For release on delivery
12:30 p.m. EST
November 17, 2016

The "Gig" Economy: Implications of the Growth of Contingent Work

Remarks by

Lael Brainard

Member

Board of Governors of the Federal Reserve System

at

"Evolution of Work," a convening cosponsored by
the Board of Governors of the Federal Reserve System,
the Federal Reserve Bank of New York, and the Freelancers Union

New York, New York

November 17, 2016

I would like to thank Bill Dudley and Sara Horowitz for inviting me to participate in today's conference. The subject we are tackling today--the evolution of work--is a particular interest of mine and is a matter of great importance to the Federal Reserve. The Congress has mandated the Federal Reserve to implement monetary policy so as to promote maximum employment and stable prices. Our dual mandate recognizes the importance of work in enabling people to contribute to the financial security of their family and the prosperity of their community and the country overall. Moreover, there is a long-standing recognition that secure and dignified work provides a key sense of purpose and worth. Understanding the changing nature of employment in today's economy is not only central to the mission of the Federal Reserve, but also goes to the core of who we are as providers for our families and productive members of society.[1]

In contrast to traditional work arrangements, in which an employee has a durable employment relationship with a single primary employer, a large and growing proportion of the workforce is working through contracting, temporary arrangements, on-call arrangements, or as freelancers being hired for episodic "gigs." Broadly speaking, contingent arrangements are more transitory than traditional arrangements, in the extreme consisting of a single transaction or gig. They often provide considerably greater flexibility than long-term employment contracts, allowing workers and employers to move in and out of work relationships easily. Depending on the nature of the

I am grateful to Stephanie Aaronson, Dave Buchholz, Andrew Figura, Joseph Firschein, Arturo Gonzalez, Barbara Lipman, Barbara Robles, Marysol Weindorf, and Alison Weingarden for their assistance in preparing this text.

[1] These remarks represent my own views, which do not necessarily represent those of the Federal Reserve Board or the Federal Open Market Committee.

employment relationship, this enhanced flexibility could have benefits and costs that accrue to workers and employers very differently.

Although they have always been a feature of the American economic landscape, there has been a sharp increase in the prevalence of contingent working arrangements over the past decade, and it is too early to tell how much of this acceleration is a cyclical phenomenon associated with the Great Recession or reflects a structural trend. The growing share and variety of contingent work has important implications for policy and puts a premium on data and research exploring this topic. For monetary policy, the growth of contingent work affects the way we assess maximum employment and the way we interpret important labor market outcomes, such as the level of part-time employment and aggregate hours worked. Depending on the contractual arrangements, it may also have important implications for economic security and the behavior of households as consumers and savers. Richer and timely data and analysis could help guide employers, workers, and public officials toward outcomes where benefits and risks are better understood and managed.

What Do We Know about Contingent Work?

Official measures of the changing nature of work have not kept pace with the evolution of the economy. But thanks to some cutting-edge researchers, several of whom are present today, there is a growing foundation of analysis.

Last year, Larry Katz and Alan Krueger conducted a version of the Contingent Worker Survey (CWS) to track alternative and nonstandard work arrangements using the RAND American Life Panel.[2] Their findings are striking: Over the past decade,

[2] The Contingent Worker Survey is the main survey used by the Bureau of Labor Statistics for tracking alternative and nonstandard work. The survey was last fielded in 2005.

contingent workers have increased by roughly one-half and now make up 16 percent of the workforce. This rapid increase is in marked contrast to the preceding decade, when contingent workers remained at a relatively stable 10 percent of the workforce, according to the Bureau of Labor Statistics' (BLS) CWS.[3] They conclude that all of the net growth in aggregate employment in the decade leading up to 2015 can be accounted for by contingent work arrangements, which means there has been no net employment growth in traditional work arrangements. Given that this period spanned the Great Recession and the first five years of a slow recovery, it naturally raises the question of how much of the large recent shift toward contingent work is attributable to cyclical factors, as opposed to structural forces that may be here to stay.[4]

Long before the advent of firms such as Uber and TaskRabbit, many individuals worked in contingent arrangements, such as freelancing and contracting, and it is these groups that have increased their share of the workforce most notably over the past decade. The largest increase in contingent work over this time has been among workers whose services are contracted out by another company, which rose from 0.6 percent to 3.1 percent of the workforce. There was also a large increase in workers who are independent contractors, consultants, or freelancers, whose share grew from 6.9 percent

[3] See Katz and Krueger (2016).

[4] The U.S. Government Accountability Office (GAO) study of the contingent workforce shows an increase of 5 percentage points in the share of contingent work arrangements, although this shift took place from 2006 to 2010. The GAO's definition of contingent work covers a much larger share of the workforce, 40.4 percent in 2010, than the CWS. See U.S. Government Accountability Office (2015).

In the same vein, a 2014 survey by the Federal Reserve Bank of Boston found that roughly 44 percent of its survey's respondents participated in some informal paid work activity during the previous two years. See Bracha and Burke (2014).

in 2005 to 8.4 percent in 2015. On-call workers expanded from 1.7 percent to 2.6 percent of the workforce.[5]

Over this same period, technological platforms have emerged that are transforming the way people identify, schedule, and engage in contingent work and are also helping people to monetize their assets to generate income. These developments, under the rubric of the "gig," "on-demand," "platform," or "sharing" economy, have the potential to be transformative. Although the data are still relatively sparse, it appears that the number of workers using online platforms to secure gigs is still small but is growing quickly.[6] Katz and Krueger found that workers who provide services through three online intermediaries accounted for only 0.5 percent of all workers in 2015. Diana Farrell and Fiona Greig (2016) reach a similar conclusion, using a unique and rich data set.[7]

The Federal Reserve Board fielded a survey to better understand the many ways adults are generating income, regardless of their employment status and the frequency of these activities. The survey uses an expansive concept of contingent work, capturing all of the activity individuals are undertaking to generate income. The Enterprising and Informal Work Activity survey, or EIWA, suggests that more than a third--36 percent--of the adult population undertook informal paid work activity either as a complement to, or as a substitute for, more traditional and formal work arrangements.[8] Similarly, a survey

[5] See Katz and Krueger (2016).

[6] See Harris and Krueger (2015).

[7] By contrast, studies conducted by the Federal Reserve Bank of Boston in 2013 and 2015 found that approximately one in four respondents--or more than half of informal work participants--say they earned money through informal work activities conducted online. See Bracha, Burke, and Khachiyan (2015).

[8] See Robles and McGee (2016).

undertaken by Upwork and the Freelancers Union that also uses an expansive definition of contingent work finds that 35 percent of the labor force engages in freelance work.[9]

The Upwork survey provides further insight by subdividing the 35 percent of the labor force who have done some form of informal work over the past 12 months into five categories. In the categories most comparable with the Katz and Krueger CWS categories, roughly 12 percent of the workforce identify as independent contractors who do not have an employer and engage in project-by-project work, whereas between 2 and 3 percent are traditional contract or temporary workers who have a single employer or project at a time and whose work status is temporary. By contrast, roughly half of the Upwork respondents do informal work in addition to traditional employment relationships; almost 10 percent derive their income from multiple different types of arrangements, including both traditional employment relationships and freelancing, while about 9 percent report having a full-time traditional job and "moonlighting" to gain additional income on top of that. The group that derives income from multiple different types of jobs has evidenced the fastest growth over the last few years covered by the survey. In addition, 2.5 percent identify as business owners.

Some informal workers in the EIWA would not meet the definition of employment in the Current Population Survey (CPS) either because they did not do work in the CPS reference week (the EIWA asks about activities over the past six months, not during the reference week) or because they would not categorize the covered activities (such as the occasional selling of goods or renting of property) as work.

[9] The Upwork survey encompasses an expansive set of contingent work arrangements, even if only intermittent, over the past 12 months, and the EIWA encompasses a similar scope over the past 6 months, while Katz and Krueger confine their focus to the Current Population Survey reference week, similar to the BLS CWS. In addition, the Upwork definition is similar to the EIWA in counting as informal workers those individuals with traditional full- or part-time work who *also* engage in some informal work, in contrast to Katz and Krueger and the BLS CWS, which try to differentiate those workers who predominantly engage in contingent work.

Finally, the EIWA survey provides valuable insights into the use of recent technologies in informal work. The EIWA survey suggests that over the previous six months, roughly 11 percent of adults in the United States have engaged in paid services using an online platform, such as arranging transportation activities with companies such as Uber, arranging work opportunities on sites like Care.com, Amazon Mechanical Turk, or TaskRabbit, generating projects through companies such as Fiverr, selling goods and crafts on sites such as eBay and Etsy, and renting rooms or homes through services like Airbnb, among others.[10] This figure is much larger than the Katz and Krueger finding of 0.5 percent, partly because the EIWA survey was fielded to all adults regardless of their formal employment status, asked about *all* online paid services, and used a six-month look-back period, rather than the past week.

Who Is Engaging in Contingent Work and Why?

Together, these recent surveys of informal work paint a varied picture of the universe of informal work arrangements, along with participants' motivations for engaging in them. Nineteen percent of informal workers in the EIWA survey, for example, were engaged in three or more online and/or offline informal paid work activities in the prior six months, and 25 percent indicated that informal and contingent work activities have been "very much" or "somewhat" a regular and consistent source of their monthly income.

Results regarding the ages of workers attracted to nontraditional work vary: Katz and Krueger find that the share of contingent work arrangements increases with age,

[10] A study by the McKinsey Global Institute suggests that 15 percent of independent workers in the United States and the European Union participate in online informal work activities. See Manyika and others (2016).

while the Upwork study finds that freelancing is more prevalent among the young. The earnings experiences of contingent workers appear to span a wide range. Katz and Krueger find that those engaged in contingent work tend to be concentrated in the highest income quintiles. But while independent contractors and contract workers earn relatively high wages, on-call and temporary-help work tends to occur among workers in lower wage quintiles.

One common theme that emerges is the desire to earn extra money, which is a primary motivation for 74 percent of part-time, and 68 percent of full-time, freelancers in the Upwork survey. Similarly, in the EIWA survey, 65 percent of informal workers reported that earning income was their main reason for engaging in informal and contingent work, and the EIWA provides many examples that corroborate this result.[11] A full-time restaurant cook in his 50s, reports that he does yard work and sells items both online and offline to earn extra income and to help family members. He averages 60 hours per month from side and gig work and reported that these earnings constitute 75 percent of his household's monthly earnings. Similarly, a respondent in her 20s works part time as a dental hygienist and supplements this employment with about 8 hours per month of additional gig work. She said that the gig work somewhat mitigated the effect of the Great Recession, which found her working fewer hours, with stagnant wages and a loss of benefits.

For others, work-life balance considerations seem to play a significant role in choosing contingent work arrangements. For example, a mother in her 20s reported spending 12 hours per month selling self-crafted items online, babysitting, and

[11] The responses to the survey were anonymous and confidential.

completing online tasks, collectively providing about 20 percent of her family's income. She reported that her main reason for participating in the gig economy is to be home with her daughter.

Many others find themselves in highly variable work arrangements not by preference but because of the requirements of their employers. As employers have outsourced noncore tasks to contract firms and moved to technologically enabled "just-in-time" scheduling of employees, contract workers and on-call workers have had to adjust to variable and sometimes unpredictable hours.

As these stories indicate, there are a variety of reasons workers engage in alternative and nonstandard work arrangements. Many individuals use the flexibility and enhanced connectivity of new technology-enabled platforms to pursue expanded opportunities. While some supplement their traditional job, using their free time to earn extra income, others cobble together contingent work arrangements or gigs to generate necessary income in the absence of traditional work opportunities. Still others move into contingent work arrangements due to their employers' work requirements. While some workers seem to appreciate the greater opportunities contingent work arrangements provide, others engage in this work out of necessity because they appear unable to obtain a full-time traditional work arrangement that meets their needs. Overall, the Upwork study finds that 63 percent of freelancers say they are pursuing this type of work by choice, while 37 percent do it out of necessity. It is unclear whether this outcome would hold true of the more tightly defined population in the Katz and Krueger survey.

Implications of a Growing Gig Economy

If market forces and technology are driving the growing prevalence of gig work, these trends will likely continue, and policymakers must better understand these changes. A natural starting point is measurement. There is some good news on this front, as the BLS is preparing to field a CWS in May 2017 for the first time since 2005.

Better data should help deepen our understanding of how the growth of contingent work is changing the behavior of workers and employers and what these developments imply for the overall economy and household welfare. From a macroeconomic perspective, we should be attuned to the possibility that the growth in flexible work arrangements may alter the natural rate of employment and how the labor market reacts to shocks as we assess the cyclical behavior of important aggregates--such as labor force participation, employment, hours worked, and underemployment.

One possibility is that new technologies, by lowering the barriers to workforce entry, could raise employment and labor force participation. Because there are fixed costs to obtaining and maintaining a job--such as searching for the job, learning about the job, and traveling to the job site every workday--the traditional work arrangement embeds incentives for individuals to work only one job, thus minimizing these fixed costs. And for those individuals who desire to work relatively few hours, these fixed costs in the past may have led to a decision to remain out of the labor force. But if technology makes it less costly for individuals to find work, manage multiple work relationships, and flexibly work more or fewer hours as their schedule permits, this could significantly increase workers' options and have important effects on labor market

behavior. Importantly, any such increases in participation and employment would likely be structural, not cyclical, enabling the economy to run at a sustainably higher level.

New technologies could also make it easier for individuals' actual hours to match their desired hours of work in a day or a week. Instead of seeing hours per week bunched around 40, we may see greater variation in the hours that individuals work. Lower barriers to workforce entry may make it more attractive for more individuals to work only a few hours a week if they desire--and can afford--to do so. At the same time, by making it easier to find additional work, new technologies may lead to more individuals working greater-than-full-time hours every week. In addition, we may see individuals changing the number of hours they work more frequently, as these changes become less costly. Both the EIWA and Upwork surveys confirm that gig work does, indeed, lower barriers to workforce entry and increase hours and flexibility for some individuals.

The increasing prevalence of gig work may also affect the unemployment rate and productivity. To the extent that gigs provide an easy entryway to employment, unemployment may decrease. However, if gig work is less stable, it may increase job loss. The net effect on unemployment is, thus, unclear. Regarding productivity, gig work could lower aggregate productivity to the extent that it requires less human capital or specialized knowledge than traditional jobs, or if it primarily increases hours worked by lower-skilled individuals. That said, gig work, especially when enabled by new technologies, may allow hours to respond more flexibly to changes in demand and individuals to more easily connect with many different clients or employers. As a result, workers' downtime and the time required to acquire new clients and manage existing clients may decrease, in which case resource utilization and productivity may increase.

It is also possible that the increasing prevalence of gig work will cause the cyclical behavior of unemployment, participation, and the workweek to change, with implications for how we assess the amount of slack. We know that contingent work increases when the economy worsens. If new technologies make it easier to find gig work, then we could see unemployment rise less in recessions, to the extent that gig workers are counted as employed. However, it could be that individuals who are able to avoid unemployment through contingent work would still be underemployed if it is difficult to cobble together enough gigs to achieve full-time employment. This would likely show up as lower average workweeks and higher levels of involuntary part-time employment during downturns. As a result, cyclical changes in resource utilization could be reflected less in movements in the unemployment rate and more in variation in hours per worker.

Beyond the behavior of macroeconomic variables, it is unclear how the growth of different types of gig work affects the welfare of workers. Welfare should increase in cases where gig work meets the needs of workers by providing a low-barrier means of accessing employment and by allowing workers to better match actual hours worked with desired hours of work, especially if the gig work is available at times and in places where traditional work opportunities are in short supply.

There is some evidence that this has, indeed, been the case. For example, 24 percent of informal workers in the EIWA survey indicated that contingent work had offset their spells of unemployment, loss of working hours, loss of benefits, or frozen wages in their formal employment "very much" or "somewhat." In addition, three-

fourths of Uber drivers say that the greater control over their work schedules that Uber allows has made their lives better.[12]

However, there are likely many workers who would prefer regular full-time traditional work to contingent work, particularly if much of the power in determining hours worked in alternative work arrangements belongs to the employer. Technological advances have enabled firms to use just-in-time strategies for their employees, making them in effect on-call workers. This is a rising trend in industries such as retail and food preparation. Several recent articles describe the challenges faced by these just-in-time workers, who must conform their hours to the daily and even hourly ebbs and flows of business, often not knowing whether they will have work on a given day until they call in that morning to inquire.[13] These arrangements can leave workers scrambling to patch together child care, elder care, and transportation to meet the often unpredictable demands of their workplace, while making it difficult to engage in regularly scheduled activities to enhance their income and opportunities, such as a second job or career training. While such workers often are not given full-time work, they often must make themselves available to work full-time hours. According to one survey, 71 percent of retail workers in New York stated that their hours fluctuated from week to week, while half said their employers could change their hours at will.[14] It is also notable that the increase in contingent work over the past decade has coincided with an increase of one-third in the share of employees working part time but who would prefer to work full time from 3 percent prior to the Great Recession to close to 4 percent today.

[12] See Hall and Krueger (2015).

[13] See Ansel (2015) and Carrillo and others (2016).

[14] The 2011 survey was conducted by the Retail Action Project, cited in Wessler (2014).

In addition, contingent workers may receive lower wages, less training, and fewer benefits than their counterparts with traditional jobs. Typically, the wages of low-skilled employees within a company are boosted by social norms regarding pay equity, and nonpecuniary benefits are often equalized across a company's employees, in certain cases as mandated by law.[15] However, the wages that contractors receive are unlikely to reflect the same equity considerations. Moreover, contingent work generally does not offer employer-based benefits and workplace protections that come with traditional employment opportunities, like overtime compensation, minimum wage protections, health insurance, family leave, employer-sponsored retirement plans, workers' compensation, and paid sick leave.

As a result, for some, contingent work may entail greater risks than in traditional full-time employment, with more variable and less predictable hours and earnings. The Upwork study notes that one of freelancers' biggest concerns is managing income variability and benefits. For lower-income workers, unpredictable fluctuations in income can lead to severe hardship. The Federal Reserve Board's Survey of Household Economics and Decisionmaking, for example, finds that 46 percent of households report that they would need to borrow money or sell something in order to pay an unexpected expense of $400.[16]

These findings suggest that employers, policymakers, and workers should seek ways to help individuals better manage the risks inherent in most forms of contingent work. For example, we may need to enhance social safety net programs, such as

[15] Regulations stipulated by the Employee Retirement Income Security Act and the Affordable Care Act generally mandate equal benefits provision of pension and health insurance plans across employees.
[16] The survey is available on the Board's website at https://www.federalreserve.gov/communitydev/shed.htm.

unemployment and disability insurance, to better support some types of contingent work. Another possibility is to make benefits, such as health insurance and retirement saving, portable across different employers. We may also want to encourage the additional saving that many contingent workers need to ensure that their basic consumption needs are not sacrificed when demand for their work declines, perhaps by providing monetary or other types of incentives.

Closing Thoughts

The apparent trend toward contingent work has recently coincided with new advances in technology that can potentially amplify this trend and push it in new directions. We are still at an early stage in these developments, and it is too soon to say how these changes will play out. But the effects on the labor market could be long lasting and significant. Taking into account the potentially varied effects of the rising prevalence of gig work on household welfare, public policy should strive to maximize the benefits of the greater flexibility and lower entry barriers provided by advances in technology, while addressing the risks that currently accompany many forms of gig employment. Going forward, better data will be necessary, along with detailed research and analysis, in order to enable workers, employers, and policymakers to guide these changes in the labor market in a direction that ensures the benefits are broadly shared and the risks are well understood and well managed.

References

Ansel, Bridget (2015). "The Pitfalls of Just-in-Time Scheduling," Washington Center for Equitable Growth, January 27, http://equitablegrowth.org/equitablog/pitfalls-just-time-scheduling.

Bracha, Anat, and Mary A. Burke (2014). "Informal Work Activity in the United States: Evidence from Survey Responses," Current Policy Perspectives 14-13. Boston: Federal Reserve Bank of Boston, December, https://www.bostonfed.org/-/media/Documents/Workingpapers/PDF/economic/cpp1413.pdf.

Bracha, Anat, Mary A. Burke, and Arman Khachiyan (January 2015). "Changing Patterns in Informal Work Participation in the United States 2013-2015," Current Policy Perspectives 15-10. Boston: Federal Reserve Bank of Boston, October, https://www.bostonfed.org/-/media/Documents/cddp/cpp1510.pdf.

Carrillo, Dani, Kristen Harknett, Allison Logan, Sigrid Luhr, and Daniel Schneider (2016). "On-Call Job, On-Call Family: The Necessity of Family Support among Retail Workers with Unstable Work Schedules," Working Paper 2016-11. Washington: Washington Center for Equitable Growth, November, http://cdn.equitablegrowth.org/wp-content/uploads/2016/10/25123457/110116-WP-retail-workers-with-unstable-schedules.pdf.

Farrell, Diana, and Fiona Greig (2016). *Paychecks, Paydays, and the Online Platform Economy: Big Data on Income Volatility.* New York: JPMorgan Chase Institute, February, https://www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf.

Hall, Jonathan V., and Alan B. Krueger (2015). "An Analysis of the Labor Market for Uber's Driver-Partners in the United States," Working Paper 587. Princeton, N.J.: Princeton University, Industrial Relations Section, January, http://dataspace.princeton.edu/jspui/bitstream/88435/dsp010z708z67d/5/587.pdf.

Harris, Seth D., and Alan B. Krueger (2015). "A Proposal for Modernizing Labor Laws for Twenty-First-Century Work: The 'Independent Worker,' " Discussion Paper 2015-10. Washington: Hamilton Project, Brookings Institution, December, http://www.hamiltonproject.org/assets/files/modernizing_labor_laws_for_twenty_first_century_work_krueger_harris.pdf.

Katz, Lawrence F., and Alan B. Krueger (2016). "The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015," working paper, March, https://krueger.princeton.edu/sites/default/files/akrueger/files/katz_krueger_cws_-_march_29_20165.pdf.

Manyika, James, Susan Lund, Jacques Bughin, Kelsey Robinson, Jan Mischke, and Deepa Mahajan (2016). *Independent Work: Choice, Necessity, and the Gig*

Economy. San Francisco: McKinsey Global Institute, October, available at http://www.mckinsey.com/global-themes/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy.

Robles, Barbara J., and Marysol McGee (2016). "Exploring Online and Offline Informal Work: Findings from the Enterprising and Informal Work Activities (EIWA) Survey," unpublished paper, Board of Governors of the Federal Reserve System, Division of Consumer and Community Affairs, [insert month], [insert URL].

Upwork and Freelancers Union (2016). "Freelancing in America: 2016," survey results, October 6, available at https://www.upwork.com/i/freelancing-in-america/2016.

U.S. Government Accountability Office (2015). *Contingent Workforce: Size, Characteristics, Earnings, and Benefits.* Washington: GAO, April, available at http://www.gao.gov/products/GAO-15-168R.

Wessler, Seth Freed (2014). "Shift Change: 'Just-in-Time' Scheduling Creates Chaos for Workers," NBC News, May 10, http://www.nbcnews.com/feature/in-plain-sight/shift-change-just-time-scheduling-creates-chaos-workers-n95881.