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Will Your Smartphone Get You a Job?

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GLOSSARY

Capital resources: Goods that have been produced and are used to produce other goods and services. They are used over and over again in the production process. Also called capital goods and physical capital.

Employed: People 16 years and older who have jobs.

Labor market: The exchange of labor by workers who want to sell labor and businesses that want to purchase labor. Also known as the job market.

Independent contractor: Self-employed workers who are hired by customers to provide a product or service. They are often referred to as freelancers or consultants.

Human resources: The quantity and quality of human effort directed toward producing goods and services. Also known as labor.

Market economy: An economic system in which decisions about what goods and services are produced, how they are produced, and who gets them are made by buyers and sellers who meet to exchange goods, services, and resources. The buyers and sellers decide the prices of goods, services, and resources.

Natural resources: Things that occur naturally in and on the earth that are used to produce goods and services.

Part-time work: Employed less than 35 hours per week.

Self-employed: Persons who work for profit or fees in their own business, profession, or trade. (Persons with incorporated businesses or who own shops or restaurants are not counted by the BLS in this definition.)

Wages: Income earned for providing human resources (labor) in the market. Wages are usually computed by multiplying an hourly pay rate by the number of hours worked.

"You can think of freelancing as volatile and risky, or as flexible and opportunity-rich. Doesn't having multiple sources of income and multiple moneymaking skills sound less risky than putting all your eggs in one employer's basket?"

—Sara Horowitz, Author of *The Freelancer's Bible*

When the iPhone launched in 2007, few predicted it would change our economy. According to a Pew Research Center survey, 1 nearly 77 percent of Americans own a smartphone, such as the iPhone. Buyers and sellers now connect with each other millions of times each day—on their smartphones. Need a ride? There's an app for that (several actually). Want food delivered, a picture hung, a place to stay, dance lessons, help with homework? There are apps for those things, too—and many others (see the table). While buying and selling isn't new, the way apps on smartphones bring buyers and sellers together is. The types of goods and services offered aren't necessarily new either; however, the jobs created to provide them are. In fact, the changes in the economy are so vast that they've inspired a new term: the gig economy. According to the Pew Research Center, in 2015, nearly one in ten Americans earned money from a job found through a digital platform.² Will the smartphone change the way you find work? Will you become a freelancer, creating your own schedule, deciding when and where to work?

Gig Work

You may have heard the word "gig" used by musicians. It refers to a single performance—a gig. The term is used in a similar way for the gig economy. The Bureau of Labor Statistics (BLS) refers to a gig job as a "single project or task for which a worker is hired, often through a digital market place, to work on demand." Today, millions of Americans sell their labor one gig at a time on apps such as Uber, Lyft, TaskRabbit, and many others. The apps bring buyers and sellers together, and the app owner usually earns a fee for each gig.

Gig workers aren't employees of the apps that match them with buyers. As **self-employed** workers (often labeled **independent contractors** or freelancers), gig workers have the flexibility to choose not only when

Popular Apps for Earning Income						
Gig app	Services					
Airbnb	Lodging, whereby people rent out their properties or spare rooms to guests.					
Amazon Flex	Package delivery (of Amazon products), with the delivery person providing the vehicle.					
Bellhops	Moving: Loading and unloading of belongings.					
Handy, TaskRabbit	Help with simple household tasks such as furniture assembly, picture hanging, or other tasks.					
Lyft, Uber	Ridesharing, with the driver providing the vehicle.					
My Tutor Lab	One-on-one tutoring for grades K-12.					
Wag	Dog walking. Owners get to see when the walk starts and ends, plus receive reports with photos, notes, distance walked, and doggy output.					
Wonolo	Fills a business's immediate labor needs. Companies temporarily enlarge their labor force with workers who can arrive within the hour and do a job.					

and where to work, but also how much or little they want to work (pending job availability). About 9.5 million of the more than 150 million of those who worked in 2017 for wages or profit are self-employed,⁴ which includes workers in the gig economy. And about 7.5 million workers had more than one job (see the figure), which includes workers in the gig economy as well. Most gig jobs fall into the part-time-work category. In today's labor market, however, most jobs are full time and still tied to a specific employer and specific hours. However, as the gig economy grows, it has the potential to increase the number of gig jobs and reshape the labor market. But, as you'll see, apps have not changed the fundamental roles of workers in the production of goods and services.

Goods and Services: The Factors of Production

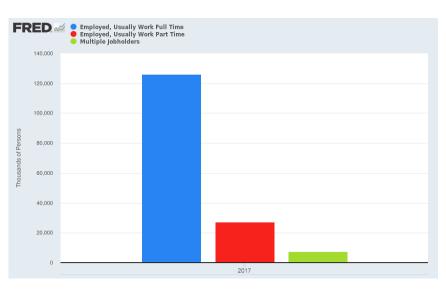
The factors of production—natural, human, and capital resources—are the building blocks of a market economy. These factors can be combined in endless ways to earn profits by producing the goods and services people demand. Entrepreneurs—the individuals who take risks in order to develop new products and start new businesses—combine the factors of production in search of profit. All of the apps mentioned were developed by entrepreneurs seeking new, more-efficient ways to produce and distribute goods and services.

Let's focus on the production of rides and how a ridesharing service differs from a traditional taxi company. The buyers in this market are seeking rides—perhaps to the airport or a job interview—and are willing to pay a fee. A traditional taxi company produces a service (local rides) by hiring drivers and other workers such as dispatchers and mechanics (human resources) to work for the firm. In addition, the taxi company invests in automobiles, a building to house the taxis, and other things (capital resources). The drivers, dispatchers, and mechanics are employees of the taxi company. Drivers collect metered fares from riders who demand taxi rides. These fares make up the taxi company's revenues. After deducting the expenses of running the company (driver and dispatcher wages, costs of purchasing and operating the taxis, building rent, etc.), the company may or may not earn a profit. Profits and losses go to the company owner, the entrepreneur.

The Market for Rides in the Gig Economy

Consumers of rides want to get from place to place efficiently and for a fair price. Today, millions of consumers use a smartphone app to demand rides instead of lining up at a taxi stand or hailing a taxi from a street corner. What about the cars and drivers? A rideshare-service driver provides the car and is responsible for keeping it running. The driver must pay for items such as fuel, tires, and licensing. Instead of the usual taxi, the driver may pick up riders in anything from a pickup to a luxury SUV. The vehicle generally doubles as a personal vehicle.

What about the dispatchers and mechanics? Smartphone apps automate the job of taxi dispatcher. Using GPS technology and the Internet, the app connects drivers with riders. Drivers unable to provide their own maintenance must hire others for vehicle upkeep. What about prices? This may be the biggest change of all. Many ride-



Full-Time Employees Outnumber Part-Time Employees

NOTE: Full time is >35 hours per week, and part time is <35 hours per week. The BLS defines a multiple jobholder as an individual who held more than one job during the reference week of the survey and who usually receives a wage or salary from his or her primary job (i.e., the job at which the individual worked the greatest number of hours during the reference week). In short, a multiple jobholder is a wage or salary earner with a primary job and one or more additional jobs for pay.

SOURCE: U.S. Bureau of Labor Statistics and FRED®, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/graph/?g=mf7J, accessed December 3, 2018.

share apps respond to changes in supply and demand. Want a ride during a time of peak demand? Be prepared to pay a premium. At times of slack demand, in contrast, fares may drop to levels well below those charged by a taxi company.

Why don't rideshare drivers apply for jobs with taxi companies? Why take on the risks of expensive repairs and slack demand? According to BLS surveys, many who opt for self-employment value autonomy—deciding for themselves what kind of work to do, whom to do it for, where and when they do it, and even how much to pay themselves.⁵ These advantages, in the minds of workers who value freedom and flexibility, outweigh negatives such as no paid sick leave or vacations.

Who Are the Gig Workers and How Much Do They Earn?

The BLS reported that the majority of the 10.6 million workers who labeled themselves independent contractors or freelance workers are under 55 years of age. Most aren't really young, however; fewer than 375,000 of the total fit into the 16- to 24-years-of-age category. Men outnumber women 65 percent to 35 percent. And minori-

ties are underrepresented in the ranks of independent contractors: Fewer than one out of eight is African-American, Asian, or Hispanic-Latino.⁶ Younger U.S. adults are significantly more likely to use a smartphone to look for a job: 53 percent of 18- to 29-year-olds reported using a smartphone when searching for a job, compared with 28 percent of all U.S. adults.⁷

Gig work earnings vary widely, with Airbnb hosts making the most. According to a recent survey,⁸ in 2017, the median Airbnb host earned \$440 per month, or just over \$5,000 per year. Some hosts in major cities earned up to \$10,000 per month, however. Median rideshare drivers earned from \$155 to \$210 per month. These figures may seem low, but keep in mind that for most workers the majority of gig earnings result from sporadic part-time employment.⁹ Also, remember the millions of multiple jobholders; one person may have multiple app-driven jobs.

An aspect of gig work not included in earnings, and that should be considered, is the lack of benefits often provided with traditional jobs. Benefits many workers take for granted—retirement plans, workers compensa-

tion, and unemployment insurance, for example—are lacking in the gig economy. Independence comes at a cost. As more and more workers become providers of on-demand services, it is possible that labor laws will be updated to extend protections to gig workers.

The BLS continues to survey workers to monitor changes in labor markets. Last year, the BLS ran into doubters when it said its surveys showed that from 2005 to 2016, the portion of Americans working in what is popularly considered the gig economy declined.¹⁰ Some economists think the gig economy has been increasing rapidly (up to 50 percent in a 10-year span) and found weaknesses in the BLS's methods.¹¹ Whatever the trend, it is clear that millions of American workers have become providers of on-demand services.

Conclusion

Is "the freelance surge...the Industrial Revolution of our time?"12 Production of goods and services still depends on an entrepreneur to combine the factors of production—natural, human, and capital resources. Is the smartphone ushering in a "once-in-a-century upheaval in our workforce"?¹³ At this point, it's still hard to say. Claims about the growing gig economy's effects on workers are debatable, but the smartphone's presence in the hands of more than three out of four of us is not. App-based part-time work as ride providers, dog walkers, and home repairers, to name a few, is available to millions. As the BLS notes, a desire for autonomy—the ability to decide when and where to work and for whom drives many to seek self-employment opportunities, even if it's part-time in addition to working full-time for an employer.14 Downsides such as a lack of basic workplace benefits continue to put the brakes on some considering gig employment. The BLS will continue to be a solid source for updates. You can find them on your smartphone at www.bls.gov.

Notes

- ¹ Pew Research Center. "Mobile Fact Sheet" February 5, 2018; http://www.pewinternet.org/fact-sheet/mobile.
- ² Smith, Aaron. "Gig Work, Online Selling and Home Sharing." Pew Research Center, November 17, 2016;

http://www.pewinternet.org/2016/11/17/gig-work-online-selling-and-home-sharing/.

- ³ Torpery, Erika and Hogan, Andrew. "Working in a Gig Economy." BLS Career Outlook, May 2016;
- https://www.bls.gov/careeroutlook/2016/article/what-is-the-gig-economy.htm.
- ⁴ FRED®, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CE16OV and https://fred.stlouisfed.org/series/A4501C0A173NBEA, accessed December 7, 2018.
- ⁵ Vilorio, Dennis. "Self-Employment: What to Know To Be Your Own Boss." BLS Career Outlook. June 2014; https://www.bls.gov/careeroutlook/2014/article/selfemployment-what-to-know-to-be-your-own-boss.htm.
- ⁶ BLS. "Economic News Release: Contingent and Alternative Employment Arrangements Summary." June 7, 2018;
- https://www.bls.gov/news.release/conemp.nr0.htm.
- ⁷ Perrin, Andrew. "10 Facts About Smartphones as the iPhone Turns 10." Pew Research Center, June 28, 2017; http://www.pewresearch.org/facttank/2017/06/28/10-facts-about-smartphones/.
- ⁸ Bhattarai, Abha. "Side Hustles Are the New Norm. Here's How Much They Really Pay." Washington Post, July 3, 2017; https://www.washingtonpost.com/news/ business/wp/2017/07/03/side-hustles-are-the-new-norm-heres-how-much-theyreally-pay/?utm_term=.bc97f8f91565.
- ⁹ McGregor, Jena. "How Much People Really Make in the 'Gig Economy." Washington Post, September 24, 2018; https://www.washingtonpost.com/business/2018/09/24/how-much-people-really-make-gig-economy/?noredirect=on&utm_term=.6e948fb2c6ae.
- ¹⁰ BLS, 2018.
- ¹¹ Palagashvili, Liya. "Don't Be So Sure the Gig Is Up." Wall Street Journal, June 12, 2018; https://www.wsj.com/articles/dont-be-so-sure-the-gig-is-up-1528844430.
- ¹² Horowitz, Sara. "Freelancers in the U.S. Workforce." BLS Monthly Labor Review, October 2015;

https://www.bls.gov/opub/mlr/2015/article/freelancers-in-the-us-workforce.htm.

- ¹³ Horowitz, 2015.
- ¹⁴ For more on the topic, see Auray, Stéphane; Fuller, David; and Vandenbroucke, Guillaume. "Multiple Jobholders." Federal Reserve Bank of St. Louis Economic Synopses, 2018, No. 32; https://research.stlouisfed.org/publications/economic-synopses/2018/12/21/multiple-jobholders.



Please visit our website and archives at http://research.stlouisfed.org/publications/page1-econ/ for more information and resources.

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Name Period

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"Will Your Smartphone Get You a Job?"

After reading the article, answer the following questions:

1	What percentage of	f Americans earned	some income from a	dinital	nlatform in 2015?
	What percentage of	/ Willerically Callica	Joine medine nom a	aigitai	piationin in 2013.

- a. 1 percent
- b. 5 percent
- c. 10 percent
- d. 15 percent

2. In a gig economy, millions of workers

- a. operate virtual storefronts selling imported goods.
- b. are employees of apps.
- c. work part-time for a traditional employer.
- d. provide services on demand one task at a time.

3. Americans under age 30 are more likely to use a smartphone to look for a job

- a. but less likely than older Americans to work as freelancers.
- b. and as likely as older Americans to work as freelancers.
- c. and more likely to be female.
- d. but less likely to own a smartphone.

4	 Entrepreneurs combine na 	tural, human, and	resources to proc	duce goods and	services

- a. financial
- b. technological
- c. capital
- d. intellectual

5. Bureau of Labor Statistics surveys tell us that a major motivator for many self-employed workers is

- a. financial security resulting from two paychecks.
- b. peace of mind knowing that they cannot be laid off from a job.
- c. the ability to decide when, where, and for whom to work.
- d. freedom from higher taxes.

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- 6. In the current gig economy, most freelancers
 - a. are employed over 40 hours per week.
 - b. work sporadically and part time.
 - c. earn an above-average income.
 - d. are 16 to 24 years of age.
- 7. According to the Bureau of Labor Statistics, participation in what is considered the U.S. gig economy
 - a. doubled between 2005 and 2015.
 - b. has remained flat since 2010.
 - c. fell between 2005 and 2016.
 - d. increased by 50 percent from 2010 to 2016.
- 8. The gig economy has
 - a. changed the factors of production needed to produce goods and services.
 - b. resulted in an economy where the majority of jobs are part time.
 - c. expanded the percentage of freelancers who receive paid vacations.
 - d. allowed millions of workers to set their own work schedule.