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Contents

I. Executive Summary

Technological change has led to new services through innovations such as the web, smartphones, and greatly increased computer processing power. This study[1] summarizes and synthesizes the existing research on the impact of technological innovation on the changing role of workers.[2]

Technology-driven firms have greatly expanded the economy and have offered products and services that have been embraced by consumers, while disrupting many traditional segments of the marketplace. Technology has affected, albeit in different ways, all types of business structures, whether brick-and-mortar, direct selling models, electronic platform models, or contracting agencies. Increased use of technology has been necessitated by the Covid-19 pandemic, which has made in-person customer interactions riskier or even illegal. These changes pressure traditional firms to modify their business models, including their approaches to retaining and managing their labor forces to remain viable. For example, traditional employers, as well as staffing agencies and direct sales entities, are increasingly competing with platform labor markets for scare talent, and so must rethink their strategies to be effective.

Continued growth of e-commerce and other technological developments have resulted in a reduction in traditional retail outlets and in the number of traditional retail jobs. In addition, the use of technology in the physical retail space is requiring retail workers to develop new skills and empower them to use these skills more effectively. While there are a few high-profile examples of firms making notable investments in innovative technologies (e.g., scheduling apps and on-demand staff platforms) and reskilling workers (e.g., Amazon, Walmart), it appears that many traditional retailers may not yet be fully invested in adapting a strategy to respond to new technology and worker preferences.

The "Direct Selling" business model, characterized by individuals providing a good or service to a customer away from a fixed retail location (e.g., Avon Products, Amway, Herbalife) has been affected by competition from online and big-box retailers. While the industry has invested in technologies (e.g., mobile POS, online orders, and social media tools), further thought on how to best compete on both products and workers may be needed given the changing competitive landscape and customer preferences, which appear to be moving away from one-on-one seller-customer relationships that are relatively labor intensive.

The staffing services industry has adopted technology, for example, to improve applicant tracking and billing and customer data analytics. The industry is attempting to collaborate with online job search engine competitors when possible, but that technology has made inroads into the traditional staffing model's territory and is increasingly impinging on the industry's traditional turf. Artificial intelligence (AI) and robotics will affect the industry as well.

[1] This study is by James Langenfeld, Senior Managing Director at Ankura Consulting and Chris Ring, Senior Director at Ankura Consulting. Biographical information on the authors can be found in Appendix 1.
[2] We understand that the U.S. Department of Labor released a "Notice of proposed rulemaking and request for comments" related to the Independent Contractor Status Under the Fair Labor Standards Act on September 25, 2020. Our work was largely performed prior to this release and this report does not address this release.

One important way firms have embraced technology is through use of the non-traditional labor force. The ability to tap into non-traditional workers can be an important part of improving business performance, such as by increasing speed to market, increasing organizational agility, improving overall financial performance, and allowing firms to compete in a digital world where increasingly relevant, highly-skilled talent is in short-supply.

A substantial number of people are turning to alternative work (broadly defined) for secondary income (54 million to 68 million individuals according to McKinsey in 2016). Workers engaged in alternative work are a heterogeneous group. Those who engage in full-time alternative work for their primary income source make up around about 10% of the total workforce, which has not increased dramatically over the past decade. However, research indicates a large portion of the alternative work force is intentionally engaged on a part-time basis, with many having another primary job that often includes benefits. These workers highly value flexible scheduling to coordinate with their other commitments, and do not view a lack of benefits as an important issue. Many of the new work models are lowering barriers to entry and increasing opportunities for workers to earn additional income, while enhancing flexibility in scheduling, volume of work, and location. The growth of technology-empowered independent work has stimulated significant economic activity and contributions to economic growth.

Some research also identifies that a smaller portion of the alternative workforce may place less priority on flexibility and high value on obtaining workplace benefits and protections. This research has identified concerns that non-traditional work has harmed workers by diminishing protections and lowering wages. These concerns are unlikely to subside soon, and illustrate the need for stakeholders to embrace an approach that benefits workers as well as responds to the changing conditions in the market.

On-Demand Economy (ODE) jobs have been an important part of the response to technology-driven changes in the economy. Workers whose primary source of income is from ODE jobs are estimated as 1% of the workforce, but, as noted above, a larger and increasing number supplement other income through ODE work. Studies have found that ODE jobs provide workers the opportunity to increase their primary income through a second income source. Research also finds that many ODE workers have experienced a downturn in their primary income source or other financial volatility before turning to ODE work. This suggests that ODE work may serve as a valuable income-smoothing tool to help weather negative earnings shocks, serving as a preferable alternative to taking on high-cost credit, becoming delinquent on existing credit, or constraining spending.

The current approach to classification of workers as employees or independent contractors consists of a patchwork of evolving laws, regulations, and classification enforcement regimes. These different regulations and laws can make appropriate worker classification challenging, especially as it relates to the alternative workforce. Some states, such as California, have recently passed new laws to provide a basis for determining whether a worker should be classified as an independent contractor or an employee. Other governmental agencies, such as the city of New York, created regulations that attempt to protect worker rights. These actions do not appear to fully account for the heterogeneity in worker preferences, as highlighted by the many exceptions to these rules. These laws and regulations have also contributed to controversy and lawsuits. In 2019, four of the top 10 legal settlements in wage and hour cases pertained to worker mis-classification claims.

Several studies have examined how other countries are addressing flexible work arrangements. In 2019, the EU established basic rights for all workers (including ODE workers), but these rights are fairly minimal. The case of the courier company Hermes in the U.K., in which a "self-employed plus" status was created that accounts for the heterogeneous preferences in flexibility across the work force, stands out as a compromise to the challenges facing employers and workers. Legislation in Canada also reflects a compromise position, where a third category of worker was created, the "dependent contractor," although it offers only limited worker protections overall. In 2019, authorities in India proposed legislation that recognizes electronic platform workers as entitled to certain benefits such as life and disability coverage, and health and maternity benefits. Other countries, such as Spain and Italy, have also created additional worker categories, though these rules appear to have been written such that they were subject to significant employer arbitrage opportunities, and therefore have not been impactful as intended.

In sum, technology is affecting business models, industries, and their workforces in different ways. All models and industries will need to adapt to new technologies or risk being left behind. Consumer welfare gains ushered in by technological changes have been studied extensively, as have the effects of these changes on businesses and workers. The variety of labor laws and regulatory regimes often treat key issues differently, and do not appear to adequately meet the needs of business and workers resulting from changes in the economy.

II. Analysis of the Impact of New Technology and the Alternative Workforce

The development of new technologies has helped create new services through innovations such as the web, smart phones, and greatly increased computer processing power. Research shows technology-driven firms have added greatly to the growth of the economy and have been embraced by consumers. Firms such as Amazon, Uber, Lyft, Google, Apple, and Facebook have created new products and services that did not exist 10 to 20 years ago. These technological advancements have reduced the barriers to entry in various industries by providing customers with direct access to new sources of products and services. This change in turn is putting pressure on more traditional firms to modify their business models, including their approaches to retaining and managing their labor force, in order to compete and remain viable.

Technology has affected all types of operational business structures, whether brick-and-mortar, direct selling models, electronic platform models, or contracting agency forms of business in different ways, with each business model confronting unique issues.

For example, one of the avenues that traditional firms have been embracing, in part to address competitive issues arising from technological change, is the use of non-traditional forms of labor,[3] although most companies are still investigating the best ways to manage and integrate an extended workforce into their operations.[4] One recent survey of global corporations found that 44% of their labor spending is on their external workforce.[5] Firms that engage the alternative workforce find it to be a driver of competitive advantage in an increasingly technology-driven marketplace. Firms claim that merely controlling costs is no longer the principal driver for their increasing reliance on an alternative workforce. Rather, the ability to tap into non-traditional workers is now seen as essential to improving business performance, such as increasing speed to market, increasing organizational agility, improving overall financial performance, and allowing firms to compete in a digital world where increasingly relevant, highly-skilled talent is in short-supply.[6]

Workers engaged in alternative work are a heterogeneous group. A significant number of alternative workers are intentionally engaged in alternative work on a part-time basis, many having another job they regard as their primary source of income that often includes benefits.[7] These workers place a high value on the ability to flexibly schedule work (see Table 1 at end of this report) and do not clearly view the lack of benefits as an important issue for them. In contrast, a smaller subset of the alternative workforce may place less priority on flexibility, but a high value on obtaining workplace protections. Many of the new work models are providing significantly increased opportunities for workers to earn additional income. These enhanced opportunities often include flexibility in scheduling and volume of work, as well as location. In addition, these opportunities often have low barriers to entry, including quick and easy application processes offering a marketplace to earn money through the use of workers' own tools and equipment.

Some researchers have identified concerns about non-traditional workers arising in part from these technological changes. They argue there is fracturing of traditional business structures that have fundamentally altered the nature of employment and work relationship—largely at the expense of workers (e.g., diminished worker protections and stagnant earnings).[8] These

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[3] As I discuss later, considerable debate exists regarding accurate measures of the size and growth of the alternative workforce. See, Section III.A.
[4] External Workforce Insights 2018, SAP-Fieldglass in collaboration with Oxford Economics. The 2018 study is based on a survey 800 senior executives, including chief procurement officers and chief HR officers in 16 industries in more than a dozen countries. See also, Korn Ferry, "HR Exec Survey: Percentage of Contingent, or 'Gig Economy' Professionals In Companies Growing; HR Leaders Say That's a Good Thing," Korn Ferry, September 5, 2018. https://ir.kornferry.com/node/15386/pdf (hereafter, Korn Ferry 2018).
[5] Small businesses also appear to be increasing their use of external talent relative to employees. See, Paychex, Inc. "New Paychex Data Shows Independent Contractor Growth Outpaces Employee Hiring in Small Businesses," PR Newswire, January 9, 2019. https://www.prnewswire.com/news-releases/new-paychex-data-shows-independent-contractor-growth-outpaces-employee-hiring-in-small-businesses-300775712.html; see also, Brown, C, et al., "Independent Contractors in the U.S.: New Trends from 15 Years of Administrative Tax Data," 2019.
[6] For example, skills in machine learning/artificial intelligence, cyber-security, automation, data analytics. See, "External Workforce Insights 2018: The Forces Reshaping How Work Gets Done," SAP-Fieldglass in collaboration with Oxford Economics, 2018, pp. 4, 13; see also, Korn Ferry (2018).
[7] Or for other reasons, such as being a student, a caretaker, or retired, do not want a rigid employment situation.
[8] See, for example, Bogliacino, F., et al., "Quantity and quality of work in the platform economy," Global Labor Organization (GLO) Discussion Paper, No. 420, 2019, (hereafter, Bogliacino, et al. 2019).

concerns are not likely to subside and illustrate the need for stakeholders to embrace a new approach going forward.

A. The On-Demand Economy (ODE)

Technological change—from delivery and logistics, to tourism, advertisements and personal care—in the form of electronic labor market platforms (e.g., Uber, Lyft, Postmates, TaskRabbit, Moonlighting, etc.) has completely disrupted many segments of the marketplace. Workers offering labor services on these platforms are often referred to as giggers or taskers. In addition to successfully challenging traditional business models and greatly expanded commerce, this online demand economy ("ODE") has also provided new opportunities for workers. However, the various worker platforms that exist are themselves highly differentiated and may be classified according to the degree of control exerted over workers, the geographical location of the task, and the need for physical interaction between workers and downstream customers. Researchers have made inroads on our understanding of ODE workers, their characteristics, and motivation, and that research is described below.

Those who engage in full-time alternative work have not increased dramatically over the past decade. Government surveys and statistics, accounting for alternative workers if the non-traditional source is the sole or primary source of income, estimated the alternative workforce totaled about 15.5 million individuals, or about 10% of total employed.[9] ODE workers are a much smaller subset of the alternative workforce, with estimates ranging between 0.5% to 1.5% of the workforce during the 2015 to 2018 timeframe (also defined as sole or primary source of income).[10] However, a substantial number of people appear to be turning to alternative work as a secondary source of income. In 2016, McKinsey estimated that as many as 54 million to 68 million individuals earned income from alternative sources (see Table 2 at the end of this report for a summary of research estimates).[11] The increase in alternative work has not been at the expense of workers' primary employment, are more often workers' second jobs because their principal occupation pays too little, or they have needed a bridge to new work.

[9] See, "Contingent and Alternative Employment Arrangements Summary," U.S. Bureau of Labor Statistics, May 2017, https://www.bls.gov/news.release/conemp.nr0.htm (hereafter, BLS 2017).
An expansive definition of the alternative workforce (to include independent contractors, on-call workers, temporary help agency workers and contract workers) created by the BLS (limited to alternative work where it is the main or primary source of income) finds that alternative work arrangements have not grown between 2005-2017. However, other researchers believe the BLS survey does not fully capture the best estimate of the size of the primary workforce, and BLS is revising its questionnaire. See, for example, Brown Barnes, Cindy S. and Oliver M. Richard, "Contingent Workforce: BLS is Reassessing Measurement of Nontraditional Workers," U.S. Government Accountability Office, January 29, 2019; Katz, Lawrence and Alan Krueger, "Understanding Trends in Alternative Work Arrangements in the United States," *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5(5) (December 2019): 132–46, (hereafter, Katz and Krueger (2019)).
[10] Katz and Krueger (2019), pp. 132–46.
[11] Many studies note the lack of a uniform definition of "alternative workforce" in the research across the various categories of alternative workers and statistics cited. Manyika, James, et al., "Independent Work: Choice, Necessity, and the Gig Economy," McKinsey & Company, October 2016, p. 3.

Academic researchers have sought to understand the primary factors that drive workers to participate in alternative work arrangements, particularly opportunities in the ODE. Several studies have found that a significant fraction of ODE workers faced a downturn in their primary income source or experienced other financial volatility before turning to the ODE workplace. Other research has found a statistically significant increase in the volume of residents actively working at an online platform when the unemployment rate increases in their region. This research suggests that ODE work may serve as a valuable income-smoothing source for participants to help weather negative earnings shocks, serving as a preferable alternative to taking on high-cost credit, becoming delinquent on existing credit, or constraining spending. These research findings are further indications that a significant number of workers participating in the alternative workforce are often doing so due to the inadequacy of primary earnings sources.

Some research, although not clearly indicative of many types of alternative workforce participants, indicates that earnings of alternative workers may be lower than if they had performed that same work inside the firm as employees.[12] These differentials have been found in studies on workers at staffing agencies, as well as ODE workers such as delivery and tasks workers, separate and apart from differences in benefit packages.[13]

Technological change, coupled with shifting consumer preferences, has also had a significant transformative effect on the traditional brick-and-mortar retail industry,[14] and the effect has been far-reaching. E-commerce sales as a share of total retail sales have been growing steadily, doubling from 4.2 percent in 2010 to 11.2 percent in Q3-2019. Traditional brick-and-mortar retail continues account for over 85% of retail sales, but it typically requires "more than three and a half times as many workers as the same amount of sales transacted online."[15] It is well-documented that continued growth of e-commerce and other technological developments have resulted in a reduction in traditional retail outlets and in the number of traditional retail jobs, with a continuing shift in what retail workers are being asked to do.

In addition, the use of technology in the physical retail space is requiring retail workers to develop new skills and empower them to use these skills more effectively. Workers will spend less time scanning products and stocking shelves, and more time assisting customers, increasing service levels, and providing an experience that is impossible to duplicate online. For example, an array of technology (e.g., mobile point of service ("POS"), advanced inventory management systems, and scheduling apps) enables workers to be in front of the customer, providing valuable

[12] For example, some studies have found that crowdsource workers (specifically looking at those engaged with micro-tasks, such as work offered on the platform MTurk) earn significantly less than their employee counterparts and that work requesters (i.e., firms) retain the majority of surplus from gig work. In addition, there is an ongoing debate about average driver wages in the ride-sharing space, and these studies generally suggest the wage rates after expenses are quite low on average. See, discussion in Section VIII.

[13] See, for example, discussion in Section VI. Also, Dube, Arindrajit and Ethan Kaplan, "Does Outsourcing Reduce Wages in the Low-Wage Service Occupations? Evidence from Janitors and Guards," International Labor Relations Review, Vol. 63, No. 2 (January 2010), and David Weil and David S. Fortney, "Are Companies Too Reliant on Independent Contractors?" The Society for Human Resource Management, November 27, 2019.

[14] For information on how BLS defines the retail sector, see Section III.D.

[15] The Aspen Institute, "Industry at a Glance: The Future of Retail," November 27, 2017, https://www.aspeninstitute.org/blog-posts/industry-at-a-glance-the-future-of-retail/.

services expected to increase the odds of a sale. Accordingly, the role of retail workers is shifting, requiring new skills that align with retailers' technology strategy. Workers' changing roles require training and reskilling investments, especially in a tight labor market where candidates with the right skills are not widely available. While there are a few high profile examples of firms making notable investments in innovative technology solutions and reskilling existing workers to keep up with change (e.g., Amazon, Walmart),[16] it appears that many traditional retailers may not be fully invested in adapting a strategy to respond to the new technology and worker preferences, or are content to take a wait-and-see approach.[17]

The "Direct Selling" business model, characterized by individuals providing a product or service to a customer away from a fixed retail location (e.g., Avon Products, Amway, Herbalife) has been under threat for some time, in large part affected by strong competition from online and big-box retailers.[18] The industry has made some investments in technologies (e.g, mobile POS, online orders, and social media tools for marketing),[19] but these activities may not be sufficient to promote strong growth in light of the changing competitive landscape and customer preferences, which are generally moving away from one-on-one seller-customer relationship that are relatively labor intensive. In addition, the direct selling industry has had some difficulty recruiting and retaining sales consultants in the strong U.S. economy as workers have many opportunities for full-time and part-time work, and this is likely to limit the industry's growth as well.

The staffing services industry has seen a significant adoption of technology and innovative solutions, especially as it pertains to tools that improve applicant tracking and billing and customer data analytics. The industry is attempting to collaborate with online job search engine competitors rather than work against them when possible, but that technology has made inroads into traditional staffing models. The emergence of AI and robotics is still an unknown, as the industry has continued to grow in the current robust economic environment and tight labor market.

Regardless of business model, many firms are beginning to embrace the use of emerging technologies that seek to enhance the worker experience, in an effort to be more competitive in tight labor markets.[20]

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[16] Cullen, Terri. "Amazon Plans to Spend $700 Million to Retrain a Third of Its US Workforce in New Skills," CNBC, July 11, 2019, www.cnbc.com/2019/07/11/amazon-plans-to-spend-700-million-to-retrain-a-third-of-its-workforce-in-new-skills-wsj.html.

[17] Accenture, "Retail People Power: How the Workforce Can Elevate Customre Experiences and Drive Growth," October 23, 2018, https://www.accenture.com/us-en/insights/retail/retail-people-power; Grocery Dive, "As automation grows, grocers need an employee game plan," October 22, 2019, https://www.grocerydive.com/news/as-automation-grows-grocers-need-an-employee-game-plan/564893/.

[18] "Providers are referred to as independent consultants, distributors or representatives who conduct sales via home parties, workplaces, trucks, or door-to-door." Spitzer, Dan, "Out of stock: The threat of e-commerce is expected to stifle industry revenue growth, Direct Selling Companies in the U.S.," IBISWorld Industry Report 45439, December 2019, (hereafter, Spitzer 2019). See, discussion in Section III.E.

[19] See, for example, Dunn & Bradstreet, Direct Selling Industry Profile, July 29, 2019.

[20] For example, technology (apps) have been employed among some top retailers that allow workers to do such things as change or swap shifts using a smart phone app, and collect wages earned sooner than they otherwise would (for a fee). See, for example, discussion in Section III.D.iii and V.D.

B. The Regulatory and Legal Environment

The current approach to classification of workers as employees or independent contractors consists of a patchwork of laws, regulations, and classification enforcement regimes. For example, the "Common Law Test" is a guide used by the IRS where the standard Common Law test will find that a worker is "likely an employee if the employer has control over what work is to be done and how to" perform it.[21] Meanwhile, the Fair Labor Standards Act ("FLSA") uses an Economic Realities Test to determine whether a worker is a contractor or an employee by determining, as a matter of economic reality, if "the worker is reliant on the hiring party to earn a living (employee) or is self-reliant and independent (contractor). If the worker is an employee under this test, then the federal minimum wage and overtime rules apply, subject to any exemptions."[22] States vary in their independent contractor legal tests as well—often some variation of the ABC test[23]—with some states caring about just "A," others caring about "AC," and yet others caring about ABC with special emphasis on one of the prongs. California recently passed the high-profile California Assembly Bill 5 (A.B. 5), which codified a three-part test for whether a worker should be categorized as an independent contractor, with the aim of ensuring a higher degree of worker protections, including higher wages.[24] New York City has imposed minimum earnings standards for drivers,[25] Seattle is poised to follow suit,[26] and Los Angeles is studying minimum earnings standards.[27] For their part, Uber and Lyft have apparently offered to

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[21] See, Sure Payroll, "Common Law Employee Test," https://www.surepayroll.com/resources/terminology/payroll/common-law-employee-test; "Independent Contractor (Self-Employed) or Employee?" Internal Revenue Service, 26 Sept. 2020, www.irs.gov/businesses/small-businesses-self-employed/independent-contractor-self-employed-or-employee; Social Security, "Course: Applying Common Law Control Test for Employer/Employee Relationships," www.ssa.gov/section218training/advanced_course_10.htm.

[22] "This test is also used to determine who is an employee under the Family and Medical Leave Act (FMLA)." Todd Lebowitz, "What Is the Economic Realities Test?" January 10, 2017, https://whoismyemployee.com/2017/01/10/what-is-the-economic-realities-test/. The so called "Economic Realities Test" is a multi-factor test, with no single factor controlling, and the ultimate determination is based upon the totality of the circumstances. "Fact Sheet 13: Employment Relationship Under the Fair Labor Standards Act (FLSA)," U.S. Department of Labor, July 2008, https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/whdfs13.pdf.

[23] A= Freedom from Control; B=Outside usual course of business; C=customarily engaged and independently established. See, for example, Jean Murray, "What is the ABC Test? Definition & Examples of ABC Test," The Balance Small Business, August 2, 2020, https://www.thebalancesmb.com/what-is-the-abc-test-for-independent-contractors-4586615.

[24] Justin Sullivan, "The ultimate guide to navigating AB5, the California law Uber and Lyft are fighting with a November ballot measure, as a freelancer or business owner," Business Insider, August 27, 2020, https://www.businessinsider.com/california-assembly-bill-5-companies-contractors-freelancers-navigate-law-guide

[25] Sara O'Brien, "Uber, Lyft prices go up in NYC as new driver minimum wage law takes effect," CNN Business, February 1, 2019, https://www.cnn.com/2019/02/01/tech/uber-nyc-rates/index.html.

[26] Heidi Groover, "Seattle City Council OKs new 57-cent tax on Uber, Lyft rides," The Seattle Times, November 25, 2019, https://www.seattletimes.com/seattle-news/transportation/seattle-city-council-oks-new-57-cent-tax-on-uber-lyft-rides/, (hereafter Groover 2019).

[27] Laura Nelson, "Should Uber and Lyft drivers earn $30 per hour? Los Angeles will study a minimum wage," Los Angeles Times, October 16, 2019, https://www.latimes.com/california/story/2019-10-16/uber-lyft-drivers-pay-minimum-wage-los-angeles-ab5, (hereafter, Nelson 2019).

implement minimum earnings standards in California as part of their negotiations over A.B. 5 rules.[28]

These different regulations and laws can make appropriate worker classification challenging, especially as it relates to the alternative workforce. These differences have contributed to controversy and lawsuits. In 2019, four of the top 10 legal settlements in wage and hour cases pertained to worker mis-classification claims.[29] Moreover, a number of lawsuits have been brought by associations of workers seeking temporary restraining orders (TROs) against implementation of A.B. 5. These actions to counter A.B. 5, as well as some of the exclusions of specific groups of workers implemented as part of the law, are consistent with the documented heterogeneity of participants in the alternative workforce and with many workers desiring the flexibility that independent contractor status permits. Other current and prospective legislation directed towards regulating worker rights and their potential impact on at least certain groups of workers in the alternative workforce is discussed below in Section IV.

C. Experience Outside the U.S.

Several studies have examined how other countries are addressing flexible work arrangements.[30] In 2019, the EU established certain basic rights for all workers (including ODE workers), however these rights are fairly minimal.

The case of the courier company Hermes in the U.K. stands out as a compromise to the challenges facing employers and workers under many current legal regimes. After a string of losses in court over classification of workers, Hermes struck a deal with the UK's GMB delivery drivers union permitting drivers to voluntarily opt in to a "self-employed plus" status, granting them a minimum wage, up to 28 days of paid leave, and other guaranteed rights. In exchange, drivers who opt in can no longer choose their routes. Those who do not opt in can continue as freelancers with more flexibility but without the same benefits.

Model legislation in Canada also stands out as a compromise position, where a third category of worker was created, the "dependent contractor." This legislation turns on the nature of *exclusivity* of the relationship between the parties. <u>If a worker is categorized as a dependent</u>

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[28] Graham Rapier, "Uber has proposed a new minimum wage for drivers after years of protests, but it comes with a catch," Business Insider, August 29, 2019, https://www.businessinsider.com/uber-minimum-wage-proposal-for-drivers-california-ab5-2019-8, (hereafter, Rapier 2019); Faiz Siddiqui, "Uber and Lyft are floating a $21 minimum wage. Critics say it's closer to $15," The Washington Post, August 30, 2019, https://www.washingtonpost.com/technology/2019/08/30/uber-lyft-are-floating-minimum-wage-critics-say-its-closer/ (hereafter Siddiqui 2019).

[29] Three of the 4 cases were filed by delivery or transportation drivers in the platform economy, while the fourth case was filed by a group of product distributors. Seyfarth Shaw, Annual Workplace Class Action Litigation Report: 2020 Edition.

[30] See discussion in Section IX.

contractor, he is entitled to notice[31] and termination pay that is on par with notice period and termination pay granted to employees. Canadian courts have found that "substantially more than 50% of billings" is a rough benchmark to surpass for economic dependency.

A third intermediate category of worker established in Spain and Italy has not had a significant impact because employers were incentivized (and able) to arbitrage the system, thereby leading to a reduction in worker protections, rather than an increase. For example, in Italy, the third worker category sparked undesirable effects when businesses increasingly began to hire workers under the *lavoratore parasubordinato* category, which provided a lower level of worker protections than those afforded employees if the employer could demonstrate the relationship met specified criteria. Most of these quasi-subordinate workers would all previously have been classified as employees.

In 2019, authorities in India have proposed legislation that recognizes electronic platform workers as entitled to certain benefits such as life and disability coverage, and health and maternity benefits.

Given the experiences of other countries, some researchers propose that instead of creating a new category or worker, one solution that works within the current U.S. framework is to change the default presumptions regarding the two categories that exist. For example, above minimum threshold of hours worked or income earned, the default rule would be an employment relationship for most gig workers, except those that may fit into a specified 'safe harbor' group, such as *for* de minimis *amateurs or volunteers*.

In summary, while technology is affecting various business models, industries, and their workforces in different ways, creating winners and losers, all models and industries need to embrace and adapt new technologies or risk being left behind. The societal gains ushered in by technological change have been studied extensively, including some of the impacts on workers. Labor laws and regulatory regimes, however, have been slower to address the reforms required in a modern economy.

III. The Alternative Workforce and the Impact of Technology

A. The Alternative Workforce

According to the BLS May 2017 Contingent Worker Supplement Survey of Contingent and Alternative Employment Arrangements,[32] workers who identified as holding an alternative

[31] "'When an employee's job is over, the amount of notice can be set by contract or governed by common law in each province.' Courts establish common law through their decisions. … For example, minimum notice in Ontario is eight weeks after eight years' service, but in Alberta, it is eight weeks after 10 years' service. … 'In addition, the Ontario statute requires minimum severance pay in addition to minimum notice, whereas the other provinces do not require minimum severance pay.'" Catherine Skrzypinski, "To Fire Employees in Canada, You Need a Reason and Notice," the Society for Human Resource Management, May 20, 2019, https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/global-canada-termination-notice.aspx.

[32] BLS 2017.

employment arrangement are defined as an individual's sole or main job (job in which they usually work the most hours). That is, only in the instances where ODE work constitutes a worker's primary source of labor market income are these workers included in the BLS definition and categories of alternative workforce, which fall into the following categories[33]:

- 10.6 million independent contractors (6.9 percent of total employment),
- 2.6 million on-call workers (1.7 percent of total employment),
- 1.4 million temporary help agency workers (0.9 percent of total employment), and
- 933,000 workers provided by contract firms (0.6 percent of total employment)
- Compared with February 2005 (the last time the BLS survey was conducted), "the proportion of the employed who were independent contractors was lower in May 2017, while the proportions employed in the other three alternative arrangements were little different," suggesting that non-traditional work categories may not be a growing source of primary employment.[34]

Other research by Collins and his collaborators report that the share of the workforce earning income reported on I.R.S. Form 1099 (the typical way that independent contractors are paid), rose by one percentage point between 2007 and 2016. Almost all of this increase was due to the rise of online platforms.[35] Moreover, the authors determined that the growth was "driven by individuals whose primary annual income derives from traditional jobs and who supplement that income with platform-mediated work."[36]

While these estimates are believed to be low, the current available research indicates that the growth and current level of alternative workers, whose alternative work is the primary source or income, is not as high as other survey sources suggest. However, these figures underestimate the number of alternative workers, since research finds most alternative workers have other primary work.

In addition, the BLS 2017 survey results further estimate that 3.8% of workers--5.9 million persons--held contingent jobs.[37] Contingent workers are expect their work to be temporary. Based on three different measures, contingent workers accounted for 1.3% to 3.8% of total

[33] To the extent that online demand economy (ODE) labor is a secondary "job," these jobs would not be included in the summary.
[34] BLS 2017; Katz and Krueger (who attempted to mimic the BLS CWS approach in their 2016 paper, albeit imperfectly, and later revised their estimates downward), suggest that a 1 to 2 percentage point increase in the share of alternative work from 2005 to 2015 is more likely. They further estimate that platform work is only between 0.5% to 1.5% of the workforce between 2015-2017. The authors discuss the sources of discrepancies between their 2015 survey and the BLS survey results 2 years later. See Katz and Krueger (2019), pp. 132–46.
[35] Collins et. al., "Is Gig Work Replacing Traditional Employment? Evidence from Two Decades of Tax Returns," IRS working paper, March 25, 2019; See also, Neil Irwin, "Maybe We're Not All Going to Be Gig Economy Workers After All," New York Times, Sept. 15, 2019 (hereafter, Collins et al., *(2019))*.
[36] Collins et al., *2019*, p. 3.
[37] The BLS measures contingent work and alternative employment arrangements separately. Some, but not all, workers are both contingent and in an alternative arrangement. See, BLS 2017.

employment in May 2017. However, in the February 2005 survey, all three measures were higher, ranging from 1.8% to 4.1% of employment.[38]

- 79% of independent contractors preferred their arrangement over a traditional job, while only 44% of on-call workers and 39% of temporary help agency workers preferred their work arrangement.[39]
- More than half (55%) of contingent workers would have preferred a permanent job.[40]

Non-governmental survey research finds a range of U.S. workers who identify as independent earners, including primary and supplemental sources of income. For example, in its 2019 Report on the State of Independence in America, MBO Partners estimated that the total number of independent workers in the U.S. was approximately 41.1 million, down from 41.8 million in 2018, based on its annual online survey conducted in March 2019.[41] Table 2 presents recent estimates of independent workers from other non-governmental sources found in the literature.

Survey research on the alterative workforce also attempts to capture the sentiments of participants in the alternative workforce, including worker characteristics, motivation for participation, and preferences. However, often these studies do not clearly delineate which characteristics apply to each type of specific independent worker (e.g., part-time vs. full-time; independent business contractor vs. freelancers vs. temporary staff worker vs. ODE worker); rather many studies tend to blur these distinctions across workers, even though heterogeneity clearly exists.

MBO Partners found that about 81% of full-time independents in 2019 were pursuing the path of independent contractor status by choice, up from 66% in 2012.[42] MBO Partners, however, define full-time independents as those working more than 15 hours each week, and by doing so, are arguably capturing the preferences of many part-timers as well.[43]

B. The Impact of New Technologies on the Workforce

The development of new technologies has helped create new services through innovations such as the web, smart phones, and greatly increased computer processing power. Largely technology-driven firms have added greatly to the growth of the economy and have been embraced by consumers. Firms such as Amazon, Uber, Lyft, Google, Apple, and Facebook have created new products and services that did not exist 10 to 20 years ago. These technological advancements have reduced the barriers to entry in various industries by providing customers with direct access to new sources of products and services. This change in turn is putting

[38] BLS 2017.
[39] BLS 2017; and Katz and Krueger (2019), pp. 132–46.
[40] BLS 2017. For more information on the demographics of contingent workers, see also, BLS, "A Look at Contingent Workers," September 2018, https://www.bls.gov/spotlight/2018/contingent-workers/home.htm.
[41] The State of Independence in America, MBO Partners, 2019, p. 2.
[42] The State of Independence in America, MBO Partners, 2019, p. 9.
[43] The State of Independence in America, MBO Partners, 2019, p. 9.

pressure on more traditional firms to modify their business models. In part, traditional firms are increasingly modifying their relationships with their workforce and this includes turning to non-traditional workers to increase organizational agility.

The multitude of traditionally brick-and-mortar stores that are in bankruptcy due to Covid-19 and competition from platform and non-platform web-based companies, coupled with changing consumer tastes and practices clearly signals that the impact of technology is working its way across the whole economy, and all firms need to be able to flexibly respond to a dynamic online sector undergoing rapid changes. One way to do that is to apply new technologies to best provide the goods and services demanded by consumers, and in some cases, to adapt to the changing preferences of many workers to let them have more control over their work and the hours they choose to work. Clearly, any changes in the relationship between workers and firms need to benefit both.

The growing recognition by firms across industries of the impact that new technologies have on both their customer base and their labor pool necessitates industry to identify a creative path to remain viable in the 21st Century. The use of technology has been further necessitated by the Covid-19 pandemic, which has made in-person customer interactions riskier or even illegal.

C. The ODE Workforce (e.g., Ride-for-Hire, Delivery, and Other Freelancing Work)

Today, a customer is likely to get their ride using an app on their phone. Across the world, thousands of digitally hired workers use their cars, bikes, or motorcycles to deliver any sort of products. Businesses, such as hotels, outsource many of their standard tasks through platforms or staffing agencies and even highly skilled freelancers look for their clients online. Platforms have become the disruptive players in almost any sector. However, ODE has become a conundrum for the standard toolkit of industrial regulation, with controversies growing with respect to worker rights, as well as other externalities (e.g., ride-sharing industry's contribution to congestion).

For example, the emergence of the ridesharing industry fueled by platform technology has completely disrupted the traditional ride-for-hire industry (taxi, livery, etc). With business models that can dynamically adapt to changing supply and demand conditions and reduce barriers to entry for potential drivers, ridesharing companies have outperformed traditional ride-for-hire companies and now dwarf them in the amount of commerce they generate. For example, by 2017, the number of daily trips scheduled via ridesharing companies was 12 times the number of taxi trips, and represented 15% of all intra-San Francisco vehicle trips.[44] In Seattle, a survey showed that 3.5 times more people used Uber and Lyft than taxis.[45] Data show that by the end of 2019, and despite regulation capping the number of rideshare vehicles on the road, trips

[44] San Francisco Country Transportation Authority, "TNCs Today," 2017, https://www.sfcta.org/projects/tncs-today.
[45] Gene Balk, "Uber, Lyft used by 3.5 times more people than taxis in Seattle, new data show," *Seattle Times*, April 26, 2018, https://www.seattletimes.com/seattle-news/data/uber-lyft-used-by-3-5-times-more-people-than-taxis-in-seattle-new-data-show/.

scheduled on ride-hailing apps were almost triple the number of taxi trips scheduled in New York City.[46]

Ridesharing has also spawned ancillary service categories in delivery, such as food delivery (e.g., Amazon Flex, Postmates, UberEats, Grubhub, DoorDash, etc.), that use platform technology to allow delivery drivers to connect with customers who would like to have food delivered.

Ridesharing companies compete to some degree with taxi companies, but taxi companies have not been able to successfully regain lost business. However, there is evidence that taxi companies have attempted to compete with ridesharing companies on the basis of quality dimensions. For example, a study by Wallsten found that in New York the increasing popularity of Uber as measured by Google Trends[47] was associated with a decline in the number of consumer complaints about taxis per trip, whereas in Chicago, Uber's increasing popularity was associated with a decline in particular types of complaints of taxis such as broken credit card readers, air conditioning and heating, rudeness, and talking on cell phones.[48] There is also evidence that some taxi companies adopt and offer their services through smartphone applications similar to Uber and Lyft.[49] These analyses shed light on some of the competitive effects of platform technology, demonstrating that benefits "may accrue not just to those who avail themselves of new options, like ride-sharing, but also to those who stick with traditional providers."[50]

TaskRabbit, a platform company that matches freelance "taskers" with people who need handiwork completed for a variety of household chores and repairs (e.g. handyman, house cleaning, moving, and personal assistants), helped develop a whole industry that previously was a fragmented, low-tech space of one-off providers.[51] Then in September 2017, TaskRabbit was acquired by Swedish retailer, IKEA, creating a tech-savvy, synergistic partnership that is in turn

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[46] Schneider, Todd, "Taxi and Ridehailing Usage in New York City," https://toddwschneider.com/dashboards/nyc-taxi-ridehailing-uber-lyft-data/.

[47] Google Trends provides an index of the volume of Google search queries for a given search term by geographic location, category, and over time. *See also* Choi, Hyunyoung and Hal R. Varian, "Predicting the Present with Google Trends," April 10, 2009, https://static.googleusercontent.com/media/www.google.com/en//googleblogs/pdfs/google_predicting_the_present.pdf.

[48] Wallsten, Scott, "The Competitive Effects of the Sharing Economy: How is Uber Changing Taxis?" (2015), p. 3.

[49] *See* for example, "Flywheel-The Taxi App," available in App Store, https://itunes.apple.com/us/app/flywheel/id584165682?ls=1&mt=8, and Flywheel taxi, "About," https://flywheeltaxi.com/about/.

[50] Wallsten, Scott, "The Competitive Effects of the Sharing Economy: How is Uber Changing Taxis?" (2015), p. 19.

[51] Casey Newton, "TaskRabbit is blowing up its business model and becoming the Uber for everything," The Verge, June 17, 2014, https://www.theverge.com/2014/6/17/5816254/taskrabbit-blows-up-its-auction-house-to-offer-services-on-demand; "TaskRabbit is using open innovation to tap an unrealized labor market, but can it sustain its growth?" Harvard Business School, November 12, 2018, https://digital.hbs.edu/platform-rctom/submission/taskrabbit-is-using-open-innovation-to-tap-an-unrealized-labor-market-but-can-it-sustain-its-growth/.

boosting the retailing segment, as well as creating built-in access to a customer base for freelance taskers to serve.[52]

A growing body of literature has studied platform markets and to a high degree found that digital labor markets can vary substantially, from either pure two-side markets or a hybrid of market and hierarchy, which need to be ascertained on a case-by-case basis.[53] Take pay, for example. TaskRabbit requires taskers to pay a fee to be listed on the platform, but taskers take home the entire income earned on the rates they set themselves. Consumers pay a fee to use TaskRabbit.[54] Taskers compete with other taskers with similar offerings on cost and quality. The TaskRabbit business model is a fundamentally different business model than currently exists in the ride-sharing space, where drivers accept or reject ride requests, must meet certain acceptance thresholds to continue as a service provider, get paid on a piecemeal basis, and do not set their own rates.[55]

Below, we describe the latest surveys and empirical research on the ODE marketplace, highlighting what is known about the size and composition of workers on ODE platforms. In Sections V, VI, VII, and VIII, we discuss what is known about worker motivations for turning to ODE work, working conditions and wages on these platforms.

Despite the expansion of the ODE workforce, ODE work is typically not the most significant source of primary income. As described above, both the BLS and Katz and Krueger estimate that the ODE workforce (defined as primary source of income) is fairly small, between 0.5% to 1.5% of the total workforce. Mishel (2018) estimates that the entire ODE labor force accounts for just 0.1 percent of national FTE employment (based on conversions hours/weeks worked), despite several years of rapid growth.[56] Harris and Krueger estimate that Uber drivers alone represent about two-thirds of the entire U.S. platform economy.[57]

ODE work remains a secondary source of income. Researchers from JPMorgan Chase Institute examined rates of participation in labor platforms across 15 cities from its proprietary financial database source.[58] The authors found the following:[59]

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52 PYMNTS, "How TaskRabbit, With IKEA, Is Reshaping The Gig Economy," October 18, 2019, https://www.pymnts.com/gig-economy/2019/how-taskrabbit-with-ikea-is-reshaping-the-gig-economy/ , (hereafter, PYMNTS 2019); Aaron Pressman, "Why TaskRabbit's Gig Economy Model Is Thriving Under Ikea's Ownership," Yahoo Finance, July 17, 2018, https://finance.yahoo.com/news/why-taskrabbit-gig-economy-model-231338081.html.

53 Bogliacino et al. 2019.

54 PYMNTS 2019.

55 Mary Thompson, "Sharing Economy Makes it Pay to Work on your Own," CNBC, July 2, 2015, https://www.cnbc.com/2015/07/01/sharing-economy-makes-it-pay-to-work-on-your-own.html.

56 Lawrence Mishel, "Uber and the labor market," Economic Policy Institute, May 15, 2018, (hereafter, Mishel 2018). He estimates there were about 833,000 Uber driver participants in 2018.

57 Harris, Seth D., and Alan B. Krueger. 2015. *A Proposal for Modernizing Labor Laws for Twenty-First-Century Work: The "Independent Worker."* The Hamilton Project, December 2015, (hereafter, Harris and Krueger 2015).

58 "The Online Platform Economy: who ears the most?" JPMorgan Chase Institute, May 2016, https://institute.jpmorganchase.com/institute/research/labor-markets/insight-online-platform-econ-earnings.htm. The data source is an anonymized sample of over 260,000 core Chase checking account customers who earned income on at least one of the 30 platforms.

59 *Ibid.*

- "Participation in labor platforms ranged from a high of 2.2 percent in San Francisco to a low of 0.4 percent of adults in New York City" in the 12 months up to Sept. 2015.
- Platform labor earnings were largely a secondary source of income[60] for "established participants"[61] "in all 15 cities and the nation as a whole, representing 26 percent of annual income for labor platform participants and 11 percent of annual income for capital platform participants."[62] "Among all platform earners, including individuals who began participating during the most recent year, platform earnings represented 14 percent of total income for labor platform participants and 6 percent of income for capital platform participants."[63]
- Reliance on labor platform income varied greatly across the 15 major cities among established platform participants—between 35% of total income in San Francisco to about 15% of total income in Detroit.
- The Online Labor Platform Economy attracted individuals across the income spectrum, not just low-income individuals.
- "Millennials were most likely to earn income from the Online Platform Economy, but they were the least reliant on platform earnings across age groups."

The Aspen Institute, quoting a report from Intuit and Emergent Research, reported:[64]

- "The average ODE worker works about 12 hours per week for an ODE partner company; 57% work less than 10 hours per week with their ODE partner company."[65]
- "Only 9.6% report working more than 30 hours per week with their ODE partner company."

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[60] The report does not provide the percentage of workers for whom platform labor earnings are a secondary source of income.

[61] The researchers define "established participants" as those who "received platform income at any point in the two years before October 2014."

[62] "The Online Platform Economy: who ears the most?" JPMorgan Chase Institute, May 2016, https://institute.jpmorganchase.com/institute/research/labor-markets/insight-online-platform-econ-earnings.htm.

[63] *Ibid.*

[64] Libby Reader, "Data on The Sharing & On-Demand Economy: What We Know and Don't Know," Aspen Institute, 2016. Intuit surveyed 6,427 ODE workers in the fall of 2016 who find work opportunities via 12 ODE platforms: Lyft, Amazon Mechanical Turk, Upwork, TaskRabbit, Wonolo, MBO Partners, OnForce, Work Market, Catalant, Field Nation, Kelly Services and Avvo and results are weighted to reflect the proportion of providers in each of the three segments (driver/delivery, online talent, field service). See, "Dispatches from the New Economy: The On-Demand Worker Study," Intuit and Emergent Research, 2016. https://intuittaxandfinancialcenter.com/wp-content/uploads/2017/06/Dispatches-from-the-New-Economy-Long-Form-Report.pdf. See also previous version of this study at https://www.slideshare.net/IntuitInc/dispatches-from-the-new-economy-the-ondemand-workforce-57613212.

[65] In addition, Eisenbrey and Mishel report that "As for Lyft, in its press release regarding a court settlement in January 2016, the company noted: 'Roughly 80 percent of drivers who use the Lyft platform drive 15 hours per week or less to supplement their incomes.'" Eisenbrey, Ross and Lawrence Mishel, "Uber business model does not justify a new independent worker' category," Economic Policy Institute, March 17, 2016, (hereafter Mishel 2016).

- "43% have either a traditional full-time job (29%) or part-time job (14%) in addition to their ODE work."
- "The average ODE worker has 2-3 non-ODE sources of income. Most earn from one platform; only 17% earn from two or more platforms."
- "14% of labor platform participants and just 1% of capital platform participants are earning income from more than one platform in any given month."

In summary, while the available research indicates that ODE work is dominated by those seeking supplemental, part-time earnings, one should not conclude that these ODE opportunities are not economically important to the significant number of individuals engaged in this work, as we show in Sections V and VII.

D. The Retail Sector

E-commerce sales as a share of total retail sales have been growing significantly, doubling from 4.2 percent in 2010 to 11.2 percent in Q3-2019.[66] That said, traditional brick-and-mortar retail continues to dominate, accounting for over 85% of retail sales. Goldman Sachs estimates that traditional in-store sales require "more than three and a half times as many workers as the same amount of sales transacted online."[67]

Amazon topped the list of the top e-commerce retailers in the U.S. (2019), with 47% of sales, followed by eBay (6.1%), Walmart (4.6%), Apple (3.8%), and The Home Depot (1.7%).[68] Despite the continued dominance of brick-and-mortar retail, the Covid-19 pandemic is accelerating the rise of E-commerce sales. Following the onset of the pandemic, projections changed from 2.8% expected retail sales growth in 2020 to an expected decline of 10.5%.[69] Embedded within this expectation was a predicted 14.0% drop in brick-and-mortar sales, combined with 18.0% growth in E-commerce.[70]

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[66] See, also, U.S. Census Bureau News , "Quarterly Retail E-Commerce Sales 2nd quarter 2020," U.S. Department of Commerce, August 18 2020, https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf; According to another source, Internet Retailer, "ecommerce now accounts for 16.0% of total retail sales after factoring out the sale of items not normally purchased online, such as fuel, automobiles and sales in restaurants…". See, Fareeha Ali, "A decade in review: Ecommerce sales vs. retail sales 2007-2019," Digital Commerce 360, March 3, 2020, https://www.digitalcommerce360.com/article/e-commerce-sales-retail-sales-ten-year-review/.

[67] See, Alastair Fitzpayne, Ethan Pollack, and Hilary Greenberg, "Industry at a Glance: The Future of Retail," Aspen Institute, November 27, 2017 at https://www.aspeninstitute.org/blog-posts/industry-at-a-glance-the-future-of-retail/.

[68] e-marketer Editors, Feb. 4, 2019 at https://www.emarketer.com/content/digital-investments-pay-off-for-walmart-in-ecommerce-race.

[69] eMarketer, "US Ecommerce Will Rise 18% in 2020 amid the Pandemic," July 2, 2020, https://www.emarketer.com/content/us-ecommerce-will-rise-18-2020-amid-pandemic.

[70] eMarketer, "US Ecommerce Will Rise 18% in 2020 amid the Pandemic," July 2, 2020, https://www.emarketer.com/content/us-ecommerce-will-rise-18-2020-amid-pandemic.

i. Impact of technical change on retail

According to the BLS, the retail sector has lost over 110,000 jobs since January 2017 (through December 2019),[71] however, government data may be misleading regarding the true measurements of decline in retail sector jobs. The National Retail Federation suggests that government statistics may largely show a shift in the types of people that the retail segment employs. For example, while it is correct that many major retailers have gone bankrupt in the last decade, technological shifts have caused many major retailers to actually shift the types of employees it hires (e.g., employing fewer cashiers and sales clerks, but more warehouse and distribution workers, the latter of which are not captured under BLS's classification of the retail sector).[72] The Covid-19 pandemic has only accelerated this trend. Some e-commerce workers are also captured in the BLS's retail sector, "nonstore retailers" NAICS 454, however, the BLS statistics look at where an employee works (i.e., the retail outlet), not for whom. Software developers that work in e-commerce or retail generally will not be captured in the retail segment; neither will most of the corporate staff.[73]

Thus, while the e-commerce segment is steadily gaining ground on traditional retailers, the largest of these retailers are fighting e-commerce's encroachment through adoption of technologies and rethinking the status quo relationship with workers, albeit in many cases acting as followers, rather than leaders.

The traditional retail sector is increasingly competing against e-commerce and other ODE platforms for critical labor talent,[74] and is quickly learning that its labor pool has a variety of options that include the flexibility in working conditions many workers are seeking. Traditional retail presumably will need to meet the competition with similar or better options.

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[71] For a description of the establishments included in the Retail sector, NAICS 44-45, see, "Retail Trade: NAICS 44-45," U.S. Bureau of Labor Statistics, https://www.bls.gov/iag/tgs/iag44-45.htm#workforce.

[72] See, for example, "If you want to measure retail employment, don't look to monthly BLS employment figures," National Retail Federation, May 3, 2019, https://nrf.com/blog/if-you-want-measure-retail-employment-dont-look-monthly-bls-employment-figures, (hereafter, NRF 2019); Thomas Franck, "Booming jobs market is leaving the retail industry behind," CNBC, April 8, 2019, https://www.cnbc.com/2019/04/05/booming-jobs-market-is-leaving-the-retail-industry-behind.html.

[73] "How did employment fare a decade after its 2008 peak?" U.S. Bureau of Labor Statistics, Monthly Labor Review, October 2018, https://www.bls.gov/opub/mlr/2018/article/how-did-employment-fare.htm; NRF 2019; Elka Torpey, "Employment Growth and Wages in e-Commerce," U.S. Bureau of Labor Statistics, December 2018, https://www.bls.gov/careeroutlook/2018/article/e-commerce-growth.htm.

[74] Jordan Verdon, "For Retailers this Holiday Season, Good Help Will Be Hard to Find," Forbes, September 20, 2019, https://www.forbes.com/sites/joanverdon/2019/09/20/for-retailers-this-holiday-season-good-help-will-be-hard-to-find/#386c4e046016; Knowledge@Wharton, "Talent on Tap: Why Online Labor Platforms Are Taking Off," Wharton, University of Pennsylvania, January 16, 2019, https://knowledge.wharton.upenn.edu/article/talent-tap-online-labor-platforms-taking-off/; ManpowerGroup Solutions and Retail Industry Leaders Association, "Apocalypse or Evolution: What Retail Employers Need to Know About Candidate Preferences," 2018, https://www.manpowergroup.us/campaigns/manpowergroup/us-candidate-tech-preferences/siri-find-me-a-job/pdf/us-retail-candidate-preferences-report.pdf (hereafter, *Apocalypse or Evolution, 2018*); ManpowerGroup Solutions and Retail Industry Leaders Association, "Fully Stocked," 2019 at https://rilastagemedia.blob.core.windows.net/rila-web/rila.web/media/media/pdfs/reports/mpgs_fully_stocked_retail_report-finalv2.pdf (hereafter, *Fully Stocked, 2019).*

Accordingly, leading retailers are implementing innovative and customizable solutions that are not one-size-fits-all to attract and retain a varied workforce. Job seekers in the retail industry are a diverse group, ranging from millennial students, semi-retirees, and homemakers seeking part-time work that fits around their family commitments. Their needs and preferences are not the same, but control over work scheduling and access to some benefits (although not always the same ones) appear prominently on their list of features they seek in a job.[75]

One solution that has been gaining some acceptance is the "on-demand staffing platform." These platforms, such as Jyve, HYR, Fountain, and Wonolo, assist employers with hiring, onboarding, and training a shared pool of qualified workers. These platforms use a scheduling software to offer or assign shifts, geo-track attendance, provide feedback and even use surge pricing to fill shifts.[76]

Others are adopting scheduling apps. Managers can post shifts on these apps, and workers often can also schedule shifts or swap shifts without requiring managerial coordination.[77] Preliminary evidence suggests some of these innovations are paying off with increased worker and managerial productivity, enhanced scheduling consistency for staff, and increased floor sales.[78]

ii. *Technical innovation affecting labor market trends from the largest brick-and-mortar retailer, Walmart, relative to the largest e-commerce retailer, Amazon*

Walmart, as the world's largest private employer, is often looked to as a leader of labor market trends. Walmart's 2018 revenue and net income was \$514B and \$6.7B vs. Amazon's \$233B and \$10.1B, respectively.[79] However, Walmart employs 4 times as many people as Amazon.[80]

Currently, Walmart and Amazon appear to be matching each other's new ideas and innovations.[81] Amazon launched its Amazon Go convenience stores, which totaled 21 locations in 2019[82] where customers can purchase items without needing a cashier to check out. Sam's

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[75] *Apocalypse or Evolution, 2018; Fully Stocked, 2019*.
[76] *Fully Stocked, 2019*.
[77] *Fully Stocked, 2019*.
[78] Joan C. Williams, Susan Lambert, and Saravanan Kesavan, "How the Gap Used an App to Give Workers More Control Over Their Schedules," Harvard Business Review, December 27, 2017. See full report at https://worklifelaw.org/publications/Stable-Scheduling-Study-Report.pdf; see also, *Fully Stocked, 2019*.
[79] "Amazon vs Walmart – Revenues and Profits Comparison 1999-2018," MGM Research, March 1, 2019, https://mgmresearch.com/amazon-vs-walmart-revenues-and-profits-comparison-1999-2018/.
[80] Amy Merrick, "Walmart's Future Workforce: Robots and Freelancers," The Atlantic, April 4, 2018, https://www.theatlantic.com/business/archive/2018/04/walmarts-future-workforce-robots-and-freelancers/557063/, (hereafter, Merrick 2018).
[81] Blake Morgan, "7 Ways Amazon and Walmart Compete -A Look At The Numbers," Forbes, August 21, 2019, https://www.forbes.com/sites/blakemorgan/2019/08/21/amazon-versus-walmart-goliath-versus-goliath/#594b1194674f.
[82] James Vincent, "Amazon reportedly plans bigger cashierless supermarkets for 2020," The Verge, November 20, 2019, https://www.theverge.com/2019/11/20/20974037/amazon-go-cashierless-2020-expansion-supermarkets-pop-up-stores.

Club, owned by Walmart, has developed its own version of this technology.[83] A 2018 *Atlantic* piece indicated that Walmart was moving towards greater use of gig labor (crowd-sourced personal shoppers and delivery drivers) and automation (more self-check outs or no check-outs).[84]

As reported at *Forbes*, "Walmart recently announced it will add 1,500 robots to hundreds of stores around the country, and it has already automated much of its supply chain and online order pickup processes. It is testing pickup-only locations as well as kiosks where customers can pick up orders quickly without interacting with a human. … Amazon is also leveraging robots at its large fulfillment centers and even recently started using autonomous robots to deliver packages in select markets."[85]

In 2016, Walmart announced that it was implementing a pilot roll-out of a new employee scheduling software app that predicts the busiest times at each store and staffs its stores accordingly, while also giving associates more predictable and flexible scheduling options.[86] According to Walmart, the app, called *My Walmart Schedule* allows associates to view their schedules, swap shifts, and pick up unfilled shifts.[87] This gives associates more control of their scheduling. It also allows them to work any available position they prefer (e.g., stocking, cashier, etc.) as long as they are trained. The software was employed at all stores in November 2018.[88]

iii. Old Navy[89]

A December 2019 *New York Times* article illustrates "the job of a retail clothing worker at the end of 2019: dashing back and forth between stockroom and fitting room and sales floor, online and in-store, juggling the hats of cashier and cheerleader and personal shopper and visual merchandiser and database manager." Through the use of multiple apps, retail workers strive to be all things to all customers. These days, retail outlets are not looking for traditional salespeople, "they're looking for retail transaction enablers."

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[83] Nat Levy, "Walmart unveils Sam's Club Now, its answer to Amazon Go, opening soon in Dallas," GeekWire, October 29, 2018, https://www.geekwire.com/2018/walmart-unveils-sams-club-now-answer-amazon-go-opening-soon-dallas/.
[84] Merrick 2018.
[85] Blake Morgan, "7 Ways Amazon and Walmart Compete -A Look At The Numbers," Forbes, August 21, 2019, https://www.forbes.com/sites/blakemorgan/2019/08/21/amazon-versus-walmart-goliath-versus-goliath/#653ec9f54674; Peter Holley, "Amazon's autonomous robots have started delivering packages in Southern California," The Seattle Times, August 12, 2019, https://www.seattletimes.com/business/technology/amazons-autonomous-robots-have-started-delivering-packages-in-southern-california/.
[86] Jennifer Parris, "Walmart's New Approach to Scheduling, Flexibility," flexjobs, August 19, 2016, https://www.flexjobs.com/employer-blog/walmarts-new-approach-scheduling-flexibility/ (hereafter, Parris 2016). See also, Matt Smith, "New Scheduling System Gives Associates More Consistency and Flexibility," Walmart Corporate Affairs, https://corporate.walmart.com/newsroom/2018/11/13/new-scheduling-system-gives-associates-more-consistency-and-flexibility, (hereafter, Smith 2018)
[87] Parris 2016.
[88] Smith 2018. We are unaware of published documentation of the efficacy of this software.
[89] Andy Newman, "Her Job Requires 7 Apps. She Works Retail," New York Times, December 26, 2019 at https://www.nytimes.com/2019/12/26/nyregion/old-navy-workers.html.

E. The Direct Selling Industry

Direct Selling is the retailing of a good or service directly from one person to another, not at a fixed retail location. "Providers in the industry are referred to as independent consultants, distributors or representatives. Sales are usually done via home parties, workplaces, trucks, street-corner carts or door-to-door."[90] Some well-known brands in the Direct Selling industry include Amway, Avon Products, and Tupperware. The major product and service areas are clothing and accessories, home, family, and personal care products, and leisure and educational products.[91]

An industry report states, "While intense external competition has negatively affected the industry over the five years to 2019, the industry has managed to achieve growth as a result of the strengthening national economy and robust disposable income. Increased competition from mass merchandisers, department stores and online retailers has threatened the industry by providing a wider selection of substitute products at low prices in a convenient one-stop location. However, as many industry operators have no physical locations, the price advantage competitors have over many retailers is minimized, which has somewhat mitigated the effects of dwindling industry customers."[92]

Looking forward, online sales, with its competitive prices, convenience and a broader range of products, will continue to erode growth of Direct Selling products and analysts predict that industry revenues will stagnate over the next five years. Furthermore, to the degree that Direct Selling involves direct, in-person interaction, its growth may stop or decline during the Covid-19 pandemic.

Because Direct Selling entrepreneurs have relatively low start-up costs, many Americans who are unemployed or underemployed start Direct Selling businesses in order to earn income. During the low unemployment rates of the last decade, these operators have generally opted to remain in the industry on a part-time basis, instead of exiting the industry all together (part-time direct sellers out-number full-time direct sellers by a factor of five).[93] In addition, other operators entered the industry to use it as a flexible, low-commitment vehicle to earn supplemental income.[94]

Direct Selling companies and consultants have adopted a limited set of technological tools. For example, many Direct Sellers use mobile POS terminals to process sales and many consultants can accept orders online, but these technologies have already been available for some

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[90] Spitzer, Dan, "Out of stock: The threat of e-commerce is expected to stifle industry revenue growth, Direct Selling Companies in the U.S.," IBISWorld Industry Report 45439, December 2019, (hereafter, Spitzer 2019). See, discussion in Section III.E.
[91] Spitzer 2019, pp. 5-6.
[92] Spitzer 2019, p. 6.
[93] Part-time resellers are defined as working fewer than 30 hours/week. See, Direct Selling Association, "Direct Selling in the Industry, 2018 Industry Overview, at https://www.dsa.org/docs/default-source/action-alerts/2018industryoverview-06032019.pdf?sfvrsn=9709c0a5_0.
[94] Spitzer 2019, p. 6.

time.[95] In addition, some operators use online marketing, blogging, testimonials, and other social media technologies to reach a broader targeted audience for their products; however, the research on adoption and success of these approaches is unknown.[96] Because many direct selling operators are sole proprietors and generate small quantities of sales within homes, technological adoption has not been perceived to be appropriate or necessary; rather, a heavy reliance on labor characterizes the industry (e.g., live demonstrations). At the corporate level, larger brands are upgrading their order management systems and other technologies to improve internal and external communications, track inventories, and coordinate sales teams.[97] However, industry analysts anticipate little technological change in the industry over the next five years.[98]

To some degree, technology and innovation have been more significant drivers of competitors' businesses than of business in the Direct Selling industry. In that regard, the Direct Selling industry must develop alternative means to maintain and grow its customer base and compelling reasons to retain and recruit enthusiastic brand representatives to move the industry forward.

F. Staffing Agencies

Companies in the staffing services industry include temporary staffing, outsourced HR management, and employee placement services. An industry report identifies several major U.S. companies including Allegis, Kelly Services, ManpowerGroup, and Robert Half International.[99]

The staffing services industry typically performs well during a robust economy. However, clients typically reduce employment of temporary employees before conducting permanent staff layoffs during an economic downturn. Pricing competition, "which is stiffer among providers of clerical and industrial personnel, may intensify during periods of economic instability."[100]

Other competitive factors include the emergence of online staffing platforms and other disintermediation methods, which are being used increasingly by clients and job finders to side-step intermediaries.

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[95] DNS Staff, "Ramp Up Your Direct Selling Business with Mobile POS," Direct Selling News, September 1, 2013, https://www.directsellingnews.com/ramp-up-your-direct-selling-business-with-mobile-pos/; Dunn & Bradstreet, Direct Selling Industry Profile, July 29, 2019.

[96] Rhonda Bavaro, "Attract New Customers to Your Direct Sales Business Using the Power of Inbound Marketing," SMA Marketing, February 11, 2020, https://www.smamarketing.net/blog/direct-sales-business-using-inbound-marketing.

[97] Dunn & Bradstreet, Direct Selling Industry Profile, July 29, 2019.

[98] Industry analyst IBISWorld reports that some larger operators have introduced online member tools to assist their sales force. For instance, Avon has implemented an electronic ordering system to assist its sales force in efficiently ordering inventory. In addition, its sales force is able to use the internet and mobile devices to manage their own businesses. Mary Kay offers websites for each sales member that can be customized and through which buyers can locate a sales member on the go and request an order. Herbalife has a compilation of recruiting tips and advice for planning product parties, but these are only available via downloadable Portable Document Format (PDF) documents. See, Spitzer 2019, pp. 12, 21, 23, 28.

[99] Some companies concentrate on manual labor or administrative services, while others specialize in certain fields. Dunn & Bradstreet, Staffing Services, Industry Profile, June 3, 2019.

[100] Dunn & Bradstreet, Staffing Services, Industry Profile, June 3, 2019.

On the positive side, some internet job-search companies and social media sites collaborate with traditional staffing agencies. While some online job aggregators "do not allow agencies to use their services to post jobs or look through resumes, others find that agencies are their biggest customers, earning the sites a large percentage of their revenue. In addition, some staffing companies contract to help client employers find workers online."[101]

When asked if labor automation would create more jobs or eliminate opportunities, survey respondents in the staffing industry were split down the middle with about "38% on each side and another 24 % undecided".[102]

Companies in the industry are also using new online technology to improve staffing efficiency. "For example, some online applications coordinate workflow for staffing agencies, their clients, and temporary workers, and allow agencies and customers to share work order requests, submit and track candidates, approve timesheets and expenses, and run reports. Interaction between candidates and potential employers is increasingly being handled online. Clients are also increasingly expecting online services on-the-go. Mobility is an important feature of many staffing agency technology solutions."[103]

IV. Legal and Regulatory Issues

With the emergence of alternative working arrangements in response to the new technologies, governments, regulatory bodies, legislatures, and courts are seeing a need to respond. For example, within the past year several state governments have pursued legislation with the apparent intended effect of converting many independent contractors to employees. Most notably, California recently passed the widely-publicized California Assembly Bill 5 (A.B. 5), which codified a more stringent three-part test for whether a worker should be categorized as an independent contractor. The ultimate impact of this legislation is unknown, as it has resulted in lawsuits (over constitutionality), refinements and exemptions for some industries, and a potential ballot measure to exempt some app-based companies.[104] This codification of a California Supreme Court[105] case has raised some challenges to firms' abilities to respond to the new economy with alternative work arrangements.

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[101] Staffing 360 Solutions, Inc. 2018 10-K, p. 6; Dunn & Bradstreet, Staffing Services, Industry Profile, June 3, 2019; Jorgen Sundberg, "5 Trends Staffing Firms are Anticipating to Impact the Industry," Undercover Recruiter, 2018, https://theundercoverrecruiter.com/staffing-firms-impact/, (hereafter, Sundberg 2018)

[102] Sundberg 2018.

[103] Mohr Partners, Inc., "Industry Newsletter," https://mohrpartners.com/wp-content/uploads/2014/08/Staffing-Industry-Newsletter-7-2014.pdf; Dunn & Bradstreet, Staffing Services, Industry Profile, June 3, 2019.

[104] Gabrielle Cannon, "AB 5 in California: Amid lawsuits, ballot measure push and confusion, lawmakers promise to refine law," USA Today, January 21, 2020, https://www.usatoday.com/story/news/politics/2020/01/21/california-lawmaker-promises-refine-ab-5-amid-lawsuits-confusion/4505702002/.

[105] Vin Gurrieri, "Battles Over California's Dynamex Law Just Beginning," Law360, October 11, 2019, https://www.law360.com/articles/1208995/battles-over-california-s-dynamex-law-just-beginning.

A host of occupations were carved out from A.B. 5's ABC test,[106] and for these occupations the multi-factor *Borello* test is instead implemented to determine worker classification.[107] General occupational exemptions from A.B. 5 include doctors, professionals such as lawyers, architects, and engineers, professional services including marketing or human resources administrators, travel agents, graphic designers, grant writers, fine artists, financial services workers such as accountants, securities broker-dealers, investment advisors, insurance brokers, real estate agents, builders and contractors, hair stylists and barbers,[108] direct sales people,[109] estheticians, electrologists, and manicurists (if licensed), tutors,[110] commercial fishermen, freelance writers and photographers.[111] All other occupations are covered under A.B. 5.—many of which were often treated as independent contractors in the past.

Some affected worker groups have initiated significant pushback against the A.B. 5 legislation.[112] For example, most recently, several business groups came together to ask a federal judge for permission to file an amicus brief supporting a preliminary injunction against A.B. 5.[113] Meanwhile, other lawsuits have attempted to block implementation of the law for certain groups. After the California Trucking Association won a temporary restraining order to prevent A.B. 5 from being enforced against trucking companies that use owner-operators, the Superior Court of California ruled that independent truckers are exempt from A.B. 5.[114] The judge ruled that A.B. 5 was unconstitutional as applied to the trucking industry due to the Federal Aviation Administration Authorization Act (FAAAA) that prohibits enforcing laws that affect a motor carrier's prices, routes, and services.[115]

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[106] "[T]o satisfy the ABC test and legally classify a worker as an independent contractor, the company must prove that the worker is free from the company's control, performs work outside the company's primary business, and is regularly engaged in the trade the worker is hired for, independent of work for the company." Sabarwal Law, "The Dynamex Case And Impact to California Employers Jan 1, 2020," October 29, 2019, https://sabarwallaw.com/2019/10/the-dynamex-case-and-impact-to-california-employers-jan-1-2020/. The last two are new factors that were not previously part of California's independent contractor analysis. See, Stephen Fishman, " Exempt Job Categories Under California's AB5 Law," NOLO, 2020, https://www.nolo.com/legal-encyclopedia/exempt-job-categories-under-californias-new-ab5-law.html, (hereafter NOLO 2020).
[107] "The *Borello* test has 11 factors, primarily focusing on whether a company has control over the means and manner of performing contracted work, and additional secondary factors, such as who provides work tools and the individual's opportunity for profit or loss, to determine contractor status." Davis Wright Tremaine LLP, "New California AB 5 Law Expands Independent Contractor ABC Test," September 19, 2019, https://www.dwt.com/blogs/employment-labor-and-benefits/2019/09/california-ab5-employment-law.
[108] If licensed and can set own rates and schedule.
[109] Must not be paid by the hour and have written independent contractor contracts.
[110] If teaches own curriculum, and are not public school tutors.
[111] If contributing no more than 35 submissions to an outlet in a year.
[112] Chiem, Linda, "Chamber, Tech Groups Back Gig Cos.' AB 5 Injunction Bid," *Law360*, February 5, 2020; Vin Gurrieri, "Freelance Journalists Lose Bid to Pause Calif. Dynamex Law," Law360, January 6, 2020.
[113] Chiem, Linda, "Chamber, Tech Groups Back Gig Cos.' AB 5 Injunction Bid," *Law360*, February 5, 2020.
[114] Deborah Lockridge, "Judge Extends Restraining Order Keeping California from Enforcing AB5 in Trucking," Heavy Duty Trucking, January 13, 2020, https://www.truckinginfo.com/348614/judge-extends-restraining-order-keeping-california-from-enforcing-ab5-in-truckin, (hereafter, Lockridge 2020); Evan Symon, "California Court Rules That Truckers Are Exempt From AB 5," California Globe, January 13, 2020, https://californiaglobe.com/section-2/california-court-rules-that-truckers-are-exempt-from-ab-5/, (hereafter, Symon 2020).
[115] Lockridge 2020; Symon 2020.

In addition, organizations representing freelance journalists (including writers and photographers)[116] have filed suit against A.B. 5's limits on the number of pieces that a freelancer can submit to a publisher before having to be classified as an employee.[117] Still other organizations supporting translators and interpreters and others supporting musicians are pushing for exemptions to A.B. 5 for professionals in those fields,[118] and bills were recently introduced to the state legislature to exempt these workers from A.B. 5's reach.[119] This suggests that at a minimum, many independent workers prefer the attributes, including flexibility, attributable to freelance work.

Lyft and Uber have claimed that A.B. 5 will not impact the classification of drivers using their apps as independent contractors because these drivers do not work in Lyft or Uber's ordinary course of business.[120] Consistent with its claim that platform-based drivers are not controlled by Uber, Uber has begun testing features allowing drivers to select their own prices when offering transportation services to riders.[121]

Regulation outside of California has also affected employment relationships. For example, a bill similar to A.B. 5 (New Jersey S4204) was introduced in New Jersey in November 2019.[122] In New York City, regulations over the past two years involved caps on rideshare vehicles and minimum pay rates.[123] New York's freeze on the number of for-hire vehicle registrations is described as an attempt to ease traffic congestion in the city.[124] Other legislation that would limit

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[116] Specifically, a lawsuit was filed by two associations of freelance journalists whose members reject certain carve-out clauses of A.B.5 that Plaintiffs argue would effectively categorize freelance journalists as employees (if they contribute more than 35 submissions to an outlet in a year), causing the journalists to lose copyright ownership of their journalism and flexibility to control assignments. This lawsuit is evidence of the value that certain groups place on being categorized as independent contractors rather than employees. See, Vin Gurrieri, "Freelance Journalists Lose Bid to Pause Calif. Dynamex Law," Law360, January 6, 2020.

[117] Suhauna Hussain, "Freelance journalists file suit over contractor law AB5," Los Angeles Times, December 17, 2019, https://www.latimes.com/business/story/2019-12-17/freelance-journalist-ab5-lawsuit.

[118] Interpret America, "Update: California Assembly Bill 5 and Its Possible Effects on Interpreters and Translators," August 26, 2019, https://www.interpretamerica.com/post/update-california-assembly-bill-5-and-its-possible-effects-on-interpreters-and-translators; " AB5: Exempt Independent Musicians," Change.org, https://www.change.org/p/california-governor-exempt-independent-musicians-from-ab5.

[119] City News Service, "Proposed bill would exempt musicians from AB 5," ABC10 San Diego News, February 5, 2020, https://www.10news.com/news/local-news/proposed-bill-would-exempt-musicians-from-ab-5; Chris Jennewien, "Brian Jones Bill to Exempt Musicians Adds to Efforts to Blunt Assembly Bill 5," February 4, 2020, https://timesofsandiego.com/politics/2020/02/04/brian-jones-bill-to-exempt-musicians-adds-to-efforts-to-blunt-assembly-bill-5/.

[120] Shirin Ghaffary, "Uber and Lyft say they don't plan to reclassify their drivers as employees," Vox, September 11, 2019, https://www.vox.com/2019/9/11/20861599/ab-5-uber-lyft-drivers-contractors-reclassify-employees.

[121] Scott Rodd, "Due To New California Law, Uber Allows Some Drivers To Set Their Own Rates," NPR, All Things Considered, January 28, 2020, https://www.npr.org/2020/01/28/800437791/due-to-new-california-law-uber-allows-some-drivers-to-set-their-own-rates.

[122] Catherine Chidyausiku, "The AB5 tremors are spreading: New Jersey legislature introduces Bill S4204," TalentWave Blog, December 4, 2019,https://www.talentwave.com/the-ab5-tremors-are-spreading-new-jersey-legislature-introduces-bill-s4204/.

[123] Aarian Marshall, "New York City Flexes Again, Extending Cap on Uber and Lyft," Wired, May 15, 2019, https://www.wired.com/story/new-york-city-flexes-extending-cap-uber-lyft/, (hereafter, Marshall 2019).

[124] Marshall 2019

"cruising" by for-hire vehicles was struck down by a New York judge in late 2019.[125] In his proposed 2021 New York state budget, Governor Cuomo unveiled a task force to address the gig economy. The task force would "provide the governor and the legislature with a legislative recommendation addressing the conditions of employment and classification of workers in the modern economy of on-demand workers connected to customers via the internet."[126]

Some recent research examines outcomes for stakeholders (drivers, platforms, customers, and society) that may result due to various legislative or regulatory actions (e.g., caps, mandatory minimum wages).

One paper (whose lead author worked at Lyft) built a model to "study the implications of utilization-based minimum earning regulations of the kind recently enacted by New York City for its ride-hailing providers."[127] The paper's main theoretical finding is that "in a tight labor market, it is not feasible to raise earnings above the equilibrium wage…without losing stability," where stability is defined as wages remaining bounded and profits remaining non-negative. The authors find that in a loose labor market, such a raise in earnings can be achieved via regulation, to the degree that supply can "be funded by the maximum revenue extractable from the market." The authors argue that under "utilization-based regulation, platforms cannot sustain hourly driver earnings higher than a certain threshold while still allowing unlimited working flexibility for drivers. On the other hand, we show that platforms can offer higher levels of earnings if they limit the amount of supply in the market. Consequently, supply controls are a natural outcome of utilization-based minimum earnings regulations, despite the fact that drivers highly value the flexibility of the free entry model."

Engineering professors from the University of California, Berkeley published a theoretical paper attempting to model the impact of proposed minimum driver wages, driver/vehicle caps, and per trip congestion taxes.[128] The authors claim that "Contrary to standard competitive labor market theory, enforcing a minimum wage for drivers benefits both drivers and passengers, and promotes the efficiency of the entire system … because the wage floor curbs transportation network companies ("TNCs") labor market power. In contrast to a wage floor, imposing a cap on the number of vehicles hurts drivers, because the platform reaps all the benefits of limiting supply. The congestion tax has the expected impact: fares increase, wages and platform revenue decrease."

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[125] Marshall 2019; Tina Bellon, "In win for Uber, Lyft, judge strikes down New York City's cruising cap," Reuters, December 23, 2019, https://www.reuters.com/article/us-uber-new-york/in-win-for-uber-judge-strikes-down-new-york-citys-cruising-cap-idUSKBN1YR1WC.
[126] The task force would be directed to submit its report and recommended classification standards by May 1, 2021 and the NYDOL would be authorized to promulgate regulations regarding classification of these ODE workers as appropriate. See, Battaglia, et al., "3 Employee-Friendly Updates In NY's 2021 Budget Proposal," Law360, February 12, 2020, https://www.law360.com/employment/articles/1240441/3-employee-friendly-updates-in-ny-s-2021-budget-proposal-?nl_pk=05954519-b359-497d-a158 5be996f7f224&utm_source=newsletter&utm_medium=email&utm_campaign=employment.
[127] Arash Asadpour, et al., Minimum Earnings Regulation and the Stability of Marketplaces (December 13, 2019). Available at SSRN: https://ssrn.com/abstract=3502607 or http://dx.doi.org/10.2139/ssrn.3502607.
[128] Sen Li, et al., "Regulating TNCs: Should Uber and Lyft set their own rules?" Transportation Research Part B: Methodological Volume 129, November 2019, Pages 193-225.

In sum, significant new legislation focused on making it more difficult to classify workers as independent contractors is already here, and not without significant controversy. In addition, laws that raise wage rates for rideshare drivers, and laws that address other perceived negative externalities of ODE businesses, such as increased congestion, have also been rolled out in some states, and these laws may have a significant impact on the various business models of firms that hire or rely on the alternative workforce.

V. Characteristics of Alternative Work Arrangements and Participants

The studies in this Section begin with examinations into the perception of alternative work arrangements from various stakeholders (e.g., companies and workers). Next, we review literature that examines factors driving workers into alternative work, and review how alternative work offers a solution to some of the problems confronting participants (e.g., alternative to unemployment or a negative earnings shock).

A. Deloitte Human Capital Trends Report (2019)[129]

Deloitte's annual survey on Human Capital trends polls nearly 10,000 respondents in 119 countries. Only 11 percent of respondents are from North America; 19 percent are in consumer industries (the largest industry surveyed) and they are a mix of HR (63%), IT (6%), and other (31%). Deloitte does not provide detailed information on their survey methodology. One focus of the survey was on respondents' perceptions and experience regarding the alternative workforce. "Alternative work" is defined to include outsourced teams, contractors, gig workers (paid for tasks), freelancers, and the crowd (crowd networks).

Alternative workforces are most predominantly used in the following functional areas, in order of prevalence of surveyed firms: IT, operations, marketing, innovation/R&D, HR, customer service, finance, sales, and supply chain. However, most firms are not using alternative workers strategically (i.e., lack of optimization and leveraging). Strategic integration of alternative workforces requires further thought by the business community.

Use of technology in the form of automation, including robotic process automation (RPA),[130] cognitive technologies and artificial intelligence (AI) has been growing at about 20 percent per year. While some of these technologies may replace low level labor forces, research by Deloitte posits that "automation, by removing routine work, actually makes jobs more human, enabling the role and contribution of people in work to rise in importance and value. The value of automation and AI, according to this research, lies not in the ability replace human labor with

[129] Erica Volini, et al., "Leading the social enterprise: Reinvent with a human focus," Deloitte Insights, 2019, https://www2.deloitte.com/content/dam/insights/us/articles/5136_HC-Trends-2019/DI_HC-Trends-2019.pdf.
[130] RPA is software that automates repetitive manual tasks.

machines, but in augmenting the workforce and enabling human work to be reframed in terms of problem-solving and the ability to create new knowledge."[131]

Of respondent firms, 84% who said that automation would require reskilling reported that they are increasing funding for reskilling and retraining.

As technology advances to perform more routine work, jobs change to require new skills and capabilities—the work that remains for humans will generally be more interpretive and service-oriented. These so called "hybrid jobs" use technical skills like technology operations,data analysis, and data interpretation, as well as "soft" skills like communication, services, and collaboration. There are also "superjobs"— "[r]oles that combine work and responsibilities from multiple traditional jobs, using technology to both augment and broaden the scope of the work performed and involve a more complex set of domain, technical, and human skills."[132]

Finally, the Deloitte study points to research suggesting that technology may be splitting the workforce into two: a highly educated and well-paid group where job growth is low to stagnant and a low skilled, low wage workforce (where wages are kept low enough and human dexterity is more productive than technology) that continues to grow.[133]

B. Farrell and Greig (2016, 2019)[134]

The authors' research finds that Americans experience tremendous income volatility, and that such volatility is on the rise. They find that "The typical household faces a shortfall in the financial buffer necessary to weather this volatility. Rapidly growing online platforms, such as Uber and Airbnb, have created a new marketplace for work by unbundling a job into discrete tasks and directly connecting individual sellers with consumers. These flexible, highly accessible opportunities to work have the potential to help people buffer against income and expense shocks."[135] Their work suggests that <u>workers supply more labor to the online platforms studied after negative shocks to earnings from employment</u>.

The authors find that earnings from labor platforms tend to substitute for a shortfall in non-platform income, whereas capital platform earnings (e.g., Etsy, Ebay) tend to supplement non-platform income. Thus, <u>income earned from labor platforms is a good option to mitigate or weather income volatility, if the alternative is to constrain spending, take on additional, potentially high-cost credit, or become delinquent on existing loans</u>. Moreover, this option

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[131] Erica Volini, et al., "Leading the social enterprise: Reinvent with a human focus," Deloitte Insights, 2019, https://www2.deloitte.com/content/dam/insights/us/articles/5136_HC-Trends-2019/DI_HC-Trends-2019.pdf, p. 30.
[132] Id, at p. 32.
[133] David Autor and Anna Salomons, "Is Automation Labor-Displacing? Productivity Growth, Employment, and the Labor Share," National Bureau of Economic Research Working Paper Series, Working Paper 24871, July 2018, https://www.nber.org/papers/w24871; Eduardo Porter, "Tech Is Splitting the U.S. Work Force in Two," The New York Times, February 4, 2019, https://www.nytimes.com/2019/02/04/business/economy/productivity-inequality-wages.html.
[134] Farrell, Diana, and Fiona Greig, "Paychecks, Paydays, and the Online Platform Economy: Big Data on Income Volatility," JP Morgan Chase &Co. Institute, February 2016, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2911293&download=yes ; also, Farrell, Diana, et al., "The Evolution of the Online Platform Economy: Evidence from Five Years of Banking Data." *AEA Papers and Proceedings*, 2019, pp. 362-66.
[135] *Ibid.*

appears to meet a target need as participation in labor platforms is highest among those who experience the highest volatility—the young, poor, and individuals living in the West.

C. Huang, et al. (2019)[136]

Huang presents research examining the relationship between economic downturns and financial stressors in the offline economy in the form of unemployment and the online economy. The "results demonstrate a positive and significant association between local (county) unemployment in the traditional offline labor market and the supply of online workers residing in the same county, as well as significantly larger volumes of online project bidding activity from workers in the same county. Specifically, [they] estimate that a 1% increase in county unemployment is associated with a 21.8% increase in the volume of county residents actively working online at the platform. Further, [their] results suggest significant heterogeneity in the relationship, such that a significantly larger supply of online labor manifests when unemployment occurs in counties characterized by better Internet access, younger and more educated populations, and populations whose social ties are dispersed over a wider geographic area."[137]

D. Irwin (2019)[138]

Irwin's piece is a business reporter's look at trends in the gig economy. He notes that gig-work is transformative in a few select industries (e.g., transportation, piece-meal projects like house-cleaning), but not particularly applicable in many jobs, such as those requiring collaboration or specialized training. He cites other recent literature's conclusions:

a. Share of the workforce earning 1099 income increased by only one percentage point from 2007 to 2016—most of this due to the rise of online platforms (consistent with the BLS survey).

b. Growth in 1099 work was driven by individuals whose primary annual income derives from traditional jobs and who supplement with platform-mediated work.[139] <u>Fewer than half those deriving income from labor ODE work earned more than $2,500 in 2016</u>.[140]

c. There is no evidence that "traditional" W-2 work arrangements are being supplanted by independent contract arrangements reported on 1099s.[141]

d. In 2018, Walmart started allowing workers at its stores to use their phones to swap shifts or volunteer for extra shifts (see further discussion later in this report).

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[136] Ni Huang, et al., "Unemployment and Worker Participation in the Gig Economy: Evidence from an Online Labor Market," SSRN Working Paper, updated September 22, 2019.

[137] The authors examined only one unnamed online gig platform.

[138] Neil Irwin, "Maybe We're Not All Going to Be Gig Economy Workers After All," New York Times, Sept. 15, 2019.

[139] See also, Koustas (2019) ("…many people use the gig work to survive difficult financial moments in their lives — such as being laid off or having their hours cut in a more traditional job. Their earnings from conventional jobs fell in the period just before starting gig work, on average, then recovered.").

[140] *Collins et al., 2019*.

[141] *Collins et al., 2019.*

E. Koustas (2019)[142]

Koustas uses personal finance data in a study to show that households are facing declines in income and a significant running down of assets before entering the gig economy (Uber and Lyft drivers comprised 90% of the data in his sample). In addition, credit constraints were found both before and after entering gig work. By the 13th week following commencement of gig work, earnings losses from non-gig income were more than made up for by gig earnings (less gas, before taxes/depreciation) on average. The implications of this work suggest that the gig economy may serve as a valuable income-smoothing source for participants who are suffering a decline of non-gig earnings and falling assets.

F. Borchert, et. al (2018)[143]

Online labor markets have experienced rapid growth in recent years and allow for long-distance transactions that "offer workers access to a potentially 'global' pool of labor demand. As such, they bear the potential to act as a substitute for shrinking local income opportunities. Using detailed U.S. data from a large online labor platform for microtasks, [the authors] study how local unemployment affects participation and work intensity online. [They] find that, at the extensive margin, an increase in commuting zone level unemployment is associated with more individuals joining the platform and becoming active in fulfilling tasks. At the intensive margin, [their] results show that with higher unemployment rates, online labor supply becomes more elastic. These results are driven by a decrease of the reservation wage during standard working hours. Finally, the effects are transient and do not translate to a permanent increase in platform participation by incumbent users. [These] findings highlight that many workers consider online labor markets as a substitute to offline work for generating income, especially in periods of low local labor demand. However, the evidence also suggests that, despite their potential to attract workers, online markets for microtasks are currently not viable as a long run alternative for most workers,"[144] possibly because of the low wages and/or insufficient level of attractive tasks.

G. Weil (2014, 2018)

In his book Fissured Workplace,[145] David Weil, former Administrator of the Wage and Hour Division of the U.S. Department of Labor under President Obama, describes what he refers to as the "fissuring" of business structures, which are fundamentally changing the nature of employment and work in industries and the economy as a whole. From his perspective, the increasing tendency of companies to turn to external labor sources is not fundamentally driven by technological change (although technology does play an important role in monitoring and oversight of outsourced resources), rather, it is "motivated by capital market demands that major

[142] Dmitri K. Koustas, "What do Big Data Tell Us About Why People Take Gig Economy Jobs?" AER Papers and Proceedings, May 2019.
[143] Katherine Borchert, et al., "Unemployment and Online Labor," Centre for European Economic Research Discussion Paper No. 18-023, April 2018.
[144] *Ibid.*
[145] See also, commentary in Weil, David. 2019. "Understanding the Present and Future of Work in the Fissured Workplace Context." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5(5): 147–65.

businesses focus on the core competencies that provide value to customers and investors and concomitantly shed activities to other entities to carry out those efforts."[146]

Weil describes the core elements comprising fissuring: 1) "companies seeking to focus on their greatest competence from the perspective of customers and especially investors"; 2) shedding "as many as possible of the activities not core to delivering those competencies to other organizations" (third party managers and staffing agencies); and 3) maintaining "tight control of the outcomes of those subsidiary organizations in orbit around its competence through standards, monitoring, and mechanisms of enforcement."[147] "This allows major businesses to have it both ways: benefit from work executed in strict compliance with central corporate objectives and not be required to treat the workers who do it as their employees with the obligations that relationship holds."[148] Weil also argues that "work restructuring arising from fissuring alters wage determination inside and outside firms affected by it and provides an alternative explanation for a growing empirical literature on earnings inequality. The fissured workplace perspective requires different policies for the workplace and labor market than traditional approaches including those regarding worker rights and protections, employment responses to the business cycle, workforce education and training, and job and career mobility."[149]

VI. Research on Pay Rates of ODE Workers

A. Cantarella and Strozzi (Oct. 2019)[150]

Cantarella and Strozzi compare wages and labor market conditions between "individuals engaged in online platform work and in traditional occupations by exploiting individual-level survey data on crowdworkers belonging to the largest micro-task marketplaces, focusing on evidence from the United States and Europe. To match similar individuals, survey responses of crowdworkers from the US and EU have been harmonised with the American Working Conditions Survey (AWCS) and the European Working Conditions Survey (EWCS). [Their] findings indicate that traditional workers retain a significant premium in their earnings with respect to online platform workers, and that those differences are not affected by the observed and unobserved ability of individuals."[151] In particular, the authors estimate that crowdsourcers earn between 70.6% to 68.1% less than comparable workers in ability, while spending nearly as much time working in the platform as their counterparts do in traditional occupations. The authors find that "[t]his holds true also taking into account similar levels of routine intensity and abstractness in their jobs, as well as the time spent working. Moreover, the labour force in crowdworking arrangements appears to suffer from high levels of under-utilisation, with

[146] David Weil. 2019. "Understanding the Present and Future of Work in the Fissured Workplace Context." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5(5): 147–65.
[147] *Ibid.*
[148] *Ibid.*
[149] *Ibid.*
[150] Michele Cantarella and Chiara Strozzi, "Workers in the crowd: the labour market impact of the online platform economy," working paper, Oct. 28, 2019.
[151] *Ibid.*

crowdworkers being more likely to be found wanting for more work than comparable individuals."[152]

The authors conclude that "[a]ll these findings, along with the fact that these individuals do not appear to be looking for other jobs more than 'traditional' workers, relegate crowdworkers into a new category of idle workers whose human whose human capital is not being fully utilised nor adequately compensated."[153]

Note that for both the US and Europe, the crowdwork group includes information on workers from different online platforms –Amazon Mechanical Turk (AMT), Crowdflower, Clickworker, Microworkers and Prolific Academic – thus, the focus is on so called, "micro-tasks" and results may not be generally applicable to other forms of online freelancing marketplaces, such as UpWork, where larger projects are prevalent.

B. Dube, Jacobs, Naidu, and Suri (2018)[154]

The authors find that "On-demand labor platforms make up a large part of the 'gig economy.'" The authors "quantify the extent of monopsony power in one of the largest on-demand labor platforms, Amazon Mechanical Turk (MTurk), by measuring the elasticity of labor supply facing the requester (employer) using both observational and experimental variation in wages."[155] Using two different approaches, the authors find that they both yield uniformly low labor supply elasticities, around 0.1, with little heterogeneity. Dube, et al., use their estimate to infer the distribution of MTurk surplus between workers and requesters, finding that <u>the markdown of wages is quite large, with workers paid less than 20% of their productivity</u>. This compares to 50%-80% for workers in the U.S. economy as a whole, suggesting that employers capture a significant share of surplus created by this online labor-market platform.[156]

The authors posit that "the source of the monopsony power on MTurk likely lies in the information and market environment presented to workers and requesters, together with the absence of bargaining or many margins of wage discrimination. In particular, the tastes different workers have for a given task may be quite dispersed and not easily discerned by requesters, which induces requesters posting a wage to trade-off the probability of acceptance against a lower wage. Further, this may be exacerbated by the information environment facing workers, which makes searching for alternative jobs difficult. Jobs are highly heterogeneous in time required, entertainment value ('fun') to the worker, and the reliability of the requester in approving payments."[157]

C. Research on Ride-Sharing Pay Rates

Researchers have engaged in contentious argument regarding the range of estimated hourly earnings that rideshare drivers are able to achieve after accounting for costs. For example, Jonathan Hall, Uber's economist, found that Uber driver-partners receive higher hourly earnings

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[152] *Ibid.*
[153] *Ibid.*
[154] Arindrajit Dube, et al., "Monopsony in Online Labor Markets," NBER Working Paper, March 2018.
[155] *Ibid.*
[156] Merrick 2018.
[157] Arindrajit Dube, et al., "Monopsony in Online Labor Markets," NBER Working Paper, March 2018.

(before vehicle expenses) than employed taxi drivers and chauffeurs, and as long as driver-partners costs were less than $6.79 per hour, their net earnings would exceed those of taxi drivers and chauffeurs.[158] He also attempted to quantify driver expenses, and found them to be below the $6.79 per hour level. In contrast, Lawrence Mishel of the Economic Policy Institute found that Uber driver-partner earnings were lower than Mr. Hall's estimates, and below the minimum wage in most markets, once accounting for expenses.[159] In addition, the MIT Center for Energy and Environmental Policy Research reported that Uber and Lyft drivers made less than $4 per hour after expenses, but researchers revised this number up to between $8.55 and $10 per hour after Uber challenged the study and the researchers admitted a calculation error.[160] New York City has imposed minimum earnings standards for drivers,[161] Seattle is poised to follow suit,[162] and Los Angeles is studying minimum earnings standards.[163] For its part, Uber and Lyft offered to implement minimum earnings standards in California as part of its negotiations over A.B. 5.[164]

VII. Research on Workplace Flexibility, Benefits, and How Technology Improves Quality Outcomes in the Alternative Workforce

A. Upwork and Edelman Intelligence (2020)[165]

A 2020 study sponsored by Upwork reported that freelancers have a median rate of $20/hour, and freelancers doing skilled services earn a median rate of $25/hour, "earning more per hour than 70% of workers in the overall U.S. economy."[166] Furthermore, the share of those who freelance full-time increased from 17% in 2014 to 36% in 2020. The study found that 50% of freelancers provide "skilled" work. Freelancing provides opportunities for those who otherwise might not be able to work, with 77% of freelancers agreeing that they freelance to have

[158] Johnathan Hall and Alan Krueger, "An Analysis of the Labor Market for Uber's Driver-Partners in the United States", National Bureau of Economic Research Working Paper Series, November 2016, https://www.nber.org/papers/w22843.pdf, (hereafter, Hall 2016).
[159] Lawrence Mishel, "Uber and the labor market: Uber drivers' compensation, wages, and the scale of Uber and the gig economy," Economic Policy Institute, May15, 2018, https://www.epi.org/publication/uber-and-the-labor-market-uber-drivers-compensation-wages-and-the-scale-of-uber-and-the-gig-economy/.
[160] Diana Juan, "Uber and Lyft Drivers' Earnings Study Revised, They Make About $10 an Hour," NB Bay Area, March 7, 2018, https://www.nbcbayarea.com/news/local/uber-and-lyft-drivers-earnings-study-revised-they-make-about-10-an-hour/161211/.
[161] Sarah O'Brien, "Uber, Lyft prices go up in NYC as new driver minimum wage law takes effect," CNN Business, February 1, 2019, https://www.cnn.com/2019/02/01/tech/uber-nyc-rates/index.html.
[162] Groover 2019.
[163] Nelson 2019.
[164] Rapier 2019; Siddiqui 2019.
[165] Upwork and Edelman Intelligence, "Freelance Forward 2020," https://www.slideshare.net/upwork/freelance-forward-2020; see also Barbara Booth, "Skilled freelancers, earning more per hour than 70% of workers in US, don't want traditional jobs," CNBC, October 3, 2019, https://www.cnbc.com/2019/10/03/skilled-freelancers-earn-more-per-hour-than-70percent-of-workers-in-us.html.
[166] Barbara Booth, "Skilled freelancers, earning more per hour than 70% of workers in US, don't want traditional jobs," CNBC, October 3, 2019, https://www.cnbc.com/2019/10/03/skilled-freelancers-earn-more-per-hour-than-70percent-of-workers-in-us.html.

flexibility in their schedule. Sixty percent of freelancers say no amount of money would entice them to take a traditional job, highlighting the net benefits afforded to these workers relative to traditional employment.

B. Federal Reserve Bank of Minneapolis (2018)[167]

Many ODE labor markets offer online review and rating systems that allow workers and employers to vet one another, potentially leading to more efficient and higher-quality outcomes. This study "is the first clean field evidence of the effects of employer reputation in any labor market and is suggestive of the special role that reputation-diffusing technologies can play in promoting gig work. Just as employers face uncertainty when hiring workers, workers also face uncertainty when accepting employment, and bad employers may opportunistically depart from expectations, norms, and laws. However, prior research in economics and information sciences has focused sharply on the employer's problem of identifying good workers rather than vice versa. This issue is especially pronounced in markets for gig work, including online labor markets, where platforms are developing strategies to help workers identify good employers."[168] The authors build a theoretical model for the value of such reputation systems and test its predictions on the online platform Amazon Mechanical Turk (MTurk), "where employers may decline to pay workers while keeping their work product and workers protect themselves using third-party reputation systems, such as Turkopticon."[169] The authors find that: "(1) a good reputation allows employers to operate more quickly and on a larger scale without loss to quality; (2) in an experimental audit of employers, working for good-reputation employers pays 40 percent higher effective wages due to faster completion times and lower likelihoods of rejection; and (3) exploiting reputation system crashes, the reputation system is particularly important to small, good-reputation employers, which rely on the reputation system to compete for workers against more established employers."[170] Thus, the rating/feedback feature, which is increasingly common on online platforms promotes a more disciplined marketplace from which employees benefit.

C. Intuit and Emergent Research (2016)[171]

Survey research by Intuit and Emergent Research found that most ODE workers are satisfied with their work; 50% highly satisfied; 17% satisfied. Below is the percentage of survey respondents that strongly or somewhat agreed with the following:

- "I always wanted to be my own boss." (71%)
- "I do not like having to answer to a boss. (53%)

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[167] Alan Benson, et. al., "Can Reputation Discipline the Gig Economy? Experimental Evidence from an Online Labor Market," University of Minnesota and Federal Reserve Bank of Minneapolis, Institute Working Paper 16, December 2018.
[168] *Ibid.*
[169] *Ibid.*
[170] *Ibid.*
[171] "Dispatches from the New Economy: The On-Demand Worker Study," Intuit and Emergent Research, 2016. https://intuittaxandfinancialcenter.com/wp-content/uploads/2017/06/Dispatches-from-the-New-Economy-Long-Form-Report.pdf.

- "I will not go back to relying solely on a traditional job." (50%)
- "I would rather have a traditional job than be my own boss." (15%)
- Most frequently cited reason for working in ODE is to earn more money. (57%)
- Second most frequently cited reason for working in ODE is to create and control own schedule. (46%)
- 91% of respondents said they like controlling decisions about where, how and when they work.
- What workers do not like about the ODE: Not enough work (62%), unpredictable income (53%); unfair pay (41%); growing competition (31%); lack of job security (27%); lack of benefits/health insurance (21%).

Many workers participating in the alternative workforce do not often place a high priority on benefits/protections such as retirement savings and unemployment insurance.[172]

- For example, about half (49 %) of Uber's driver partners currently receive employer-provided health insurance from their employer at another job or from a spouse or other family member's job.
- As cited above, only 21% of Intuit respondents were unhappy with the lack of benefits.

Survey research by GSSG found that 27% of independent worker respondents cited low pay/unpredictable income as the least attractive attribute of freelancing. About 4% cited the lack of benefits or insurance as the least attractive aspect about freelancing.[173]

D. Mas and Pallais (2016)[174]

The authors estimate employees' willingness to pay ("WTP") for alternative work arrangements from data collected at a recruitment drive for a national call center (alternatives to a 9-5 job include flexible scheduling, working from home, and positions that give the employer discretion over scheduling), which they validate using a nationally-representative survey. They find that while the great majority of workers are not willing to pay for flexible scheduling relative to a 9-5 schedule, the average worker is willing to give up to 20% of wages to avoid a schedule set by an employer on a week's notice. However, a tail of workers with high WTP allows for sizable compensating differentials (e.g. some workers are willing to give up 8% of wages to work from home—mostly women with young children). This group is slightly more likely to be in jobs with these amenities, but the differences are not large enough to explain most of the wage gap.

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[172] Hall 2016.
[173] Robert Jones, Survey commissioned by the Coalition for Workforce Innovation, GS Strategy Group, January 2020, p. 7.
[174] Alexandre Mas and Amanda Pallais, "Valuing Alternative Work Arrangements," NBER working paper, September 2016.

E. Faster Pay Relative to Typical Traditional Employment Practices

Technology has been rolled out to allow some alternative workers to take advantage of company-sponsored options that allows workers (sometimes for a small fee) to get paid notably faster than typical traditional employees.[175] For example, Uber drivers can opt to get paid up to five times a day[176] and Lyft drivers are paid weekly compared with approximately every two weeks for typical non-tipped employees.[177] Some Lyft driver earnings are eligible for "express pay" which means they can be paid out in a matter of hours or days depending on the bank's processing times.[178] These options can provide critical access to funds in lieu of more costly options such as overdraft fees or payday loans.

VIII. Ridesharing Platforms

Ridesharing platforms such as Uber and Lyft have been a particular focus of research on the alternative workforce and can help inform the debate on whether drivers should be classified as independent contractors or employees, or whether a new category of work may be preferable in light of worker characteristics. However, a number of the sources that describe worker characteristics and preferences are based on survey data that is not well documented. Furthermore, ridesharing has been especially hard-hit by the Covid-19 pandemic, and it remains unclear how the pandemic will affect the industry in the long-term.

A. Benner, Johansson, Feng, and Witt (2020)[179]

One recent study by Benner, et. al., analyzed a "[r]epresentative sample of on-demand work being done in the city, not of all on-demand workers" in the San Francisco area. The authors surveyed users of Uber, Lyft, Doordash, GrubHub, Instacart, and Shipt. Data collection was halted due to Covid-19, but a survey on the impact of Covid was also conducted. The survey found an on-demand workforce that was primarily male, racial/ethnically diverse, majority foreign-born, median age 40 in ride-hailing and 31 in delivery work, and with a minority of ridehail drivers living in San Francisco but a majority of delivery drivers living there. In contrast to the findings of many other studies mentioned here, this study found that most on-demand workers worked more than 30 hours per week, and most derived the majority of their income from on-demand work. The study also found that on-demand workers endure difficult economic

[175] See, for example, Telis Demos, "Startups Test Ways to Speed Up Arrival of Payday for Workers," The Wall Street Journal, August 12, 2019; BLS, "How frequently do private businesses pay workers?" May 2014, https://www.bls.gov/opub/btn/volume-3/how-frequently-do-private-businesses-pay-workers.htm; Sarah Gonzalez, "Some Of The Biggest Companies Are Reinventing How We Get Paid And How Often," NPR, Planet Money, December 19, 2019, https://www.npr.org/2019/12/19/789949319/some-of-the-biggest-companies-are-reinventing-how-we-get-paid-and-how-often.
[176] Telis Demos, "Startups Test Ways to Speed Up Arrival of Payday for Workers," The Wall Street Journal, August 12, 2019.
[177] Lyft, "How and when driver pay is calculated," https://help.lyft.com/hc/en-us/articles/115013080008-How-and-when-driver-pay-is-calculated;
[178] Lyft, "Express pay," https://help.lyft.com/hc/en-us/articles/115012923167.
[179] Benner, Chris, et al.,"On-demand and On-the-edge: Ride-hailing and delivery workers in San Francisco," May 5, 2020.

circumstances, with 46% supporting others with their earnings. Additionally, this survey found 21% of drivers had no health insurance, while 30% used public or public-access health insurance. Nearly half had little emergency savings, and 15% received some form of public support (e.g. food stamps or housing assistance). They valued a flexible schedule but also valued “fair pay” and “predictably high pay.” The study found median earnings of $360 per week for ridehail workers and $224 per week for delivery workers after accounting for expenses. As a result of Covid-19, many workers shifted from ridehailing to delivery, 24% stopped using the platforms altogether, over half had lost more than $500 per week in earnings, 76% had seen a significant decline in engagements, and 28% were still accepting engagements. Over half (55%) said their app was not doing enough to respond to the virus (such as suggesting procedures and providing PPE).

B. Cook, Diamond, Hall, List, Oyer (2020)[180]

Cook, et. al., document a 7% gap in hourly earnings between male and female drivers using the Uber platform. The authors find that this gap can be attributed to: experience on the platform (men tend to drive more hours overall and do not exit the platform as often), preferences about where to work and personal safety (“male drivers tend to live near more lucrative locations and because men earn a compensating differential for their willingness to drive in areas with higher crime and more drinking establishments”), and driving speed (men tend to drive faster). The authors do not find that the difference is explained by differing preferences between men and women on working “specific hours, a return to within-week work intensity, or customer discrimination.” The authors conclude that despite the highly flexible Uber platform and the inability for riders to gender discriminate by choosing to have a male or female driver, “women’s relatively high opportunity cost of non-paid-work time and gender-based differences in preferences and constraints can sustain a gender pay gap.”

C. Lyft Economic Impact Report (2020)[181]

Lyft reports statistics about its drivers on an annual basis. Some notable findings from its 2020 report include:

- 90% of respondent drivers drove less than 20 hours per week
- 23% of respondent drivers were over age 50 (a different finding than “The Rideshare Guy” survey)
- 66% of respondent drivers identified with a minority group (far higher than the result in “The Rideshare Guy” survey)
- 23% of respondents were female
- 93% of respondents reported that a flexible schedule was very or extremely important.

[180] Cook, Cody, et al., “The Gender Earnings Gap in the Gig Economy: Evidence from over a Million Rideshare Drivers,” May 2020.
[181] Lyft, Economic Impact Report 2020, https://www.lyftimpact.com/stats/national.

D. Williams and Edelman Intelligence (2020)[182]

Brad Williams of Capitol Matrix Consulting performed a study of the potential "impacts of eliminating independent contractor status for California app-based rideshare and delivery drivers."[183] Williams also reviewed the results of a survey performed by Edelman Intelligence and commissioned by Uber and other companies. Williams finds that app-based companies would have to curtail or eliminate existing driver flexibility, instead offering drivers fixed working hours and driving locations. Williams also predicts "fewer jobs, less income, and lower tax receipts." Reviewing the survey performed by Edelman Intelligence, Williams reports that "the loss of flexibility that would come with employee status would be a non-starter for the majority of current drivers. Almost 90 percent of drivers began driving because they needed a job where they could control their work hours, and over two-thirds of the respondents indicated they would stop driving if they lost this flexibility." Further, "[f]or 70 percent of drivers, income from app-based driving is supplemental to other jobs." Yet Williams reports that if independent contractor status was lost, driver opportunities would decline 75 to 90 percent with higher expenses for app-based companies, higher prices, less coverage, and reduced consumer demand.

The survey of drivers reported that drivers were majority male, nearly half millennials, 50% white, 84% driving fewer than 40 hours per week, and 4 out of 5 using more than one app. About 2 in 3 drivers said they would stop using the apps if the flexibility they enjoyed as independent contractors was lost, and 86% began driving because they needed a work option with a flexible schedule. About 3 in 4 said their driving schedule changes from week to week. About 3 in 4 drivers also said the income they make from app-based work was supplemental and not primary income. About 2 in 3 drivers said app-based work provided an opportunity to earn money after losing a job or when hours were cut. The survey reports that 72% of drivers supported a ballot measure that would allow them to maintain their independent contractor status.

E. Chen, Chevalier, Rossi, and Oehlsen (2019)[184]

The authors use data on 200,000 Uber drivers to examine the benefits to drivers from labor supply flexibility and the costs from nonstandard hours. They identify the taste for flexibility as being driven by time variation in a worker's reservation wage. Specifically, "Our identification strategy, loosely speaking, is simple: if we see a driver supplying labor in an hour when the expected wage is $15/hour and choosing not to supply labor in an hour when the expected wage is $25/hour, controlling for a variety of other factors, we can infer that the driver's reservation wage is time varying. Furthermore, under various assumptions, we can make inferences about the driver's willingness to pay (if any) to avoid a counterfactual employment relationship that would require the driver to work during her high reservation wage hours or would prevent the driver from working during her low reservation wage hours." The authors find that there is "tremendous variation in driver behavior across drivers and within drivers across time." Further,

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[182] Williams, Brad, "Impacts of Eliminating Independent Contractor Status for California App-Based Rideshare and Delivery Drivers," July 2020; Edelman Intelligence, "California App-Based Driver Survey," June 2020.
[183] *Ibid.*
[184] Chen, M. Keith, et al., "The Value of Flexible Work: Evidence from Uber Drivers," Journal of Political Economy, 2019, Vol. 127, No. 6, 2735-2794.

"the particular hours driven by a given driver vary considerably, even conditioning on the driver working sometime in the day." The authors find that drivers would significantly reduce the number of hours they drive if there were constraints on when they worked, and that removing these constraints significantly increases surplus.

F. Dubal (2019)[185]

Based on interviews from 2016, the article details drivers' preferences regarding employee versus independent contract status. Unlike most of the authors cited in this literature review, Dubal is a law professor rather than economist. The information provided in the story is based on "three years of ethnographic research amongst Uber drivers [which included a survey of 214 Uber drivers in San Francisco] and driver groups and over fifty semi-structured qualitative interviews." Notable statements from the paper include:

- "Regardless of gender, immigration status, and whether Uber driving was their only, primary, or supplemental job, a majority of Uber drivers stated they preferred to be independent contractors. Despite this, grassroots ride-hailing driver associations in California supported and even advocated for the passage of AB5, affirming driver commitment to employee status as a path to economic security and resistance."
- The author criticizes as misleading because of leading and multi-faceted survey questions, previous research that concluded drivers prefer independent contractor status.
- Based on her own survey results (based on her ethnographic research which included a survey of 214 Uber drivers in San Francisco), the author states, "Unsurprisingly, a majority of drivers who indicated a preference for employee status—79 percent—stated that they wanted the security and/or benefits that come with employment. Of those who preferred to be treated as independent contractors, 67 percent stated that this answer was informed by a need or desire for scheduling flexibility and/or autonomy on the job."
- "Other survey answers explaining a preference for independent contractor classification included 5 percent of drivers who indicated that they did not know the difference between the two statuses; 4 percent of drivers who said that they did not deserve employee benefits because they worked part-time (also a legal misperception); and 6 percent who were expressly ambivalent—either would be fine."
- "Uber driver respondents said they unequivocally needed and wanted the protections and benefits that employment status offered, but many were afraid of what a company like Uber would do if they embraced their role as 'employer.' Drivers, in conceptualizing their fears, had a strong sense of the structural and instrumental power of the company. Their ambivalence was fueled by what a

[185] V.B. Dubal, "An Uber Ambivalence: Employee Status, Worker Perspectives, & Regulation in the Gig Economy," Working Paper, November 2019, https://ssrn.com/abstract=3488009.

terrible employer Uber could be, how Uber would never agree to an employment model, and fears that the company would take away their flexibility—not because employee status necessitates a shift schedule—but just because they could."

- "Among the core RDU [Rideshare Drivers United] organizers, the need for basic benefits and their anger at the gig companies trumped these lingering anxieties about what would happen to their schedule flexibility. 'That's our next fight,' Nicole disclosed. 'First, we get this bill passed, and then we raise hell when they say we can't have flexibility. We are going to have to fight for that, too. But right now, we are just fighting for our freedom. Our freedom to put food on the table and pay our rent."

G. Hall, Horton, and Knoepfle (2019)[186]

Hall, et. al. study how pricing on the Uber App affects the market equilibrium. The authors find that when fares increase, drivers make more money per trip, and initially make more money per hour worked. As a result of these higher earnings, drivers work more hours, but as hours increase, drivers spend a smaller fraction of their time actually transporting customers. This offsets the increased earnings from pricing, leading to an unchanged hourly earnings rate overall.

H. The Rideshare Guy (2019)

While not scientifically-designed, an annual survey performed by Harry Campbell, known as "The Rideshare Guy," is a widely cited survey of rideshare drivers.[187] His most recent data comes from an emailed survey request sent to 70,000 subscribers, with some data also coming from social media and direct website traffic. While his response rate was low, he did receive 948 survey responses. Notable findings from the survey include:

- For 52.9% of respondents, pay was the most important aspect of being a driver. For 36.7% of respondents, it was flexibility. Benefits were only the most important aspect to under 5% of respondents.
- 55.2% of respondents considered themselves part time drivers, and 44.8% considered themselves full-time drivers.
- Only 44.5% of Uber driver respondents agreed that they were satisfied with their experience using Uber in 2019, which is down from 58.2% in 2018. 52.4% of Lyft drivers were satisfied with their experience using Lyft in 2019.
- 76.6% of respondents reported using at least two services in 2019.
- Over half of respondents thought Uber and Lyft were not doing enough to ensure the safety of drivers.

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186 Hall, Jonathan, et al., "Pricing Efficiently in Designed Markets: The Case of Ride-Sharing," May 10, 2019.
187 Harry Campbell, "The Rideshare Guy 2019 Reader Survey," https://docs.google.com/document/d/1Ep8Rp4gQk6vZfwNm-XthBkM0plof24E4PBxKoOMvYgk/edit.

- 18.8% of respondents were female (vs. 1% of New York taxicab drivers); 72.4% of respondents were age 51 or over.
- 78.3 of respondents were white (vs the national average of 61.3%)
- 48.7% of respondents had earned at least a bachelor's degree (vs. the national average of 33%)

I. Hall and Krueger (2018)[188]

This paper surveys Uber drivers. Hall was an employee of Uber and Krueger a consultant of Uber when the paper was written, which facilitated their access to the Uber data. The paper performs significant analysis of historic Uber data and relies on surveys of 601 "driver-partners" in December 2014 and 632 in November 2015. Notable findings include:

- "Of Uber's driver-partners, 19% are under age 30, and 24.5% are age 50 or older. By contrast, taxi drivers and chauffeurs are substantially older, with 9% under age 30, and 44% age 50 or older." This is consistent with findings report by Lyft and inconsistent with survey results from "The Rideshare Guy."
- "Women make up 14% of Uber's driver-partners, which exceeds the percentage of taxi drivers and chauffeurs who are women in the same markets (8%) but is less than the share of women in the workforce overall."
- "Uber's driver-partners are more likely to identify their ethnicity/race as white non-Hispanic than are taxi drivers and chauffeurs in the same areas, although they are less likely to identify as white non-Hispanic than the workforce as a whole in those areas."
- Uber's driver-partners are more educated than an average sample of the U.S. population.
- "Approximately 80% of driver-partners in 2014 reported that they were working full- or part-time hours just before they started driving on the Uber platform. Only 8% of driver-partners in 2014 (and 10% in 2015) said they were unemployed just prior to partnering with Uber. This low percentage is notable given that, for the economy overall, about 25% of new hires came from unemployment and 70% came from nonemployment in 2014 and 2015. The large share of drivers who partnered with Uber while they had another job suggests the role that Uber plays in supplementing individuals' income from other sources."
- "That more than one-third of driver-partners joined the Uber platform without actively searching for a job suggests that Uber provided a new alternative that enticed many people to engage in a work activity who might not have done so otherwise."

[188] Hall, Jonathan V. and Alan B. Krueger, "An Analysis of the Labor Market for Uber's Driver-Partners in the United States," ILR Review, 71(3), May 2018, pp. 705–732.

- "The most common reasons (combining major and minor reasons) were "to earn more income to better support myself or my family" (91%); "to be my own boss and set my own schedule" (87%); "to have more flexibility in my schedule and balance my work with my life and family" (85%); "to help maintain a steady income because other sources of income are unstable/unpredictable" (74%)."
- "Driving on the Uber platform provides an important source of income for driver-partners. For one-fifth of driver-partners (20%), Uber is their only source of personal income; and for another 12% Uber is their largest but not only source of income. Nearly half of driver-partners view income earned on the Uber platform as a supplement to their income but not a significant source (48%)."
- "when asked directly (Q52), 'Which of the following would you most prefer regarding your driving with Uber?' with responses describing an employment relationship and an independent contractor relationship, 79% chose the latter."

J. Berg and Johnston (2018)[189]

The authors criticize Hall and Krueger's highly cited survey of Uber drivers. However, Berg and Johnston do not have their own data set with which to provide any additional analyses, so their article critiques but does not provide additional contribution to the literature. The authors discuss Hall and Krueger's "methodological problems, including sample bias, leading questions, selective reporting of findings, and an overestimation of driver earnings, which do not account for the full range of job-related expenses and is based on outdated data. The authors also argue that Hall and Krueger make unsubstantiated claims that extend beyond the scope of their research and ignore a rapidly growing literature that is critical of the Uber model as well as the broader for-hire vehicle industry in which Uber operates." The authors' criticisms of Hall and Krueger's work include:

- A low survey response rate of around 10%, and high risk of non-response bias given that the survey was company-sponsored.
- The survey does not ask the number of hours a person drives in a typical week, and Hall and Krueger do not explore possible difference between "the part-time and full-time workforce."
- Hall and Krueger sometimes include "double-barreled" questions which allow only one response for two questions. Hall and Krueger should have asked how schedule flexibility, income guarantees, and job-related benefits were valued separately from asking if drivers preferred independent contractor status.
- As to satisfaction using Uber, drivers were not offered the possible response of "neither satisfied nor dissatisfied."
- Hall and Krueger understate Uber driver expenses and compare Uber driver earnings to taxi driver employees, even though most taxi drivers are self-employed

[189] Berg, Janine and Hannah Johnston, "Too Good to Be True? A Comment on Hall and Krueger's Analysis of the Labor Market for Uber's Driver-Partners," ILR Review, Vol 72, Issue 1, 2019.

and therefore not representative of the OES data the authors utilize to benchmark earnings.

- Hall and Krueger provide an incomplete labor market analysis that focuses only on rideshare drivers, while ignoring the effects of ridesharing app services on taxi drivers and other types of for-hire-vehicle (FHV) drivers, despite the paper's comparisons of Uber to taxis.

K. Castillo, Knoepfle, and Weyl (2018)[190]

Castillo, et. al. study how surge pricing on ridehail platforms results in the efficient use of drivers' time. The authors explain (and model, using Uber data) that high demand depletes a ridehail platform of available drivers, resulting in cars being sent to pick up riders that are far away. Time wasted traveling for distant pickup can decrease driver earnings and lead them to exit the market, which exacerbates the problem. Implementing surge pricing, in which prices are higher during periods of high rider demand, eliminates this potential market failure.

L. Koustas (2018)[191]

Koustas analyzes data on about 18,000 rideshare drivers from a large personal financial management aggregator. Koustas finds that "In the period after starting ridesharing, rideshare income replaces 73 percent of income losses from main payroll jobs. Sensitivity of spending to main income falls by 82 percent, suggesting substantial increases in consumption smoothing. Matching these empirical findings to a structural intertemporal labor supply model with credit and labor frictions implies benefits from flexible second jobs of over $1,800 per year. The results suggest the value of leisure is relatively low for this group of workers." Said differently, the author's results imply that households would be willing to pay on average around $1,800 per year for access to flexible jobs.

M. Angrist, Caldwell, and Hall (2017)[192]

The authors observe that rideshare drivers pay a proportion of their fares to platform operators, whereas taxi drivers typically pay a fixed amount for use of the taxicab independent of their earnings. The authors compare these compensation models from the driver's point of view by experimenting with payment structure for random samples of Boston Uber drivers, for example offering them opportunities to lease a virtual taxi medallion that eliminates Uber's fee. The authors find that the experimental virtual lease program was not used by many drivers whom it would have benefitted financially. These results suggest that rideshare drivers gain considerable surplus due to the opportunity to drive without having to lease a taxi medallion for a specific period of time, as many taxicab drivers do in order to be able to perform transportation services.

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[190] Castillo, Juan Camilo, et al., "Surge Pricing Solves the Wild Goose Chase," March 2018.
[191] Koustas, Dmitri, "Consumption Insurance and Multiple Jobs: Evidence from Rideshare Drivers," working paper, October 31, 2018.
[192] Angrist, Joshua D., et al., "Uber vs. Taxi: A Driver's Eye View," No. w23891, National Bureau of Economic Research, 2017.

N. Eisenbrey and Mishel (2016)[193]

The authors examine Harris and Krueger's[194] "empirical claim that the 'immeasurability of work hours' for gig workers places them in a gray area between employee and independent contractor and negates the possibility of applying the Fair Labor Standards Act (FLSA) to work done through some digital apps."[195] Eisenbrey and Mishel's paper "is limited to the issues of measuring and controlling drivers' hours and the implications for establishing the need for a third status of independent worker."[196] The authors argue that for a host of reasons that Uber drivers are employees. For example, at least in ride-sharing, drive work hours are actually tracked closely, drivers do not "set their own fares or freely choose their own customers, their performance is measured and controlled by Uber, their driving is essential to Uber's business, and the economic reality is that they are not independent businesses but small cogs"[197] in the digital platform business model.

O. Chen and Sheldon (2015)[198]

The authors study Uber data on "a randomly-drawn subset of UberX partners in Chicago, Washington DC, Miami, San Diego, and Seattle. For these partners, [the authors] observe ever trip they provided on the Uber platform between September 4th, 2014, and July 4th, 2015. This comprises roughly 25 million trips." The authors observe that drivers using the Uber App drive more when earnings are high, and "flexibly adjust to drive more at high surge times." Specifically, "in response to surge pricing, Uber driver-partners choose to extend their sessions and provide significantly more rides on the Uber platform." This contrasts with the idea of "income-targeting" which predicts that "a taxi driver has a daily income target, after which they are much more likely to stop providing rides." If Uber drivers exhibited such income-targeting, they would reach their targets faster and stop sooner when surge pricing was in effect. However, the authors do not find evidence that this occurs.

P. Hall, Kendrick, and Nosko (2015)[199]

The authors analyze Uber data in two high-demand periods—one where "surge pricing" (i.e., high prices during times of increased demand) is operating as normal, and one where surge pricing was absent due to a technical problem. The authors find that "efficiency gains [due to surge pricing] came from both an increase in the supply of driver-partners on the road and from an allocation of supply to those that valued rides the most. Most of the increase in prices was passed on to driver-partners, who benefited from the increased demand." In the absence of surge pricing, "Drivers were likely less attracted to the platform while, at the same time, riders requested rides in increasing numbers because the price mechanism was not forcing them to

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193 Mishel 2016.
194 Harris and Krueger 2015.
195 Mishel 2016.
196 Mishel 2016.
197 Mishel 2016.
198 Chen, M. Keith, and Michael Sheldon, "Dynamic Pricing in a Labor Market: Surge Pricing and Flexible Work on the Uber Platform," December 11, 2015.
199 Hall, Jonathan, Cory Kendrick, and Chris Nosko, "The Effects of Uber's Surge Pricing: A Case Study," available at https://www.valuewalk.com/wp-content/uploads/2015/09/effects_of_ubers_surge_pricing.pdf.

make the proper economic tradeoff between the true availability of driver-partners and an alternative transportation option. Because of these problems, completion rates fell dramatically and wait times increased, causing a failure of the system from an economic efficiency perspective." Finally, the authors argue that the Uber app effectively balances supply and demand (when surge pricing is in operation) because regardless of demand levels, when surge pricing was in effect, price signals managed supply such that rides were almost always less than 5 minutes away.

IX. How are other countries addressing flexible work arrangements?

A. European Union[200]

In April 2019, the European Parliament adopted measures that will require employers to inform all workers (including those on atypical contracts and in non-standard jobs, such as gig economy workers) about "essential aspects" of their employment on their first day, including:

- Description of their duties
- Starting date and pay information
- Indication of what a standard working day is, or reference hours
- Right to compensation for late cancelling of work
- Only one probationary period, lasting a maximum of six months
- Allow employees to have other jobs, banning "exclusivity clauses"

The new rules would apply to anyone being paid to work at least 12 hours per four weeks on average. This would include on-demand, intermittent, and platform workers. EU countries would have three years in which to align their legislation with the new rules.

B. U.K.

The example of Hermes in the U.K. recognizes the heterogeneity of gig workers. Hermes, a courier firm, struck a deal in a collective bargaining agreement (following an employment tribunal's ruling that couriers were being misclassified) with the UK's GMB drivers' union (also providing trade union recognition for gig workers).[201] Hermes drivers became able to opt-in to a "self-employed plus" status, which included a minimum wage and up to 28 days of paid leave.

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[200] "Gig economy: EU law to improve workers' rights (infographic)," Europeal Parliament, September 4, 2019, https://www.europarl.europa.eu/news/en/headlines/society/20190404STO35070/gig-economy-eu-law-to-improve-workers-rights-infographic.

[201] Haroon Siddique, "Hermes couriers are workers, not self-employed, tribunal rules," The Guardian, June 25, 2018, https://www.theguardian.com/business/2018/jun/25/hermes-couriers-are-workers-not-self-employed-tribunal-rules.

Drivers opting in would have to drive delivery routes chosen by Hermes. Those who do not opt in can continue as freelancers with more flexibility but without the same benefits.[202]

C. India

In late 2019, the labour and employment ministry of India proposed the Code on Social Security, 2019, in which it will formally recognize 'gig workers' and 'platform workers' and grant them the right to life and disability coverage, and health benefits.[203] The law states that a gig worker as a "person who performs work or participates in a work arrangement and earns from such activities outside of traditional employer-employee relationship."[204] A platform worker is a person who is part of an organization that "uses an online platform to access other organizations or individuals to solve specific problems or to provide specific services in exchange for payment."'[205] However, these workers will not be entitled to gratuity benefits[206] or benefits under the Employees' Provident Fund and Employees' State Insurance schemes, maternity benefits or minimum wage obligations.[207] At present, gig workers are typically treated as independent workers and lack any social security cover as they are not part of India's labour law legislation. A recent report by Noble House estimated that 70% of the companies in India hired gig workers at least once for major organizational work in 2018.[208]

D. Canada, Italy, and Spain[209]

The authors compare and contrast three different countries' approaches (Canada, Italy, and Spain) to creating a third employment category and conclude that only in Canada does the third category seem "to have worked well in terms of expanding the coverage of the laws to an increasing number of workers."[210] Below is a summary of each country's experience.

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[202] Michael Hibbs, "Could Hermes' self-employed-plus status revolutionise the gig economy?" Personnel Today, February 7, 2019, https://www.personneltoday.com/hr/why-hermes-self-employed-plus-status-could-revolutionise-the-gig-economy/.
[203] Somesh Jha, and Neha Alawadhi, "Gig workers set to come under labour laws," Rediff.com, September 6, 2019, https://www.rediff.com/business/report/gig-workers-set-to-come-under-labour-laws/20190926.htm, (hereafter, Alawadhi 2019); Somesh Jha, "Challenges of writing labour laws for India's gig workers," Rediff.com, October 18, 2019, https://www.rediff.com/business/report/challenges-of-writing-labour-laws-for-gig-workers/20191018.htm, (hereafter, Jha 2019).
[204] Alawadhi 2019.
[205] Alawadhi 2019.
[206] "Gratuity is a lump sum that a company pays when an employee leaves an organization, and is one of the many retirement benefits offered by a company to an employee." See, Denzan Shira, "The Applicability and Calculation of Gratuity in India," India Brefing, February 4, 2019, https://www.india-briefing.com/news/applicability-calculation-gratuity-india-6435.html/ for a discussion on eligibility and calculation. See also, Alawadhi 2019.
[207] These are retirement plans in India, operating similarly to a 401(k) plan in the U.S. See, Jha 2019; Sunil Dhawan, "What is EPF Scheme and How to Calcuate PF balance?" The Economic Times, August 28, 2020, https://economictimes.indiatimes.com/wealth/earn/all-about-employees-provident-fund-scheme/articleshow/58906943.cms.
[208] Alawadhi 2019.
[209] Miriam A. Cherry and Antonio Aloisi, "'Dependent Contractors' in the Gig Economy: A Comparative Approach," *American University Law Review*, Vol. 66(3), 2017. (Hereafter, *Cherry and Aloisi, 2017*).
[210] *Ibid.*

i. Canada

Canada recognizes the legal status of a "dependent contractor".[211] A dependent contractor sits in the land in-between an employee and an independent contractor.[212] The classification of dependent contractor turns on the issue of *exclusivity* (or near-exclusivity) of the relationship between the parties. Canadian courts have found that "substantially more than 50% of billings" is needed to find economic dependency. Further, "[a]n independent contractor does not become dependent by virtue of length of service or because they can only do certain kinds of work with the contracting party."[213] If a worker is categorized as a dependent contractor, he is entitled to notice[214] and termination pay that is on par with notice period and termination pay granted to employees.[215] Additionally, dependent contractors may claim the rights provided by employment standards and workers compensation legislation.[216] In Canada, there is no at-will employment and regular employees are entitled to notice and termination pay before being let go. While independent contractors have no such rights, dependent contractors do.[217]

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[211] Melanie Crowley, Danny J. Kaufer, and Lucas Munoz, "The Gig Economy and Precarious Workers," The American Employment Law Council, 27th Annual Conference Ojai, California, October 23, 2019, p. 38. (Hereafter, *Precarious Workers, 2019*); for a detailed discussion of Canadian employment issues associated with the gig economy, see Danny J. Kaufer, "The Gig Economy: A Canadian Perspective," a paper the author previously presented at the International Labor and Employment Committee of the American Bar Association in Dublin, Ireland, May 10, 2017.

[212] See, for example, *Cherry and Aloisi, 2017*. We understand that the passage of legislation in Canada "in the 1970s technically created a third category of 'dependent contractors' through amending the definition of "employee" in various statutes. The practical result of the "dependent contractor" category was to expand the definition of employee and to bring more workers under the ambit of labor law protection. As a result, there was increased coverage and a provision for a safe harbor for workers in need of protections based on economic dependency."

[213] Field Law, "How Dependent Must a Dependent Contractor Be?" September 5, 2019, https://www.jdsupra.com/legalnews/how-dependent-must-a-dependent-73779/.

[214] "When an employee's job is over, the amount of notice can be set by contract or governed by common law in each province. Courts establish common law through their decisions. For example, minimum notice in Ontario is eight weeks after eight years' service, but in Alberta, it is eight weeks after 10 years' service. In addition, the Ontario statute requires minimum severance pay in addition to minimum notice, whereas the other provinces do not require minimum severance pay." SHRM, "To Fire Employees in Canada, You Need a Reason and Notice," May 30, 2019, https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/global-canada-termination-notice.aspx.

[215] Elise Calvert and Jonathon Ward, "Three is a crowd: Employees, independent contractors, & dependent contractors," Lexology, September 24, 2019, https://www.lexology.com/library/detail.aspx?g=da715ce7-4529-4d2f-af5b-047fb752e388; SHRM, "To Fire Employees in Canada, You Need a Reason and Notice," May 30, 2019, https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/global-canada-termination-notice.aspx.

[216] *Precarious Workers, 2019*, p. 40.

[217] *Precarious Workers, 2019*, p. 38.

Furthermore, labor relations statutes in Canada, such as the Ontario Labour Relations Act, give dependent contractors (as the Act defines this group)[218] the right to unionize.[219] In practice, gig economy workers seeking unionization would first need to show that they meet the definition of employee or dependent contractor under the relevant provincial or federal statute, prior to commencement of the applicable union certification process.[220]

In February 2020, the Ontario Labour Relations Board, in the first ruling of its kind, ruled that food couriers working in Toronto and Mississauga for Foodora (an app-based food delivery service) were dependent contractors under the Ontario Labour Relations Act, giving them the right to join a union.[221]

ii. Italy

Beginning in 1973 in Italy, businesses used the presence of a third category of worker "parasubordinato,"[222] an intermediate category of worker situated between employee and independent contractor, "to evade regulations applicable to employees, such as social security contributions. In essence, the quasi-subordinate category created a loophole that actually resulted in *less* protection for workers as an unintended consequence," as "most of these quasi-subordinate workers would all previously have been classified as employees."[223] Since 2015, the third category's use has been extremely limited.[224]

iii. Spain

In 2007, the Spanish legislature crafted a third category of worker known as "*Trabajador Autonomo Economicamente Dependiente*" (TRADE or economic dependent self-employed worker). "The distinction between the employee and the TRADE categories lies in the notion of

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[218] The Act defines dependent contractor as "a person, whether or not employed under a contract of employment, and whether or not furnishing tools, vehicles, equipment, machinery, material, or any other thing owned by the dependent contractor, who performs work or services for another person for compensation or reward on such terms and conditions that the dependent contractor is in a position of economic dependence upon, and under an obligation to perform duties for, that person more closely resembling the relationship of an employee than that of an independent contractor." See Labour Relations Act, Section 1(1). The Act also stipulates that an employee under the Act includes a dependent contractor. See, also, Canadian Union of Postal Workers, Applicant v Foodora Inc. d.b.a., Foodora, OLRB Case No: 1346-19-R, decided February 25, 2020. (Hereafter, *Foodora Ruling, 2020*).
[219] Other statutes include the British Columbia *Labour Relations Code,* R.S.B.C. 1996, c. 244, s. 1 and the *Saskatchewan Employment Act,* S.S. 2013, c. S-15.1, s. 6-1 (h) (i), (ii), (iii).
[220] *Precarious Workers, 2019,* pp. 51-52.
[221] *Foodora Ruling, 2020;* see also, Sara Mojtehedzadeh, "Foodora couriers win right to join a union in an 'historic precedent' for gig economy workers", The Star, February 25, 2020, https://www.thestar.com/news/canada/2020/02/25/foodora-couriers-win-right-to-join-a-union-in-an-historic-precedent-for-gig-economy workers.html#:~:text=The%20Ontario%20Labour%20Relations%20Board,workforce%20in%20Canada%20to%20unionize.&text=Foodora%20couriers%20participated%20in%20a,of%20Postal%20Workers%20in%20August.
[222] "Comprised of a subset of self-employed workers, these *lavoratore parasubordinato* were distinguished 'when the provision of the service presents itself as characterized, in practice, by a predominantly personal activity of continuous and coordinated collaboration.' Four 'concurrent' factors need to be present to denote this intermediate category: (1) collaboration, (2) continuity and length of the relationship, (3) functional coordination with the principal, and (4) a predominantly personal service." These quasi-subordinate workers were not granted most of the substantive protections afforded employees. See, Cherry and Aloisi (2017).
[223] Cherry and Aloisi (2017)
[224] Cherry and Aloisi (2017).

‘alienness,’ or *ajenidad*, …. While the employee does not own the means of production and the productive tools and infrastructure, the TRADE owns his or her tools and is equipped with all the hallmarks of genuine self-employment.” TRADE workers enjoy many legal protections.[225] Another observed result was arbitrage of the categories, which “shifted what should have been TRADE workers into independent contractor status because of the high level of legal protection and burdensome procedures associated with the TRADE category.”[226] “The crucial component for determining whether a worker is a TRADE rests on a threshold of economic dependency measured, by law, at seventy-five percent”[227]—percentage of income earned from a single principal.[228]

Legislative proposals and implementations that update labor laws outside of the U.S. to assist at least some participants in the alternative workforce in other countries are useful case studies in potential reform in the U.S. Based on experiences in some other countries, some researchers propose that instead of creating a new category or worker, one solution that works within the current U.S. framework is to change the default presumptions regarding the two categories that already exist. For example, above a minimum threshold of hours worked or income earned, the default rule could be an employment relationship for most alternative workers, except those that may fit into a specified ‘safe harbor’.

[225] These protections include a minimum wage, annual leave, entitlements in case of wrongful termination, leave for family or health reasons, and collective bargaining. “They are entitled to an annual vacation, a set number of days off per week, a limit on working hours, the right to be covered by insurance against work-related accidents and diseases, and protection for workers unemployed as a result of business failure.” “As a result, they enjoy a set of rights ‘beyond the statement of basic rights and duties of self-employed workers—vaguely reminiscent of those of employees, albeit without equivalent guarantees or legal status [of employees].’” See, Cherry and Aloisi (2017), p. 671.

[226] Cherry and Aloisi (2017)

[227] Cherry and Aloisi (2017)

[228] In addition, TRADE status requires a formal written contract and a set of strict requirements that are often viewed as time-consuming and burdensome for both workers and businesses. As a result, few workers have actually become classified as TRADE. See, Cherry and Aloisi (2017), pp. 673-674.

Table 1

Source	Evidence on Percentage of Workers Who Prefer Flexible Work Schedule	Evidence on Proportion of On-Demand Workforce with Other Primary Work
CWI National Survey, January 2020	Of respondents: - 46% view working as a freelancer as a long-term opportunity; 39% view it as a lifestyle choice - 94% are satisfied with their current independent work arrangement	Of respondents: - 71% considered freelancer earnings a primary source of income - 71% condsidered quitting their traditional job to work solely as a freelancer
BLS's Current Population Survey, Contingent and Alternative Worker Supplement, May 2017	[Of those for whome alternative work is their sole or primary income source,] 79% of ICs preferred their arrangement over a traditional job, while only 44% of on-call workers and 39% of temporary help agency workers preferred their work arrangement.	
"Dispatches from the New Economy: The On-Demand Worker Study," Intuit and Emergent Research, 2016	Of survey respondents, 91% like controlling decisions about where, how and when they work; 46% report creating/controlling own schedule as 2nd most frequently cited reason to work in on-demand economy.	Of respondents, 43% have either a traditional full-time job (29%) or part-time job (14%) in addition to their ODE work; about 21% were unhappy with the lack of benefits.
Diana Farrell and Fiona Greig, "Paychecks, Paydays, and the Online Platform Economy," JPMorgan Chase & Co. Institute, February 2016		Platform labor earnings were largely a secondary source of income for "established participants" in all 15 cities and the nation as a whole. No stats provided on the distribution of study participants.
Aaron Smith, "Gig Work, Onine Selling and Home Sharing," Pew Research Center, November 17, 2016	"if they were able to make their current job more flexible, 64 percent of Millennials want to occasionally work from home and 66 percent would like to shift their hours." Of respondents who provided ODE services, 45% reported a "need to control own schedule."	23% of those who provide ODE labor are students; a majority of ODE workers describe themselves as being employed either full (44%) or part time (24%); 32% say they are not employed.
Lyft Economic Impact Report, 2019	96% of respondents reported that a flexible schedule was very or extremely important	91% of drivers drove less than 20 hours per week
The Rideshare Guy 2019 Reader Survey	For 52.9% of respondents, pay was the most important aspect of being a driver. For 36.7% of respondents, it was flexibility.	55.2% of respondents considered themselves part time drivers, and 44.8% considered themselves full-time drivers.
Jonathan Hall and Alan Krueger, "An Analysis of the Labor Market for Uber's Driver-Partners in the United States," January 2015	"...when asked directly (Q52), "Which of the following would you most prefer regarding your driving with Uber?" with responses describing an employment relationship and an independent contractor relationship, 79 percent chose the latter."	About half of Uber's driver partner survey respondents currently receive employer-provided health insurance from their employer at another job or from a spouse or other family member's job. Also, "For one-fifth of driver-partners (20 percent), Uber is their only source of personal income, and for another 12 percent Uber is their largest but not only source of income. Nearly half of driver-partners view income earned on the Uber platform as a supplement to their income but not a significant source (48 percent)"
V.B. Dubal, "An Uber Ambivalence: Employee Status, Worker Perspectives, & Regulation in the Gig Economy," November 2019	"Unsurprisingly, a majority of drivers who indicated a preference for employee status—79 percent—stated that they wanted the security and/or benefits that come with employment. Of those who preferred to be treated as independent contractors, 67 percent stated that this answer was informed by a need or desire for scheduling flexibility and/or autonomy on the job."	

Table 2

Source	Estimates of Independent Workforce	Full-Time/ Part-Time Estimates	Workforce Definition and Date of Study
BLS Contingent Worker Supplement Survey of Contingent and Alternative Employment Arrangements, May 2017	15.5 million individuals, or about 10% of total employed (includes independent contractors, on-call workers, temporary help agency workers, and contract firms)	Presumed to be 100% full-time, but not necessarily	Defined as sole or main source of income; May 2017
McKinsey & Company, Independent Work: Choice, Necessity, and the Gig Economy, October 2016	54 million to 68 million independent earners in the U.S., both labor and product sales (22-28 percent of the work-age population)	48% - Primary income; 52% - Supplemental Income	2016 survey data; this is a consensus estimate and appears to include more than labor.
"The State of Independence in America," MBO Partners, 2019	41.1 million identified as independent workers in the U.S.	The number of full-time independents was 15.3 million (37.2% of total independents), the number of part-time (regular) independents was 10.8 million and the number of part-time (occasional) independents was 15 million	Primary or secondary source of income; March 2019; MBO Partners defines full-time independent workers very broadly—those who consistently work over 15 hours per week. Part-time independents are those working 15 hours or less a week.
"Freelancers in America," commissioned by Upwork and Freelancers Union, 2019	57 million Americans participate in freelance economy	The share of those who freelance full-time increased from 17% in 2014 to 28% in 2019.	Full-time and part-time designations are self-reported identifications by survey respondents, and do not correspond to number of hours worked specifically; June-July 2019.

Appendix 1 – Author Biographical Information

James Langenfeld

Dr. Langenfeld is a Senior Managing Director at Ankura, an economic consulting firm specializing in applied microeconomics, labor, antitrust, health care, intellectual property, and financial analysis. He is Co-Chair for the American Bar Association ("ABA") Section of Antitrust Law's Economics Committee, and is the Editor of *Research in Law & Economics*. He has held positions involving the analysis of economic issues such as Director for Antitrust in the Bureau of Economics of the Federal Trade Commission ("FTC"). At FTC, Dr. Langenfeld supervised 45 Ph.D. economists and made recommendations to the Commission on competition related matters. He has been an adjunct profession for many years at Loyola University Law School Chicago and Johns Hopkins University teaching Law and Economics. Since becoming a consulting economist and an adjunct professor, he has testified in a wide variety of cases, including on different employment issues such as patterns of alleged discriminatory behavior and defamation, damages, and worker classification. As part of his ABA duties, he was the primary drafter of the Section's comments on platform markets submitted to the FTC and various international agencies.

He holds a Bachelor of Arts degree in English and Economics from Georgetown University and a Ph.D. in Economics from Washington University in St. Louis. At Washington University, he completed the graduate sequence in labor economics and conducted research on labor topics. He serves as a referee and editor for a number of business, economics, and legal journals. He has published many scholarly writings on economic issues in journals and books, including contributions to several ABA handbooks. He has received many honors, including the SES Meritorious Service Award, the FTC Distinguished Service Award, Honoree at the Department of Justice's Celebration of the Twentieth Anniversary of the 1982 Merger Guidelines, Adolph G. Abramson Scroll for an outstanding article in *Business Economics*, and Washington University in St. Louis' Distinguished Alumni Award.

Chris Ring

Chris Ring is a Senior Director at Ankura, located in Washington, DC. Chris has assisted experts analyzing economic issues related to commercial disputes and regulatory proceedings since 2008. He supports experts in these engagements through leading the coordination of case teams, developing written expert testimony, and supporting expert witnesses in live hearings. He also frequently conducts economic damages analyses, market analyses, and competition analyses. He has assisted in matters involving a wide variety of subjects and industries. Some of the subjects he has analyzed include worker classification, labor discrimination, alleged breach of contract, economic damages, and various competition analyses, such as analyses involving multi-sided markets. He has worked on engagements involving auto parts, technology, package delivery, energy, and many other industries.

He holds a Bachelor of Science degree in Commerce from the University of Virginia and a Master of Science degree in Applied Economics from Johns Hopkins University. He has also served as the Young Economist Representative for the ABA Section of Antitrust Law's Economics Committee.