- » There is a strong generational divide in the willingness to bargain with employers. Older workers are less likely to have asked for increases in pay, and they remain less willing to do so in light of the pandemic.
- » Just over half of surveyed adults self-identified as essential workers. Men were significantly more likely to consider themselves essential than women. The gender gap is the least pronounced in healthcare, which is intuitive since this is a health crisis first and foremost, but it widens in other industries where it may not be as clear what constitutes essential work.
- » Nearly one-third of essential workers received a pay raise because of the risk they have taken during the pandemic. The more comfortable essential workers are in asking for a raise, the more likely they were to have received a pay raise. Specifically, a 10-percentage

point increase in the share of essential workers who are comfortable asking for a raise is associated with a 1.3-percentage point gain in the share of essential workers who got a raise during the pandemic.

Wage bargaining matters

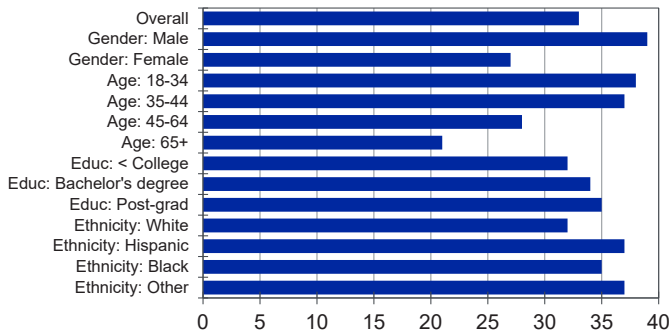
Workers' willingness to bargain with their employers is a critical indicator of their total bargaining power since it both reflects and influences bargaining power.² Understanding the strength of workers' bargaining power sheds light on the paths of employment and income outcomes as the economy experiences and ultimately recovers from the coronavirus pandemic. Workers' bargaining power impacts the economy through three primary channels. First, a decrease in workers' bargaining power slows wage growth since a greater share of gains in productivity go to firms rather than workers. Over the past 40 years, this phenomenon contributed to the

¹ A detailed description of the survey methodology and composition can be found in the appendix of the first paper in this series, "Struggling Through: Household Finances in the Pandemic," which can be found at: <https://www.moodyanalytics.com/microsites/pandemic-economics>

² The other critical component is workers' ability to bargain with employers, which is a function of industry concentration, the elasticity of the supply of labor, and employment laws and regulations. These three factors tend to evolve more slowly over time, meaning that it will take more time for them to impact workers' bargaining power. Thus, workers' willingness to bargain with their employers is a better indicator of the near-term impact of the pandemic on workers' bargaining power.

Chart 1: Bargaining Power Varies

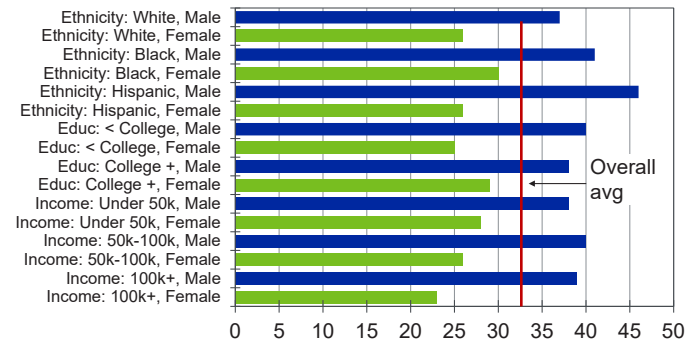
% of respondents who have asked for raise from current employer



Sources: Morning Consult, Moody's Analytics

Chart 2: Wide Gap Amid Men and Women

% of respondents who have asked for raise from current employer



Sources: Morning Consult, Moody's Analytics

relatively sluggish growth in real wages in the U.S. even after accounting for the slowdown in productivity.³ Second, disparities in workers' willingness to engage in wage and benefit bargaining across demographic or employment groups drive differences in pay across these groups. In particular, women and minorities tend to be less willing to engage in bargaining and less aware of the unwritten norms around bargaining, thereby contributing to gender and racial wage gaps.⁴ Third, when workers' bargaining power decreases, wages tend to be less responsive to changes in unemployment, which flattens the Phillips curve and raises additional challenges for central banks.⁵

The effect of the coronavirus pandemic on workers' willingness to bargain with employers is not ex ante clear. On the one hand, the coronavirus pandemic has harmed Americans' finances, challenged parents' careers, and forced many small businesses to close.⁶

Given the challenges facing American workers, one might expect them to feel grateful that they still have a job and less likely to ask for raises, promotions, or other forms of compensation.

On the other hand, many workers are being asked by their employers to perform heroic tasks. Parents are struggling to balance their jobs with their additional child-care responsibilities, and essential workers accepted additional health risks to deliver critical services. Prior to the pandemic, economic conditions had started to favor workers. There were signs that even low-income workers were finally starting to benefit from the tight labor market, as evidenced by low unemployment and rising wages. Given these two competing sets of forces, this paper directly measures these effects and analyzes their implications for the U.S. economy.

Who has bargaining power?

The ability and willingness of workers to advocate for themselves with their employers has important implications for personal gain and overall equity. Systematic differences in workers' willingness to bargain through negotiating a starting salary or asking for a raise or promotion can create a long-term divide in outcomes. Survey responses reveal both expected and unexpected patterns in workers' willingness to advocate for themselves. Perhaps the most frequently discussed difference is that men are far more likely than women to negotiate their starting salary or ask for a raise or promotion (see Chart 1). This disparity represents one of many probable causes

for the enduring gender pay gap in the U.S. workforce.⁷

The survey confirms just how striking and persistent the differences between men and women are in terms of bargaining in the workforce. Across all major demographic groups, women are far less likely to ask for a raise from their employer (see Chart 2). Even highly educated, high-income women—who would be expected to have more bargaining power—are less likely to have asked for a raise than any cohort of men. It is natural to believe that some of this gap may be driven by differences in the industry and occupational composition of men and women in the workforce. However, the survey data confirm that even within specific industries, men are still almost always more likely to engage in bargaining (see Chart 3). Similar patterns emerge across the other bargaining metrics evaluated—willingness to negotiate starting salary and willingness to ask for a promotion. When taken in combination, these represent a significant headwind against women closing the pay gap.

Noticeable differences also arise across other demographic groups. Younger workers are far more likely to bargain over pay than their older counterparts, with workers between 18 and 34 nearly twice as likely to have asked for a raise than workers 65 and older. To a much smaller degree, minority workers are also more likely to engage in bargaining.

3 J. Bivens and H. Shierholz, "What labor market changes have generated inequality and wage suppression?", Economic Policy Institute, December 12, 2018, <https://www.epi.org/publication/what-labor-market-changes-have-generated-inequality-and-wage-suppression-employer-power-is-significant-but-largely-constant-whereas-workers-power-has-been-eroded-by-policy-actions>.

4 S. Caldwell and S. Naidu, "Wage and employment implications of U.S. labor market monopsony and possible policy solutions," Washington Center for Equitable Growth, February 18, 2020, <https://equitablegrowth.org/wage-and-employment-implications-of-u-s-labor-market-monopsony-and-possible-policy-solutions>.

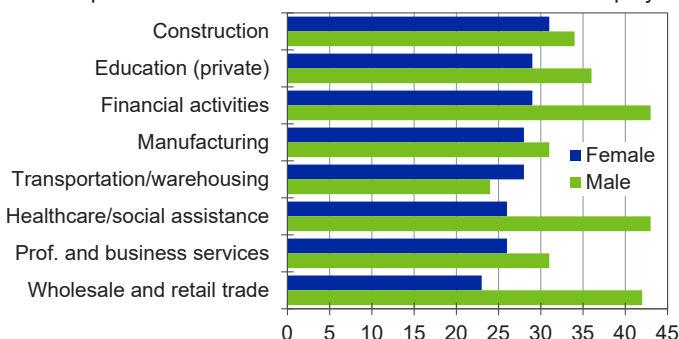
5 A. Krueger, "Reflections on Dwindling Worker Bargaining Power and Monetary Policy" August 24, 2018, Luncheon Address at the Jackson Hole Economic Symposium.

6 These issues have been explored in earlier papers in this series, "Struggling Through: Household Finances in the Pandemic," "Economic Challenges for Parents During COVID-19," and "Business Closures and Entrepreneurship During COVID-19," which can all be accessed at: <https://www.moodyanalytics.com/microsites/pandemic-economics>

7 The gender pay gap has been studied time and again. F. Blau and L. Kahn (2017) provides one such example that posits a multitude of explanations for why the gender pay gap persists today: <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jel.20160995>

Chart 3: Industry Differences Change Little

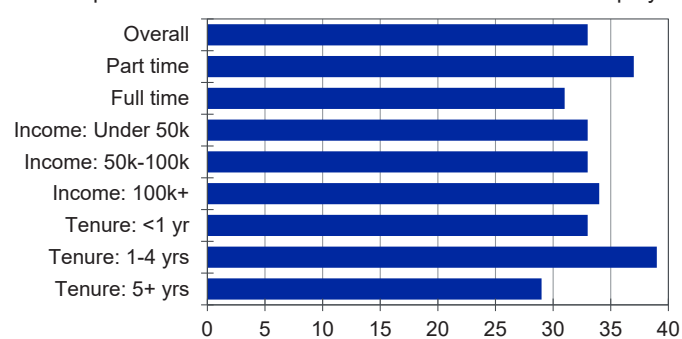
% of respondents who have asked for raise from current employer



Sources: Morning Consult, Moody's Analytics

Chart 4: Part-Time Workers Have a Voice

% of respondents who have asked for raise from current employer



Sources: Morning Consult, Moody's Analytics

Somewhat surprisingly, part-time workers report being more likely to have asked for a raise than those working full time (see Chart 4). Further, workers with longer tenure at their current employer are less likely to have asked for a raise than their less experienced counterparts. Among tenure groups, younger workers are generally still more likely to have asked for a raise (see Chart 5). The age composition of tenure groups is partially responsible for the declining pattern by tenure. Workers age 65 and older are least likely to have asked for a raise, and they account for a far larger share of the longest tenured group. These results confirm existing patterns in workers' willingness to bargain, but just as important is how worker behavior changes over time.

COVID-19 has shaped perceptions

In aggregate, the pandemic exerted moderate downward pressure on workers' willingness to bargain with their employers,

with 23% of employed workers saying that the pandemic has made them less likely to ask for increases in pay or benefits, compared with only 18% who are more willing. The majority (59%) say that it has not materially affected their willingness to bargain with their employers. These results indicate that workers' bargaining power has weakened as a result of the pandemic and that upward wage pressures are likely to remain muted for the foreseeable future even as unemployment decreases.

In most cases, demographic and employment groups that were more likely to have asked for a raise, promotion or increase in benefits prior to the pandemic were also more likely to say that the pandemic has made them more willing to ask for an increase in pay or benefits. In other words, the pandemic has largely confirmed or even exacerbated differences in workers' bargaining power across demographic and employment groups.

Just as men are more likely to have asked for an increase in pay or benefits in the past, a greater share of men (20%) said that they are more willing to bargain with their employers as a result of the coronavirus pandemic than the share of women (15%). The gender divide widens when focusing on perceptions of power

to ask for raises or benefits. Among employed women, 28% feel that they have less power to ask for a raise or benefits in light of the pandemic, compared with only 21% of men.

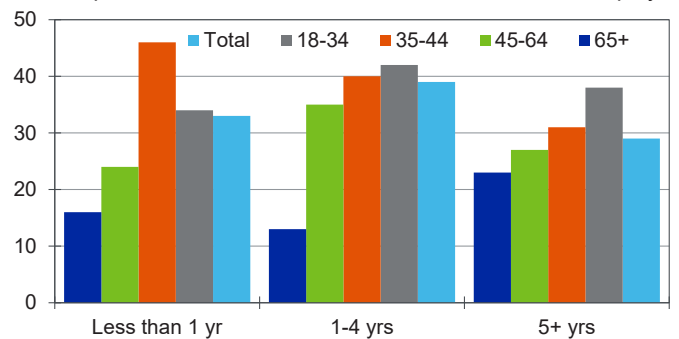
These findings provide another piece of the puzzle in understanding the impact of the pandemic on the gender pay gap. Previous research in this series showed that female parents were twice as likely as their male partners to reduce their hours to bear the burden of additional child-care responsibilities. Findings from this paper complement that prior study by highlighting another channel through which the pandemic exacerbates the gender pay gap. As women become less willing to ask for increases in pay or benefits, it becomes less likely that they will financially benefit to the same extent as men from future improvements in the economy.

In some cases, the pandemic reversed patterns in workers' bargaining power across demographic groups. Notably, a greater share of employed workers who experienced a loss of pay or income since the onset of the pandemic are less willing to ask for an increase in pay or benefits because of the coronavirus (31%) compared with those who have not experienced a loss of pay or income (18%). A similar story exists among workers who have been put on temporary leave or been laid off. Among workers who lost pay or income over the course of the pandemic, 39% asked for a raise from their employer prior to the pandemic, compared with only 29% of workers who did not experience a loss of pay or income during the pandemic.

These results add yet another dimension to the financial hardship described in the first installment in this series. For workers who

Chart 5: Tenure and Age Are Intertwined

% of respondents who have asked for raise from current employer



Sources: Morning Consult, Moody's Analytics

experienced a loss of pay or income since the onset of the pandemic and managed to either keep their jobs or find a new job, the experience of losing pay has reduced their willingness to ask for increases in pay or benefits. Losses of pay and income due to the pandemic disproportionately fell on low-income workers. As the economy recovers, these workers are less likely to experience wage gains, even as the demand for labor strengthens. In other words, it seems likely that the next business cycle will follow the same path of the prior business cycle, with wage pressures at the low end of the income spectrum remaining subdued well into the recovery.

The pandemic also widened the divide in bargaining power across the education spectrum and further separated highly educated workers from those with a bachelor's degree. Prior to the pandemic, there were few noticeable differences across the education spectrum in terms of workers asking for raises. Thirty-five percent of workers with a post-graduate degree had asked their employer for a raise prior to the onset of the pandemic, compared with 34% with bachelor's degrees and 32% with less than a college degree.

In light of the pandemic, 26% of respondents with a post-graduate degree are more willing to ask for an increase in pay or benefits, compared with 17% of respondents with less than a college degree and 16% with a bachelor's degree. This divide reflects the relative strength in the demand for highly educated workers over the course of the pandemic. The range in the unemployment rates among education levels consistently narrowed leading up to this recession and then dramatically widened in April (see Chart 6).

Although the spike in unemployment was temporary, it contributed to changes in workers' willingness to ask for increases in pay or benefits, which are likely to persist for the foreseeable future.

The essential economy pressed on...

The COVID-19 pandemic has brought a new industry classification into the public consciousness. Essential industries are those deemed necessary to maintain public health and safety and community well-being in times of crisis. During the pandemic, many states and localities have established some degree of restrictions on commercial and consumer activity, while allowing essential industries to continue business as usual. Survey respondents were asked whether their jobs were considered essential, which allowed us to tabulate shares of essential employment by industry (see Chart 7).

Government workers are more likely to be considered essential than private sector workers. Health services and transportation boast the highest shares of essential employment, while professional/business services and arts, entertainment and recreation have the lowest shares. Finally, 52% of surveyed adults are considered essential. This is remarkably similar to previous research done by Moody's Analytics, which

had pegged the share of U.S. employment in essential industries at 58%.⁸

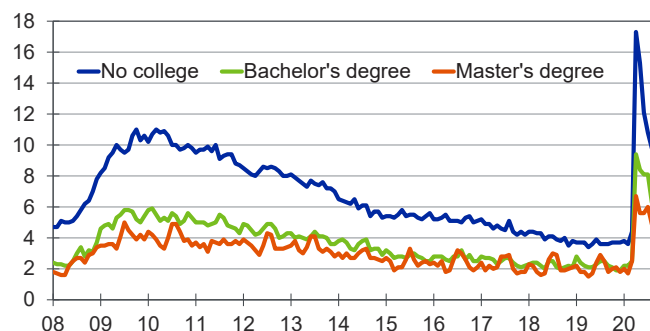
Workers age 18 to 44 are more likely to be considered essential than older age cohorts (see Chart 8). More than 55% of workers with less than a college degree consider themselves essential, compared with less than half of workers with a college degree or higher. Further, 53% of workers earning less than \$50,000 are considered essential, which is a marginally larger share than in higher-income groups. Finally, there was little variation across racial groups, and full-time workers were more likely to be essential than their part-time counterparts.

One of the most apparent disparities in perceived essential work is gender-based. Specifically, 55% of men consider themselves essential, compared with 48% of women. To better understand this gender gap, we delved into the share of respondents considered es-

⁸ M. Cosma and M. Colyar, "The Essential Economy," Moody's Analytics Economic View, April 8, 2020. <https://www.economy.com/economicview/analysis/379044>.

Chart 6: Unemployment Disparity Widens

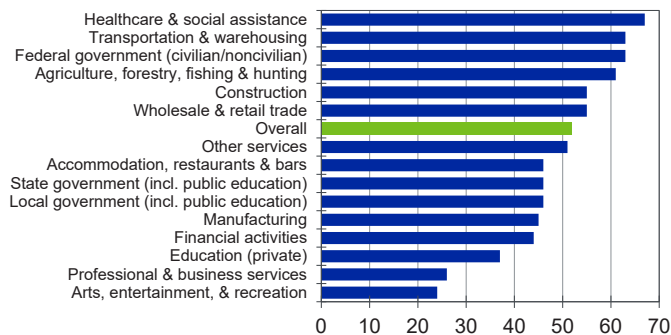
Unemployment rate by educational attainment, %



Sources: BLS, Morning Consult, Moody's Analytics

Chart 7: Are You Essential?

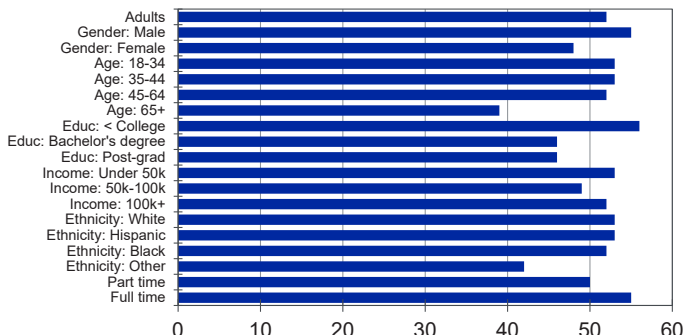
% of respondents who are considered essential



Sources: Morning Consult, Moody's Analytics

Chart 8: Demographics of Essential Work

% of respondents who are considered essential



Sources: Morning Consult, Moody's Analytics

sential by industry and by gender (see Chart 9). In healthcare and social assistance, men are only slightly more likely to be considered essential than women. In the remaining industries, men are significantly more likely to be considered essential than women, with the gap as large as 18 percentage points in federal and state government.

That the gender gap is the smallest in healthcare and social assistance is intuitive. Amid a pandemic, there is practically no debate that healthcare workers are on the front lines of this crisis and are essential, irrespective of gender. In other industries, though, workers are likely plagued by greater ambiguity as to what constitutes essential work, which seems to give way to the well-documented confidence gap by gender, whereby men tend to feel more self-assurance and less self-doubt in the workplace. For every 10-percentage point decline in the share of an industry that is essential, the gender gap in favor of men increases by about 4 percentage points.

...But did workers reap the rewards?

Among respondents considered essential, 28% report that their employer has raised their pay given the risk they were taking during the pandemic (see Chart 10). This share is 35% or more among those considered essential in wholesale and retail trade and financial activities, whereas it falls short of 25% in construction, professional/business services, and the federal government. What drives this variation across industries? To answer this, we considered three potential underlying factors: the comfort that essential workers have in asking employers for a pay

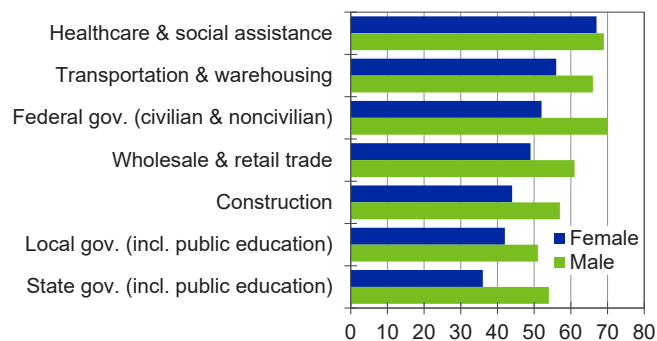
raise, the degree to which an industry is considered essential, and the industrywide unemployment rate.

One of our a priori was that the tighter the labor market in each industry, the more essential workers in that industry would report a pay raise. Indeed, we found an inverse relationship between an industry's unemployment rate and the share of essential workers who received a pay bump in that industry. We also posited that the more an industry is considered essential, the more prevalent pay raises will have been due to employers' acknowledgment of the health risk employees assume. In this case, the data did not support our a priori. We found a weak, negative association between the share of essential workers and the prevalence of pay raises among their ranks in a given industry. Finally, the strongest relationship we uncovered was between the comfort with which essential workers ask for a pay raise and the frequency of reported pay raises.

One of our survey questions asked respondents who self-identified as essential workers their level of comfort in asking for a pay raise given the risks they were taking during the pandemic. Among all respondents deemed essential, 39% report being comfortable asking for a raise. However, this percentage is as high as 64% in the arts, entertainment and recreation industry and as low as 26% in the federal government (see Chart 11). The comfort with which essential workers ask for a pay raise reflects a variety of underlying factors: the gender or racial mix, which will influence self-confidence in the workplace; the flexibility of career advancement within a company; and mon-

Chart 9: Stark Gender Gap

% of respondents who are considered essential



Sources: Morning Consult, Moody's Analytics

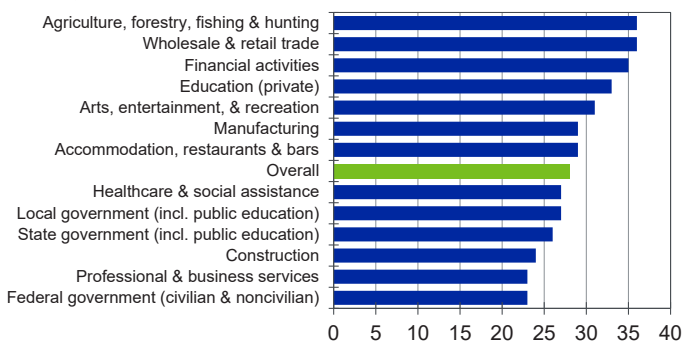
opsony power whereby the more concentrated a labor market, the more sway an employer will have in dictating the price of labor. Based on our survey results, we find that a 10-percentage point increase in the share of essential workers who are comfortable asking for a raise is associated with a 1.3-percentage point gain in the share of essential workers who got a raise during the pandemic.

In light of the pandemic and the high-risk role healthcare professionals are playing, it was hard not to notice that essential workers in healthcare and social assistance rank relatively low in both getting a pay raise and feeling comfortable in asking for one. The reason is likely twofold. First, women, who as previously discussed are less likely to ask for a raise than men, account for nearly 80% of the industry's employment. Second, prior economic research has found evidence of monopsony power among hospitals, in particular wage declines among skilled workers in the wake of hospital mergers.⁹ Because of the financial hardship the pandemic has wrought on the balance sheets of hospitals and physician practices, industry consolidation is expected to accelerate once the crisis subsides. As a result, the bargaining power of essential workers in the healthcare industry will likely end up worse off post-pandemic.

Survey responses also show the share of essential workers who have gotten a raise and are comfortable asking for one by demo-

Chart 10: Did Employer Raise Your Pay?

Among those who said they were essential, %

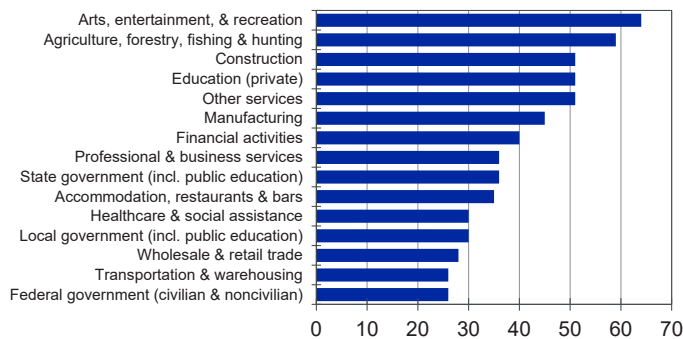


Sources: Morning Consult, Moody's Analytics

⁹ D. Staiger, J. Spetz and C. Phibbs, "Is There Monopsony in the Labor Market? Evidence From a Natural Experiment," *Journal of Labor Economics*, 2010; D. Sullivan, "Monopsony Power in the Market for Nurses," *The Journal of Law and Economics*, 1989; E. Prager and M. Schmitt, "Employer Consolidation and Wages: Evidence From Hospitals," *American Economic Review*, 2020.

Chart 11: How Easy Is It to Ask for Raise?

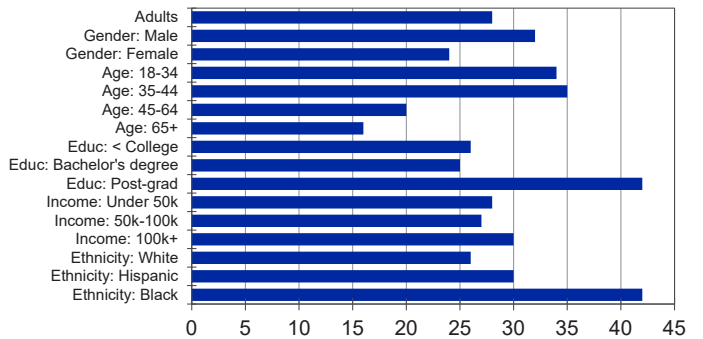
Among those who said they were essential, %



Sources: Morning Consult, Moody's Analytics

Chart 12: Did Employer Raise Your Pay?

Among those who said they were essential, %



Sources: Morning Consult, Moody's Analytics

graphic group (see Charts 12 and 13). Once again, there is a strong correlation between the two as we saw at the industry level. Men, younger workers, and the highly educated have enjoyed the most ease and success in asking for a raise. One surprise for which we do not have a readily available answer is that black essential workers reported significantly higher rates of success and comfort in asking for a raise than their white and Hispanic peers.

Policy implications

Pay gaps across gender, race, and other demographic cohorts should remain at the forefront of policy discussions as ongoing inequalities risk further disenfranchising particular groups of workers. The survey results revealed stark differences across genders in their willingness to engage in wage and benefit bargaining. Notably, women are significantly less likely than men to bargain with their employers for better pay or benefits. These differences contribute to pay gaps, which are wrong from a fairness perspective and are inefficient and unproductive from an economic perspective.

To address these disparities, policymakers can increase the transparency around expectations regarding workers' ability to engage in pay or benefit bargaining with their employers. Policies that allow workers from different demographic groups to understand how and when to bargain with their employers should help to combat the differences in workers' willingness to bargain with their employers.

The policy challenges associated with decreases in workers' bargaining power primarily relate to the issue of sluggish wage

growth and the distribution of corporate profits between companies and their workers. Solutions to this problem may be divided into those addressing the immediate needs and risks brought on by the pandemic from those dealing with long-term structural changes.

In the short run, policymakers have the ability to increase workers' willingness to engage in wage bargaining by delivering a rapid and robust economic recovery that increases the demand for labor for the foreseeable future. As evidenced in the survey results, workers who experience a loss of pay become less willing to ask for an increase in pay, likely because of the decrease in job security that they feel.

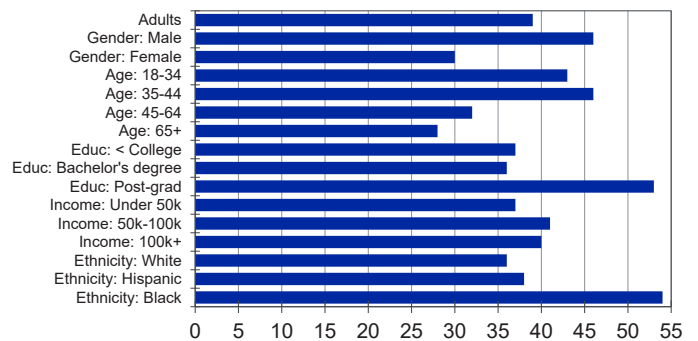
If policymakers achieve a strong recovery, a greater share of workers will feel secure enough in their jobs to bargain with their employers for better pay and benefits. Policy should address the challenges facing households' finances since they pose an immediate obstacle to a robust recovery. While the path of the recovery ultimately depends on the ability of the country to limit the spread of the virus and vaccinate the population, a further deterioration in households' finances jeopardizes the recovery in spending, which is likely to limit the demand for labor and further weaken workers' bargaining power.

The most direct policy approach for Congress and the White House to address these weaknesses in households' finances is through additional fiscal spending and stimulus, as described in detail in the first paper in this series. Given the acute need for critical occupations such as frontline healthcare workers combined with the financial pressure faced by hospitals that have been forced to restrict outpatient services, Congress may need to provide emergency funding including hazard pay to ensure continuity of care during the pandemic.

As the recovery progresses, fiscal and monetary policy needs to support the expansion for lower-income and less well-educated workers, which likely means maintaining accommodative policies for longer periods of time so that these workers enjoy the benefits of tight labor markets. In terms of monetary policy, this recommendation is consistent with the concept of letting the economy "run hot," so to speak.

Chart 13: How Easy Is It to Ask for Raise?

Among those who said they were essential, %



Sources: Morning Consult, Moody's Analytics

In terms of longer-term solutions, policymakers can play an important role as a referee to ensure that competition between workers and firms drives efficient wages and compensation. With a wave of business failures expected in the wake of the COVID-19 crisis, increased industry concentration is likely to increase firms' wage-setting power. Policymakers and regulators can combat the impact of the pandemic on workers' bargaining power by reassessing the impact of corporate mergers and acquisitions on firms' wage-setting power. While regulators typically focus on the potential negative impact to consum-

ers before approving a merger, greater attention could be paid to the potential labor market consequences.

Alternatively, the continuing decline in workers' bargaining power may lead to increases in union membership or the desire to join a union. An increased role for unions and collective bargaining may potentially counterbalance decreases in workers' individual bargaining power.

Education and economic policies also play a role in improving workers' wage bargaining power. Policymakers should enhance the skills and training of the American workforce so that a larger share of workers benefit from

the increases in bargaining power exhibited by higher-educated, higher-skilled workers. Because of technological change and globalization, employers in the U.S. face increased pressure to limit wage growth for low-skilled American workers. While workers need to adapt and be prepared to acquire new skills throughout their careers, effective policy can also help facilitate this process.

These issues related to workers' bargaining power are complex, and no single policy is likely to solve them. However, taken together, the policy priorities outlined in this paper directly address trends and disparities in workers' power.

About the Authors

John Leer is an economist for Morning Consult, leading the global data intelligence company's economic research efforts. He is an authority on the effects of consumer preferences and purchasing patterns on economic and business trends as well as labor market dynamics.

Prior to Morning Consult, Leer worked for Promontory Financial Group, offering strategic solutions to financial services firms on a range of matters including credit risk modeling and management, corporate governance, and compliance risk management.

He earned his bachelor's degree in economics and philosophy with honors from Georgetown University and his master's degree in economics and management studies (MEMS) from Humboldt University in Berlin. Leer's graduate research assessed the effects of fluctuations in housing prices and credit flows on the European Commission's measure of the non-accelerating wage rate of unemployment (NAWRU). His analysis has been cited in The New York Times, The Wall Street Journal, Reuters, The Washington Post and more.

Dante DeAntonio is a senior economist with Moody's Analytics. Dante specializes in the U.S. labor market and regional economics. He conducts labor market research on various topics in partnership with ADP Research Institute. Before joining Moody's Analytics, he worked as an economist in the Current Employment Statistics program at the Bureau of Labor Statistics. Dante is also an adjunct professor in the Economics and Finance Department at West Chester University of Pennsylvania. Previously, he was an adjunct in the Economics Department at Lehigh University. He holds a master's degree and PhD in economics from Lehigh University and a bachelor's degree in economics from Pennsylvania State University.

Bernard Yaros is an assistant director and economist at Moody's Analytics focused primarily on federal fiscal policy. He is responsible for maintaining the Moody's Analytics forecast models for federal government fiscal conditions and the 2020 presidential election, as well as providing real-time economic analysis on fiscal policy developments coming out of Capitol Hill. Besides fiscal policy, Bernard covers the District of Columbia and Puerto Rico and develops forecasts for Switzerland.

Bernard holds an MSc in international trade, finance and development from the Barcelona Graduate School of Economics and a BA in political economy from Williams College.

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Cristian deRitis is a senior director and deputy chief economist at Moody's Analytics, where he leads a team of economic analysts and develops econometric models for a wide variety of clients. His regular analysis and commentary on consumer credit, policy and the broader economy appear on the firm's Economic View web site and in other publications. He is regularly quoted in publications such as The Wall Street Journal for his views on the economy and consumer credit markets. Currently he is spearheading efforts to develop alternative sources of data to measure economic activity more accurately than traditional sources of data.

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Mark Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

Dr. Zandi is on the board of directors of MGIC, the nation's largest private mortgage insurance company, and is the lead director of Reinvestment Fund, one of the nation's largest community development financial institutions, which makes investments in underserved communities.

He is a trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public. Dr. Zandi frequently testifies before Congress and conducts regular briefings on the economy for corporate boards, trade associations, and policymakers at all levels. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360° Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by the New York Times as the "clearest guide" to the financial crisis.

Dr. Zandi earned his BS from the Wharton School at the University of Pennsylvania and his PhD at the University of Pennsylvania.

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