The Gig Economy and Contingent Work: An Occupational Health Assessment

The gig economy describes forms of contingent work arrangements that require digital platforms, representing an evolution in contingent work, both in moving up the educational scale and in increased visibility. It has engaged many workers who are highly educated and might previously have been in traditional employer–employee relationships, and appears to increase their vulnerability to wage theft, independent contractor misclassification, job insecurity, and lack of occupational health protections. As occupational health physicians, our need to develop, evaluate, and implement interventions to address the needs of workers in non-traditional employment relationships is growing.

BACKGROUND

Nonstandard working arrangements are those in which the traditional employer–employee relationship has been altered. Although there is no universally acknowledged taxonomy, such arrangements may include working less than full-time, through a second employer, on-call, on a temporary basis, outside the legal definition of employment, among others.^{1,2} Proponents of such arrangements consider them “flexible,” while others have characterized them as “precarious.”² Contingent work is defined by the US Department of Labor Bureau of Labor Statistics (BLS) as “any work arrangement which does not contain an explicit or implicit contract for long-term employment,”³ to include independent contractors, on call workers, and workers provided by contract firms; the Government Accountability Office has expanded that definition to include additional non-standard work arrangements.⁴ In a series of surveys, contingent workers earned less, were more likely to live in poverty, received fewer benefits, and were younger and more often of Hispanic ethnicity when compared with workers in standard working arrangements.^{5–7} Nonstandard work relationships raise questions about occupational safety and health and have been associated with adverse mortality outcomes.^{2,6,7}

“Gig” work, a unique subset of contingent work, has grown markedly since the most recent recession, although absolute numbers are still small and difficult to track.³ The term was first coined by journalist Tina Brown to describe “contingent” work that is transacted on a digital “marketplace.”⁸ Recently, the US Department of Commerce proposed a new definition for these companies, which it calls “digital matching services.” These services are defined as those that (1) facilitate peer-to-peer transactions using online platforms or mobile apps; (2) utilize user-based rating systems; (3) offer workers flexibility in determining their hours; and (4) place responsibility on workers to

provide whatever tools or assets are necessary to accomplish their work.⁹

While piecework has long been a staple of low- and middle-income work, this new version involves workers from many socioeconomic levels. The defining characteristic of gig economy businesses is that they offer online applications to connect individuals seeking services with those providing services, and do not consider themselves to be service providers. The services themselves can be entirely online, such as photo tagging or completing surveys or offline, such as providing housecleaning or transportation.

Because they claim not to employ the people providing the service, who are considered independent contractors, gig businesses deny having an employer relationship or the responsibility to follow labor laws. Therefore, most do not provide benefits such as health or workers’ compensation insurance. Unlike typical independent contractors, however, workers cannot negotiate their rates or work contracts, but must electronically accept the platform’s terms in order to access assignments. Although most workers in the United States are “at will” employees who can be fired for any reason (as long as it does not overtly discriminate against workers for statutorily protected characteristics such as religion or ethnicity) gig workers can be let go even more easily; since they do not have a contract, they only have to be deactivated from the platform.¹⁰ As Aloisi notes, “Uncertainty and insecurity are the price for extreme flexibility.”¹¹

Companies that would be considered part of the gig economy started appearing in 2005, with the launching of Amazon’s Mechanical Turk, widely considered one of the first gig economy platforms. Since then, they have exhibited a high rate of growth, in size, number, and revenue. The global “sharing economy” market as a whole was valued at \$26 billion in 2013, and some predict it will grow to become a \$110 billion revenue market in the coming years.¹² Based on tax receipts, it has been estimated that, since 2009, nearly 1.3 million new non-employer establishments were created—nearly 75% of all businesses. Of the nearly 270,000 non-employer businesses added between 2012 and 2013, three sectors accounted for 60% of the growth: other services; transportation and warehousing; and real estate, rental, and leasing.¹³ As of December 2014, Uber had about 2000 employees but more than 160,000 “driver-partners” in the United States alone, while Netflix employs a small fraction of the number of employees that used to work in the company it supplanted, Blockbuster.¹⁴ Uber, one of the few companies for which data are available, has more than doubled the number of new drivers every 6 months for the last 2 years.¹²

DEMOGRAPHICS

It is difficult to estimate how many people are employed by the gig economy as a whole. Many work for more than one platform, patching together a living via multiple gigs, and others perform gig work in addition to holding a traditional-economy job. A recent survey found over 40% of on-demand workers work for two or more companies in a given week, and one in seven work for three or more companies.¹² Another found 44% of respondents described themselves as employed full time, 24% as employed part time, and 32% as being not currently employed.⁹

Recently, two surveys attempted to understand the gig worker population more thoroughly. The Survey of Enterprising and Informal Work Activities (EIWA), a nationally representative web-based

Statement of Clinical Significance: This paper introduces practitioners to the occupational health issues associated with work in the gig economy—that is, contingent work conducted on technology-based platforms—and the relevant legislation regarding these workers. This is an occupational sector with a growing reach and is and underserved occupational population.

There are no conflicts of interest to disclose.

Copyright © 2017 The Author(s). Published by Wolters Kluwer Health, Inc. on behalf of the American College of Occupational and Environmental Medicine. This is an open access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

DOI: 10.1097/JOM.0000000000000977

sample of adults conducted in October/November 2015, asked respondents whether they engaged in informal online and offline paid work activities in the prior 6 months. Thirty-six percent of respondents had done so, although this captures both gig and offline informal work.¹⁵ The Pew Research Center conducted an email and web survey in July 2016 asking a nationally-representative sample if they had earned money in the past year using websites or mobile apps which connect workers directly people needing a project or task to be done, require workers to create a profile in order to find or accept work assignments, and coordinate payment between workers and requesters once the task is complete. Eight percent of survey respondents reported earning money in the previous year using digital platforms to take on a job or task.⁹

Workers in the gig economy differ from traditional contingent workers as well as from workers overall in that they are generally younger and more highly educated. Five times as many 18-to-29 year olds reported earning money from gig work last year than those age 50 and older (16% vs. 3%), with a median age of gig platform earners in the United States being 32 years old.⁹ Uber drivers were also disproportionately younger than taxi drivers or the general population.¹⁶ Given the younger age of the average gig worker, people may be performing gig work instead of getting a full-time first job or to supplement a lower-paying job.

Over 60% of American employees of Amazon's Mechanical Turk have college degrees, in marked contrast to 17.6% for other contingent workers.^{5,17} Almost 37% of Uber drivers have college degrees, with 10.8% having a post-graduate degree.¹⁶

Women have traditionally been over-represented in part-time and other flexible arrangement work, and may be slightly over-represented in the Gig economy, comprising 13.8% of Uber drivers, compared with 8% of taxi drivers.¹⁶ Women between the ages of 20 and 24 were more likely to be multiple job holders, however, suggesting engagement in part time or flexible work may not be by choice.¹⁸

Contingent work overall is more prevalent among African Americans and Latinos; this is also true of Gig work. Fourteen percent of African Americans and 11% of Latinos reported doing gig work in the last year compared with 5% of whites.⁹ While Uber drivers were more likely to self-identify as White Non-Hispanic than taxi drivers and chauffeurs in the same areas, they were less likely to identify as White Non-Hispanic than the workforce as a whole in those areas.¹⁶

Among the 30% of respondents who described the income derived from gig work as "essential," 57% had annual household incomes of less than \$30,000 per year, and 52% had high school degrees or less; they were also more likely to be non-white, to be employed less than fulltime, and to consider themselves to be employees rather than independent contractors.⁹

INCOME

Accurate average income estimates are difficult to obtain. Uber claims an annual median income of \$90,766 for drivers in New York, with a median hourly income of \$30.35, but an estimate from Princeton University suggests hourly income ranges from \$17 to \$22. Additionally, platforms tend to report earnings before deductions for expenses: gas, insurance, maintenance, and taxes.¹⁹ Like contingent work, wage theft appears to be prevalent in gig work: 29% of gig workers have performed work for a platform for which they did not receive payment.⁹

Like other contingent workers, gig workers are not provided benefits such as worker's compensation or health insurance through their jobs. According to Uber data, 49% of drivers receive employer-sponsored health insurance through a different employer, or through a spouse, or other family member.¹⁶ The Pew survey found 77% of platform earners are covered by some type of health insurance, though this is still 10 points lower than the national average.⁹ Uber

also makes available to its drivers an online health insurance exchange called Stride, which nearly 19,000 individuals in six eligible states have visited.¹⁶ This arrangement still places workers in a precarious position: if a worker is injured working for a gig platform, even if they receive insurance through another employer, they not only receive no workers' compensation from the gig platform, they also risk jeopardizing their health insurance if the injury precludes working the benefits-providing job.

HEALTH AND SAFETY

There is little information regarding the health aspects of gig work. Among traditional contingent workers, increased rates of fatal and non-fatal injuries may be explained by differences in training and fear of job loss, as well as by employment in high-hazard sectors such as construction or agriculture.²⁰ However, both offline gig work in transportation and services and online gig work are characterized by a number of well-characterized health and safety hazards. Road traffic safety, interaction with the public, use of household cleaning agents, intensive keyboard activity at poorly-arranged workstations present known hazards for which preventive measures exist, although the regulatory framework for prevention does not apply in the absence of an employment relationship. Health and safety risks could be anticipated to be worse in gig work because of the loss of the protective effect of working in a public workplace, as much gig work is transacted in private automobiles or homes.²¹ Younger age is a well-known independent risk factor for occupational injury. Chronic job insecurity, known to contribute to poor overall health among contingent workers, may be as salient among gig workers.^{22,23} The role of choice is likely to be important. A study of a large sample of women with temporary jobs showed psychological distress and somatic complaints were higher among those who were involuntarily performing temporary jobs, compared with those workers who preferred temporary work.²⁴

While some gig workers are higher-income, which could be protective—and has likely contributed to their issues to come into the limelight—many are in driving or delivery—such as Uber, Lyft, Instacart, and Washio. Even among professional, trained drivers, transportation is a dangerous field—it is unknown how much more so it will be for non-professional drivers and for other drivers and pedestrians encountering this untrained-drivers-on-a-schedule. In addition to the chronic job and income insecurity of patching together many small "gigs" to make an income, an issue unique to the gig economy may be increased isolation. Most gig jobs are performed separated from—and often competition with—fellow workers, denying workers face-to-face contact with their colleagues which forms the basis of both social support and discussion of work concerns.¹²

Furthermore, to the extent that most gig platforms concentrate wealth into the hands of the very few while driving down wages through direct competition, the resultant increase in income inequality itself fuels health disparities, while depriving the individual workers of meaningful voice.

INTERVENTIONS

Some companies which fit the gig economy model have adopted a traditional employer–employee model, either at the outset or after a period of employing independent contractors. These companies include Instacart, Shyp, and Managed by Q. For some, this is because of concerns about liability, given recent inquests into whether these companies are misclassifying workers as independent contractors. For others, it is a desire for more quality control over service provision. Saman Rahmian, co-founder of Managed by Q has said "We obsess about every detail of the interface that the customers interact with, and we realized it is very easy to put out an app and fix the bugs and make things look right, but the actual service, that service is being done by a human being,

and if we want to control that interface, then we just have to have these people be part of the stack.”²⁵ However, it is unlikely that this is the direction all such platforms will go.

One approach to ensuring the application of labor laws, including mandated benefits, has been to challenge the designation of workers as independent contractors as illegal misclassification.^{26,27} Although they are not gig workers, truck drivers’ experience with misclassification as independent operators may offer insights. Driven by concerns about pressures on drivers to exceed legal working hours and the inability of truckers to upgrade to vehicles producing less diesel pollution, truckers in California successfully sued under California Labor Code to be reclassified as employees (*Garcia vs. Seacon Logix Inc.*)²⁸; the Department of Labor issued Wage and Hour violation citations, fining an Alabama firm and requiring it to provide misclassified truckers with overtime pay (*Fitzhugh Contracting LLC*),²⁹ and the International Brotherhood of Teamsters initiated a strike in Long Beach California over misclassification.³⁰ Addressing other types of non-standard working arrangements, the National Labor Relations has recognized joint control over subcontracted workers and the workers’ right to unionize,³¹ while the Occupational Safety and Health Administration has directly challenged attempts to outsource responsibility for workplace safety and health through the Temporary Worker Initiative.³²

Numerous court cases are pending concerning the rights and status of gig workers. A recent example, in November 2016, two former drivers for Uber were ruled by New York State regulators to be employees and thus eligible for unemployment payments, rather than independent contractors, as the company has maintained.³³ However, many of these cases settle, yielding benefit for individual plaintiffs but no systemic change.²⁶

Some companies, like Handy, have even hedged their bets against worker misclassification lawsuits by writing into worker agreements that the worker will be responsible for back-payment of payroll taxes if it is determined that they have been misclassified.³⁴ Public concerns about consumer safety resulted in Austin’s municipal requirements for background checks and finger-printing for drivers, subsequently supported by public referendum, which prompted Uber and Lyft to abandon the city. This has sparked a series of experiments in which start-up companies, including a non-profit, have attempted to reduce monopoly and provide drivers with better pay.³⁵

Other groups have begun to organize workers. Drivers who work under Uber, Lyft, and Sidecar have started “App-Based Drivers Associations” in at least two states: Washington and California. These organizations have tried to use their collective leverage to ask for work improvements such as petitioning Uber to add an automatic tip calculation to all of its fares. Since independent contractors are not protected under the National Labor Relations Act, however, those who organize run the risk they will simply be deactivated from a given platform.³⁶

Some have advocated creating a new category of employment—termed “dependent contractors” or “flexible workers”—which recognizes those workers not considered employees of a company who nonetheless are not fully independent in their choices of when, where, and how to work. For example, home-cleaning service Homejoy sets fees and encourages certain work schedules. Workers cannot negotiate their pay rates in the way independent contractors do. Such “dependent contractor” status exists in European countries such as Germany. While it would require careful delineation as to which benefits are extended and which are not, it could provide some safety net to gig economy workers.³⁷ It has been proposed that flexible workers be extended such protections as civil rights protections, access to state and federal worker protections against wage theft, and exemption from non-compete clauses. Given the nature of gig employment, they would likely remain ineligible

for paid vacation and sick leave or unemployment benefits. This status could enable firms to provide flexible workers with job-related supplies or training and even opt in to the workers’ compensation system without triggering questions of misclassification of employees.³⁸

In conjunction with the new worker designation, the creation some form of account gig employers can pay into on a pro-rated basis has been proposed and endorsed by the CEOs of Lyft and Care.com, Senator Mark Warner (D-VA), and others.³⁸ This has been called an Individual Security Account or Worker-Controlled Benefits Exchange (WCBE). Under this model, when independent contractors work for a gig economy company, the platform should pay a few dollars—on top of wages—into a safety net account for each worker, pro-rated according to the hours the worker works for the platform. These accounts would pay into safety net programs such as social security, unemployment, and workers’ compensation and could also be used for purposes such as paid sick days or holidays or to provide funds for workers to purchase insurance through a health insurance exchange.^{37,38} In the WCBE model, the benefits purchased through WCBEs would be worker controlled, giving workers the right to determine which exchange or exchanges receive their contribution. The San Francisco-based firm Peer-s.org—which serves largely as an online-benefits broker for gig-economy workers—and the Independent Drivers Guild, which represents Uber drivers in New York serve as possible examples of what WCBEs could look like.³⁸

Others have advocated for legislation to directly address the worst aspects of the gig economy by inserting both transparency and workers’ voices in the process, thereby requiring the technological platform itself to function as a socially-responsible intermediary.^{39,40} While the gig economy has drawn more attention and is newer than other forms of contingent work, it reflects a larger trend of employers shirking their responsibilities to workers’ compensation through classifying workers as independent contractors or opting out of workers’ compensation altogether.

CONCLUSIONS

Contingent arrangements are expanding beyond traditional occupations in both private and public sectors. Evidence is mounting that gig platforms are replacing at least some traditional employment.

As workers are hired less commonly as employees and more as independent contractors, access to health protections such as health insurance and workers’ compensation will decrease. Without new and effective interventions, the underserved workers of the future will look like a cross-section of the entire population.

As occupational medicine specialists, we have a fundamental ethical responsibility to promote social justice, as outlined in the ACOEM Code of Ethical Conduct and are called on to “promote[s] policies that aspire to protect or improve the health of communities while reducing inequities.”⁴¹ Because these patients may never come in contact with individual practitioners, effecting meaningful change will require a coordinated response through our specialty’s major professional organization, the American College of Occupational and Environmental Medicine, perhaps through extending the work of the Subcommittee on Underserved Occupational Populations. Addressing the occupational safety and health needs of the growing gig sector is crucial to safeguarding worker protections both now and in the future.

ACKNOWLEDGMENTS

Jennifer Sullivan assisted in the preparation of this manuscript. This paper was initially presented at the 2015 AOHC as part of the Section on Underserved Occupational Populations session; the authors are grateful for the input from SUOP members.

Molly Tran, MD, MPH, MA

Division of Environmental and Occupational Health Sciences
State University of New York-Downstate School of Public Health
New York
Molly.tran@downstate.edu

Rosemary K. Sokas, MD, MOH, MS

Department of Human Science
Georgetown University School of Nursing and Health Studies
Washington, DC

REFERENCES

1. Capelli P, Keller JR. Classifying work in the new economy. *Acad Manag Rev*. 2013;38:575–598.
2. Howard John. “Nonstandard work arrangements and worker health and safety”. *Am J Ind Med*. 2017;60.1:1–10.
3. Bernhardt A. Labor Standards and the Reorganization of Work: Gaps in Data and Research. IRLE Working Paper No. 100-14; 2014.
4. U.S. GAO. Contingent Workers: Incomes and Benefits Lag Behind Those of Rest of Workforce; 2000. Available at: <http://www.gao.gov/assets/240/230443.pdf>. Accessed October 16, 2016.
5. U.S. GAO. Letter Report: Contingent Workforce: Size, Characteristics, Earnings, and Benefits; 2015. Available at: <http://www.gao.gov/assets/670/669766.pdf>. Accessed December 31, 2015.
6. Benavides FG, Benach J, Muntaner C, Delclos GL, Catot N, Amable M. Associations between temporary employment and occupational injury: what are the mechanisms? *Occup Environ Med*. 2006;63:416–421.
7. Perlman F, Bobak M. Assessing the contribution of unstable employment to mortality in post-transition Russia: prospective individual-level analyses from the Russian longitudinal monitoring survey. *Am J Public Health*. 2009;99:1818–1825.
8. Manyika J, Lund S, Robinson K, Valentino J, Dobbs R. *A Labor Market that Works: Connecting Talent with Opportunity in the Digital Age*. San Francisco, CA: McKinsey Global Institute; 2015.
9. Smith, Aaron. Gig Work, Online Selling, and Home. Sharing PEW Research Center, November 17; 2016. Accessed December 22, 2016.
10. Weil D. *The Fissured Workplace: Why Work Became So Bad for So Many and What Can Be Done to Improve It*. Boston, MA: Harvard University Press; 2014.
11. Aloisi A. Commoditized workers. Case study research on labour law issues arising from a set of ‘On-Demand/Gig Economy’ platforms. *Comp Labor Law Policy J*. 2016;37:38.
12. Smith R, Leberstein S. *Rights on Demand: Ensuring Workplace Standards and Worker Security in the On-Demand Economy*. New York, NY: NELP; 2015.
13. Rinehart W, Gitis B. *Independent Contractors and the Emerging Gig Economy*. Washington, DC: American Action Forum; 2015.
14. Pfeffer J. “The case against the ‘gig economy’”. In: *Fortune Magazine*; 2015.
15. Robles Barbara, Marysol McGee. “Exploring Online and Offline Informal Work: Findings from the Enterprising and Informal Work Activities (EIWA) Survey,” *Finance and Economics Discussion Series 2016-089*. Washington: Board of Governors of the Federal Reserve System; 2016, Available at: <https://doi.org/10.17016/FEDS.2016.089>. <https://www.federalreserve.gov/econresdata/feds/2016/files/2016089pap.pdf>. Accessed December 22, 2016.
16. Hall JV, Krueger AB. An Analysis of the Labor Market for Uber’s Driver-Partners in the United States; 2015.
17. Marvit M. *How Crowdworkers Became the Ghosts in the Digital Machine*. New York, NY: The Nation; 2014.
18. Sussman AL. *Is the ‘Gig Economy’ a Thing? Ask Women*. Wall Street Journal; 2015.
19. Sherman E. “Uber, TaskRabbit And Sharing Economy Giveth To Workers, But Also Taketh Away”. Jersey City, NJ: Forbes; 2015.
20. Foley M, Ruser J, Shor G, Shuford H, Sygnatur E. Contingent workers: Workers’ compensation data analysis strategies and limitations. *Am J Ind Med*. 2014;57:764–775.
21. Rockefeller Foundation. Health Vulnerabilities of Informal Workers; 2013. Available at: <https://assets.rockefellerfoundation.org/app/uploads/20130528214745/Health-Vulnerabilities-of-Informal-Workers.pdf>. Accessed October 16, 2016.
22. Cummings KJ, Kreiss K. Contingent workers and contingent health: risks of a modern economy. *JAMA*. 2008;299:448–450.
23. Benach J, Muntaner C. Precarious employment and health: developing a research agenda. *J Epidemiol Commun Health*. 2007;61:276–277.
24. Connelly CE, Gallagher DG. Emerging trends in contingent work research. *J Manag*. 2004;30:959–983.
25. Kessler S. The gig economy won’t last because it’s being sued to death. In: *Fast Company*; 2014.
26. Cherry MA. Beyond Missclassification: The Digital Transformation of Work. Comparative Labor Law and Policy Journal. Forthcoming St. Louis University Legal Research Paper No. 2016 – 2. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2734288. Accessed October 17, 2016.
27. Donovan SA, Bradley DH, Shimabukuru JO. What does the gig economy mean for workers? (CRS Report R 44365). Washington DC: Congressional Research Service. Available at: http://digitalcommons.ilr.cornell.edu/key_workplace/1501/. Accessed October 17, 2016.
28. California Second District Court of Appeal. Garcia vs. Seacon Logix; 2015. Available at: <http://www.courts.ca.gov/opinions/nonpub/B248227.PDF>. Accessed December 31, 2015.
29. U.S. Department of Labor. News Brief: Alabama Trucking Company Misclassified Workers as Independent Contractors; 2015. Available at: <http://www.dol.gov/opa/media/press/whd/WHD20151568.htm>. Accessed December 31, 2015.
30. PRNewswire. Making History: Misclassified “independent contractor” Drivers at Chinese-owned Port Trucking Company to be Recognized first as Employees, and to be Represented by the Teamsters; 2015. Available at: <http://www.prnewswire.com/news-releases/making-history-misclassified-independent-contractor-drivers-at-chinese-owned-port-trucking-company-to-be-recognized-first-as-employees-and-to-be-represented-by-the-teamsters-launch-strike-300167372.html>. Accessed December 31, 2015.
31. National Labor Relations Board. Board Issues Decision in Browning Ferris Industries; 2015. Available at: <https://www.nlrb.gov/news-outreach/news-story/board-issues-decision-browning-ferris-industries>. Accessed December 31, 2015.
32. Occupational Safety and Health Administration. Protecting Temporary Workers; 2015. Available at: https://www.osha.gov/temp_workers/. Accessed December 31, 2015.
33. Scheiber Noam. “Uber Drivers Ruled Eligible for Jobless Payments in New York State.” *The New York Times*; 12 Oct 2016. Available at: http://www.nytimes.com/2016/10/13/business/state-rules-2-former-uber-drivers-eligible-for-jobless-payments.html?_r=0. Accessed December 20, 2016.
34. Roose K. *Does Silicon Valley Have a Contract-Worker Problem?*. New York Magazine; 2014.
35. Brustein J. Austin’s Mayor is Keeping Ride-sharing Weird. Bloomberg Technology; 2016. Available at: <http://www.bloomberg.com/features/2016-austin-ridesharing/>. Accessed September 5, 2016.
36. Milkman R, Ott E, editors. *New Labor in New York: Precarious Workers and the Future of the Labor Movement*. Ithaca, NY: Cornell University Press; 2014.
37. Hill S. New Economy, New Social Contract. New America; 2015. Available at: https://static.newamerica.org/attachments/4395-new-economy-new-social-contract/New%20Economy,%20Social%20Contract_UpdatedFinal.34c973248e6946d0af17116fdb6bb79e.pdf. Accessed October 16, 2016.
38. Lehrer E. The future of work. *Natl Aff*. 2016;28:35–52.
39. Dyal-Chand R. Regulating sharing: the sharing economy as an alternative capitalist system. *Tulane Law Review*. 2015;90:241.
40. Infranca J. Intermediary Institutions and the Sharing Economy. SSRN; 2016. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2784766. Accessed September 5, 2016.
41. American College of Occupational and Environmental Medicine. ACOEM Code of Ethics. Available at: <https://www.acoem.org/codeofconduct.aspx>. Accessed October 16, 2016.