It's Not Standard Anymore: A Look at 21st Century Work Arrangements National Institute for Occupational Safety and Health Centers for Disease Control and Prevention U.S. Department of Health and Human Services Washington, D.C. 20 September 2019 NYNJ ERC 40th Annual Scientific Meeting Hass Center for Science and Medicine Icahn School of Medicine at Mount Sinai New York, New York 1 **Overview** History Terminology • Size Models Cases Health & Safety • Future 2 History

Industrial Revolutions

- First Industrial Revolution
 - Used water and steam power to mechanize production
- Second Industrial Revolution
 - Used electric power to create mass production
- Third Industrial Revolution
 - Uses **electronics** to automate production
- Fourth Industrial Revolution
 - Uses physical entities controlled by digital algorithms

4

Rise of the Standard: 1920—1950

- Growth of companies created by 1^{st} and 2^{nd} industrial revolutions
 - Vertical organizational structure differentiated jobs from one another more clearly than ever before; rise of the corporation following WWII.
- "Good" job was being an employee of a particular (manufacturing) company for your entire working life (or until age 65)
 - "Standard employment relationship" became the dominant model during expansion after WWII until 1980s.
- Government built social welfare laws using the same model
 - Employees got job security, benefits & legal protections.
 - Employers got stable workforce in which they could invest with fair expectation of positive returns over time.

5

Standard in Trouble: 1950 to Present

- Early erosion of standard employment relationship
 - Russell Kelly—1946
 - Elmer Winter and Aaron Scheinfeld—1948
 - » From clerical work to manufacturing production
 - » Rise of co-employment arrangement
 - Increasing use of arrangements first used in early 20th century

SERVICES

ManpowerGrou

- » Franchisees (1920s)
- » Independent contractors (19th century)
- Decline in labor union representation
- Threats to social benefits program solvency
- Rise of the virtual workplace
 - Locations technologically connected via a private network or the Internet without regard to geographic boundaries or time zones

Drivers of Change

- Rapid increase in digital communication technologies
- · Growth of services industry
- Rise of smaller-scale, customized, manufacturing production
- Work monitoring by technology requires fewer inducements like permanent work to elicit performance
- Serial subcontracting of non-core functions:
 - Financial pressures from capital markets to shed non-core business.
 - Recruiting, retaining, administratively supporting workforce is non-core business.

7

Industry 4.0 Characteristics

- Monetizing unused time and assets
 - Labor Platforms
 - Capital Platforms
- Using digital platform to match workers with paying customers
 - "Crowdsourcing" workforce
 - Internal workforce eliminate "frictional" costs of hiring
- Providing more opportunities to work
- Operating across the broadest geography possible
 - Electronic retail commerce vs. "brick and mortar" retail

8

History of Work Arrangements

- Work organization used by digital platforms can best be understood as return to long-standing work practices beginning in early 19th and 20th century capitalism
 - On-demand work
 - Piece work
 - Home work
 - Triangulated relationshipS



 Non-standard arrangements have a much longer history in capitalism than the standard employment relationship.

History of Work Arrangements

- Standard work arrangement may be the historical exception rather than a universal model:
 - Origins can be found early to mid-20th century in mass production in large, manufacturing factories using Fordist assembly line techniques.



10

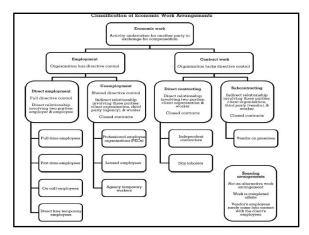
History of Work Arrangements

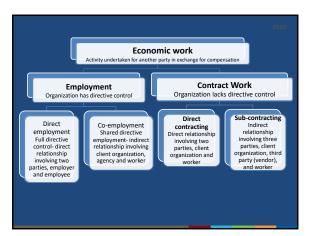
- Labor market institutions and labor law protections (federal and state) began in 1911, and more strongly in the two decades after WWII, to reinforce the standard relationship as the *normative* benchmark of employment that needed social protections.
 - Independent contractors in the mid-20th century (many fewer than today) were thought to have ample ability to protect themselves, hence their exclusion from many social protection laws.



11

Terminology





Work Arrangements • Employment Relationship (Employee) - Organization has directive control: • Standard employment relationship - One employer—one employee • Co-employment - Two employers (agency and client)—one employee • Business Relationship (Independent Contractor) - Organization lacks directive control - Business relationship exists • Specifies the what, the when, but not the how • No employer and no employees—entrepreneurial contract • Gig or Platform Work (Worker) - Customer—platform—provider - Does the platform exert directive control? - Is the provider a contractor or an employee?

Standard Employment Relationship American Legal Institute [2014]. Restatement of Employment Law §1.01 Conditions for Existence of Employment Relationship (a) An individual renders services as an employee of an employer if: (1) Individual acts, at least in part, to serve the interests of the employer; (2) The employer consents to receive the individual's services; and (3) The employer controls the manner and means by which the individual renders services, or the employer otherwise effectively prevents the individual from rendering those services as an independent businessperson. (b) An individual renders services as an independent businessperson and not as an employee when the individual in his or her own interest *exercises entrepreneurial control over important business decisions*, including whether to hire and where to assign assistants, whether to purchase and where to deploy equipment, and whether and when to provide service to other customers. 16 **Standard Employment Relationship** • Is a full-time job (8 hours/day and 40 hours/week) • Comes with expectation that job will continue indefinitely · Work generally occurs at employer's premises and under employer's direct control • Job comes with social protection rights: - Social protections are mandated to be provided by employer or by government. In the U.S., social protections are attached to employment, not citizenship as in other developed countries. So in the U.S. a job means a lot of things. 17 **Safety Net of Federal and State Laws** Applies Only to "Employee" as Defined in Each Statute • Old-age assistance and disability benefits Social Security Act of 1935 Collective bargaining rights National Labor Relations Act, 1935 · Minimum wage, overtime and child labor protections - Fair Labor Standards Act, 1938 · Employment discrimination protections Title VII of the Civil Rights Act, 1964 Age Discrimination in Employment Act, 1967Americans with Disabilities Act, 1990 · Workplace safety and health protections Occupational Safety and Health Act, 1970

18

Pension, health and other employee benefits
 Employee Retirement Income Security Act, 1974
 Family Medical Leave Act of 1993

- Various Federal and state laws

Unemployment insurance and workers compensation benefits

Nonstandard Work Arrangements • Definition of nonstandard work arrangements are not standardized and create confusion. • Nonstandard work arrangement is largely defined by what it is not: - No expectation of ongoing work. - Work not necessarily performed at employer's workplace...work can be spatially distributed. - Arrangements can be market-mediated as opposed to firm-- Few, if any, legal protections for worker. 19 **U.S. Bureau of Labor Statistics** Contingent Workers Alternative Employment Arrangements Independent contractors Independent contractors Identified as such whether self-employed or salaried workers Inst-individual is an independent contractor if the payer has the right to control or direct only the result of the work and not what will be done and how it will be done. On-call workers Called to work only as needed, or can be scheduled to work for several days or weeks in a row "Gig" BLS has no definition and there is no generally accepted definition among researchers Electronically-mediated work Use a company's mobile app to connect with customers Are paid by the platform Choose when and whether to work; and May do short jobs, projects, or tasks in person or online. 20 Size

Size Estimates Before June 2018

- BLS, 2005
 - $-\:$ 9.3 to 10.1% of total employment (1995 to 2005), but no CWS conducted from 2005 to 2017.
 - https://www.bls.gov/news.release/pdf/conemp.pdf
 - Special supplemental BLS survey on contingent and alternative employment arrangements conducted in May 2017.
- Katz & Krueger, 2016
 - 10.1 to 15.8% of total employment (2005-2015)
 - Represents an increase of 9.4 million over ten year period
- GAO, 2015
 - Size of the contingent workforce can range from less than 5% to more than 33% of total employed labor force, depending on widely-varying definitions of "contingent" work
 - Gig workforce 0.5% to 1.0%

22

New BLS Survey Data on June 7, 2018

Contingent and Alternative Employment Arrangements, May 2017 https://www.bls.gov/news.release/pdf/conemp.pdf

- Contingent Workers
 - Range of estimates from 1.3% to 3.8%
 - Total of 2.08 to 6.08 million
- Alternative Employment Arrangements
 - Independent contractors (6.9%)
 - On-call workers (1.7%)
 - Temporary help agency workers (0.9%)
 - Workers provided by contract firms (0.6%)

23

Alternative Employment Totals

U.S. Bureau of Labor Statistics

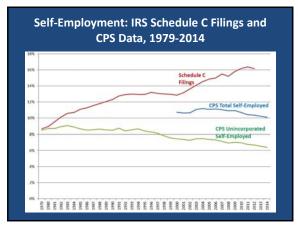
Contingent and Alternative Employment Arrangements, May 2017

	1995	2005	2017
Independent contractors	6.7	7.4	6.9
On-call workers	1.7	1.8	1.7
Temporary help agency	1.0	0.9	0.9
Contract workers	0.5	0.6	0.6
Total	9.9	10.7	10.1

Was the BLS Survey an Underestimate?

- BLS only asks about respondent's "main job"
 - "Fails to capture much secondary work activity leading to an understatement of multiple job holding rate" (Katz & Krueger, 2019).
- BLS only asks about work during a one-week period
 - 42% of independent workers freelance less than weekly (Freelancing in America,
- BLS allows responses from "proxy" respondents
 - "Proxy respondents may be less accurate. BLS should consider using on self-responses" (Katz & Krueger, 2019).
- BLS questions are poorly worded and unclear
 - Leads to miscoding respondents as employees (Gallup, 2018).

25



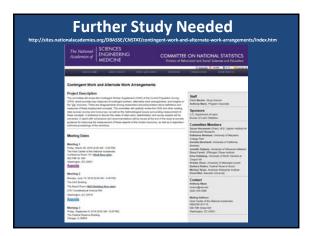
26

New BLS Survey Data—September 2018

- BLS added four questions to the May 2017 Contingent Worker Supplement to measure electronically mediated work
 - Short jobs or tasks that workers find through websites or mobile apps that both connect them with customers and arrange payment for the tasks.
- After extensive review, BLS determined that these questions did not work as intended.
- BLS manually recoded the data using verbatim responses available only on the confidential microdata file.
- Using these recoded data, BLS estimates that electronically mediated workers accounted for 1.0% of total employment in May 2017.

 https://www.bls.gov/opub/mir/2018/article/electronically-mediated-work-new-questions-in-the-contingent-worker-supplement.htm





28



29

Gig Economics—Upside

- Creates surplus value in the economy from unused labor/capital
- Faster matching customer demand and worker supply
 - Digital platform "intermediates" between customers and workers
 - Relies on proprietary algorithms and a sophisticated rating system
 - Reduces costly "search frictions" (Pissarides, 2010)
- Platform removes transaction hassles
 - Theory of the firm (Coase, 1937)
 - Control over workforce and production is cheaper than cost on the open market and haggling for each individual transaction
 - Intermediation drastically lowers firm transaction costs

Upside for Employers

- · Pursuit of flexibility to achieve greater efficiency
 - Functional flexibility
 - Allows smoother worker reassignment
 - Numerical flexibility
 - Employment matches chances in demand
 - Financial flexibility
 - · Labor cost savings
- Which workers are at the core or the periphery of the business determines work arrangement
 - Extent to which workers' competencies are a "valuable resource for the firm" = employee (protected business asset)
 - Extent to which they are unique or firm-specific = employee

31

Downside for Employers

- Management
 - Deciding which arrangement to use in what task
 - Managing work teams when different arrangement workers work side by side
 - Blended workforce problem
 - Use of temporary workers is negatively associated with standard employee's perception of their own
 - Co-managing issues with temporary help agency
- - How do you tell if you have "employees"?
 - How do you steer clear of *misclassification* liabilities

32

Gig Economics—Downside

- Post-industrial corporation

 - Maximizes profit, but not through productive enterprise
 Create value through asset manipulation, speculation, and regulatory arbitrage
- · Regulatory entrepreneurship

 - Tax opportunism

 Taking advantage of existing gaps in the law
 - - Deliberate manipulation of the structure of a deal to take advantage of a gap between the economic substance of the transaction and its regulatory treatment, e.g., fire all workers, rehire them as independent contractors.
- Core of platform business model

 - Evasion of employment law?

 Classifying workers as contractors allows platforms to offer services without have to pay for the cost of workers
- Leads to negative externalities and devolution of responsibilities to so-called "micro-entrepreneurs"

Downside for Workers

- Transfers "business" responsibilities to a "micro-entrepreneur" worker, but operating a small business is a significant responsibility not everybody is able to do.
- Small business "micro-entrepreneur" lacks negotiation power with the platform.
 - Platform can delete you at anytime
 - Worker cannot set their own prices, nor "grow" their own business
 - Hard to engage in collective action
 - Workers do not know each other
 - Dilutes motivation to participate in collective action
- No social safety net
 - unless you can buy your own and one is available to buy
- Risks to health, safety, and worker well-being

34

Upside for Workers

- Greater autonomy
- Flexible hours
- Enhances work variety
- Enables career exploration
- Increased income potential beyond "anchor" job earnings or retirement pension
- More control over work-life balance

35

Legal Cases

Employee or Contractor?

- How do you decide?
 OSHA—Common Law Agency Test—Direct and Control Test (10 factor
 WHD— Economic Realities Test (FLSA) —Different from common law agency test—broader—considers whether workers are economically dependent on the business for which they work (6 factors).

 IRS—Uses a 20 factor test in three areas: (1) behavioral control; (2) financial control; and (3) the relationship of the parties.
- No one test or grouping of factors has achieved national legal consensus in federal or state courts because the definition of employee is adapted to meet the purpose of each individual statute most courts apply a "hybrid" analysis using elements from each of the two major tests.
- Workers' compensation statutes use common law master-servant concepts. The term "employee" in various statutes are consistently read broadly so as to encompass a wide range of workers who may otherwise have been excluded under traditional common law definitions.
- Law of the employment classification is VERY confusing.

37



38

Dynamex Operations West v. Lee

Applies only to claims under CA Wage Orders

- CA Supreme Court, in a unanimous ruling, stated that in order to classify someone as an independent contractor, the business must show that:
 - Worker is free from the control and direction of the hirer in connection with performance of the work;
 Worker performs work that is outside the usual course of the hiring entity's business; and

 - Worker is customarily engages in an independently established trade, occupation or business of the same nature as the work performed for the hiring entity.
- A stricter standard should prevent businesses from evading "fundamental responsibilities" and engaging in a "'race to the bottom' ...result[ing] in substandard wages and unhealthy conditions for workers."
- ABC tests tend to apply only to state unemployment coverage laws and, less commonly, to state workers' compensation laws.

California Assembly Bill 5

• Would codify *Dynamex* criteria into legislation

Uber Says It Won't Reclassify Drivers As Employees Despite New Law

- Uber is claiming that its drivers "pass" the Dynamex test and can thus be considered independent contractors.
- Governor Newsom to WSJ on 11 September

"As it relates to Uber, Lyft, DoorDash, others, some of the gig platforms, these remain ongoing negotiations, and regardless of what happens with ABS, I am committed, at least, to continuing those negotiations."



40

U.S. Court of Appeals—Seventh Circuit

- Illinois Transportation Trade Association v. City of Chicago
 - October 7, 2016
 - Plaintiff taxi drivers argue that the City of Chicago deprives taxi drivers of a property right and that it discriminates against taxis by failing to subject *Uber* to the same rules about licensing to which the taxi ordinance subjects the plaintiff taxi drivers.
 - Judge Richard Posner offered an interesting legal analysis.

41

Cats versus Dogs

- Most cities and towns require dogs, but not cats, to be licensed.
- There are differences between the two types of animals:
 - Dogs on average are bigger, stronger, and more aggressive than cats
 Dogs on average are bigger, stronger, and more aggressive than cats
 Dogs are feared by more people, can give people serious bites, and make a lot of noise outdoors, barking and howling.
- Dog owners may like cats to have to be licensed, but do not argue that the failure of government to require that the "competing" animal (cat) be licensed deprives the dog owners of a constitutionally protected property right, or alternatively that it subjects dog owners to unconstitutional discrimination.
- Plaintiff taxis in the present case have no stronger argument for requiring that *Uber* be subjected to the same licensure scheme as the taxi owners as do dog owners about cats.
- Just as some people prefer cats to dogs, some people prefer *Uber* to Yellow Cab. They prefer one business model to another.





Temporary Help Agency • Temporary staffing industry is perhaps best known for its earlier years when it placed female clerical workers and day laborers/farm workers. • But the industry has expanded to include nearly every occupation in the US and globally. - Manpower and Kelly Services placed workers in work situations across all industries & occupations

Mental Health

- Studies on unemployment, organizational restructuring, and forced downsizing have documented an association with psychological ill-health.
- A meta-analysis of 27 studies suggests higher psychological morbidity among temporary workers compared with permanent employees.
 - Virtanen, M. et al. Int J Epidemiol. 2005;34:610-622.
- Relationship between temporary employment and increased psychological morbidity may reflect the adverse effect of job insecurity, financial instability and other social determinants on mental health.

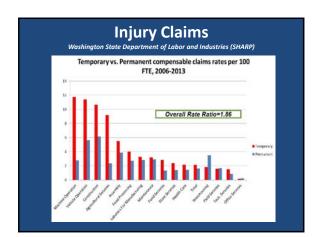
 - Ferrie, JE et al. SJWEH Supp. 2008;6:98-110.
 Ray, T. et al. Sof Sci. 2017 http://www.sciencedirect.com/science/article/pii/S0925753517308172

46

Risk of Injury in Temporary Workers

- European Studies
 - 7 of 13 European reports show increased risk (Virtanen 2005).
- - Higher injury rates in subcontracting turnaround procedures at petrochemical facilities (Rebitzer 1995).
 - Temps had twice injury rate at a *plastics* manufacturer (Morris 1999).
 - Workers' comp injury claim rates for temps double those of permanent workers in Washington state (Smith 2010).
 - PROPUBLICA, using Florida workers' compensation data and BLS data, found an injury odds ratio of close to 4 for temporary workers compared to all other workers (Pierce 2013).
 - Return-to-work outcomes worse for platform workers frequently leads to unemployment.

47



Temporary Agency Risk: Why?

- Temporary agency jobs (more than direct hire temporary) can be more hazardous than standard worker jobs

 Less experience & familiarity with operations due to short tenure at a

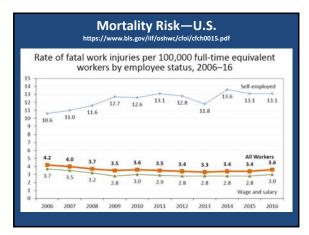
 - Fewer hours of safety training relevant for the specific job assignment
 More distant relationships with longer-term workers who could help
- · Limited availability & use of personal protective equipment
- Less likely to report unsafe conditions because of risks associated with temporary employment
- Confusion (real or perceived) about who is responsible for worker safety:
 - Who is the responsible employer? How do you tell?
 - Common law test, economic realities test, hybrid analysis, IRS test, differing court cases

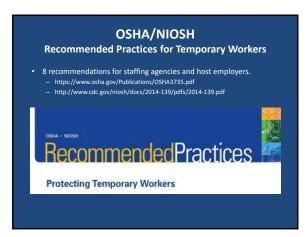
49

Mortality Risk—Europe

- Longitudinal data from 10 towns in Finland—26,592 men and 65,759 women.
- Overall mortality 1.2-1.6 times higher among temporary employees compared to permanent employees
 - For alcohol-related causes, hazard ratio was more for men with temporary jobs as was smoking-related cancer.
 - Corresponding risks were greater for the unemployed
 - Moving from temp to permanent work associated with lower mortality than remaining continuously in permanent employment
- $\bullet\,\,$ Conventional research practice of treating the employed as a single group may attenuate the association between employment status and mortality (Kivimaki, 2003)

50





52

Exposures	NIOSH Scale	EPRES Scale (Vives et al., 2010)
Temporariness	Job security Part/full time Salaried/hourly paid Job tenure	Contract duration Temporary contract (in last 12 months)
Empowerment	Freedom to decide Decision making involvement Daily flexibility in start/quit time	Decision taker in scheduling, work hours, wage and salary (collective of top-down)
Vulnerability	Relationship with management Treatment at work Management trust	Afraid to demand better work condition Defenseless towards mistreatment Afraid of being fired
	Discrimination Supervisory concern	Discriminatory treatment Authoritative treatment
	Promotion chances	Felt easily replaceable
Wages	Family financial situation	Meet basic needs
	Relative family income Fringe benefits	Meet unexpected expenses Take home monthly wage

53

Research Challenges

- No agreed on <u>definitions</u> of nonstandard work arrangements
- Improved <u>surveillance</u> methods about extent of nonstandard arrangements and number of workers involved in each type are needed
- Existing <u>models</u> for employment quality that relate to health outcomes may not be useful for non-standard work arrangements
- Studies needed:
 - Prospective study of health consequences of nonstandard arrangements
 - Intervention effectiveness study of policy approaches

Health & Safety Risks What we know Evidence is sound that employers using nonstandard work arrangements are shifting burden of protecting workers from the things that go wrong at work from employers to the worker. Evidence is sound that temporary agency workers are at higher risk for illness and injury than workers in standard employment - Risk profile of platform workers is largely unknown, but of concern. · What we need - Better taxonomy, better surveillance and new research methods are needed 55 **Future** 56 1. Simplify the Classification System Lobel (2016) • Worker classification issues are not unique to the platform economy. • Nearly 100 years after FLSA was passed, its classification test—economic realities test—is still one of the most unpredictable classification tests. • Problem at heart of classification disputes is <u>not</u> the

57

newness of the platform work, but rather messy complexity of existing legal classification tests.

– DOL rulings and interpretations on FLSA classifications

2. Misclassification to Non-Classification

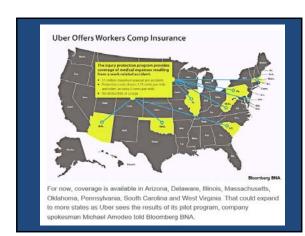
- Make some employment issues classification-neutral
- Speech rights:
 - Whistleblowing and anti-retaliation protection under Federal financial statutes extended to all workers
- Others:
 - Anti-discrimination?
 - WA State already has expansive definition of employee under its state anti-discrimination protection statute
 - » Wash Rev Code §49.060.040 (2015)
 - Safety and health?

58

Workplace Injuries Happen—Who Pays?

- Injuries happen regardless of worker "label"
- Who pays for medical care & provides replacement income?
 - Individual
 - Pay for medical care costs on your own
 - Use health insurance from anchor employer
 - Sue the platform
 - Use your own accident insurance
 - Platform
 - Contribute share to portable workers' compensation benefits
 - Society
 - Occupational injuries result in higher SSDI costs
 - » O'Leary et al. (2012).

59



Uber Insurance

- · Helps pay medical bills and replace normal earnings in case of
 - The insurance policy covers accidental medical expenses up to \$1 million and provides accidental disability benefits up to \$500 per week, death benefits of up to \$50,000 and survivor benefits up to \$150,000.
- Designed around a usage-based pricing model.
- "It's very clear that it's not a workers comp policy even though some of the benefits that are provided are similar in nature to what you would receive under workers comp," says Uber.
- Start to a safety net for gig/platform workers?

61

3. A Class of Their Own—Proposals

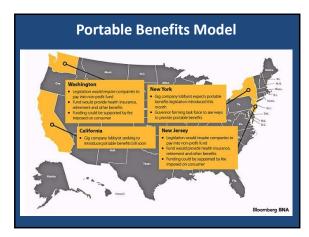
- Dependent contractor (Canada & Germany)
 - In Canada when independent contractor has worker exclusively for one client for long period, they are deemed "dependent contractor."
 - Vizcaino v. Microsoft—9th Circuit declared long-term contractors "permatemps" and actual employees with full employee benefits
 - Regulatory arbitrage: Microsoft terminates work after 270 days and requires at least 100 days between temp work contracts.
- Independent worker (Harris & Krueger, 2015)
 - Much of the established labor safety net would be retained (e.g., rights to organize and collectively bargain), but substantial revisions to existing labor statutes would be needed.
- Flexible worker (Lehrer, 2016)
 - Would create a new classification of worker called a "flexible worker" and recognize a new class of employer called a "job platform."
 - Government safety net would be privatized and worker-controlled benefits exchanges (WCBEs) would be set up to provide limited replacement of some safety net components.

62

4. New Social Benefits Ideas

- Construct a market for portable benefits
 - Provide each individual portable benefits contracted through private firms with platforms chipping in, alongside wages.
 - Eli Lehrer (2016)
- · Create a universal benefits system
 - Attach social protections to citizenship, not to the employment relationship.
- Design a citizen's share
 - Universal basic income
 - Charles Murray

 - Andrew Yang
 "Freedom dividend"



64

Summary

- Workers in standard work arrangements still outnumber nonstandard workers.
- Nonstandard work arrangements are not new in capitalism.
- We still do not know with certainty the size of the workforce engaged in nonstandard work arrangements, nor whether the use of such arrangements is trending up by industry sector.
- The determination of who is an employee differs from statute to statute, making for years of future legal controversy.
- All work arrangements pose safety and health risk; some nonstandard ones pose greater risk, and others are unstudied.

65



References Acevedo, D. (2018). Invisible bosses for invisible workers, or why the sharing economy is actually minimally disruptive," *University of Chicago Legal Forum*: Vol. 2017, Article 3. Alterman, T., Luckhaupt, S.E., Dahlhamer, J. M., Ward, B.W., & Calvert, G.M. (2013). Am J Industrial Medicine, 56, 647-659. $\label{lem:policy} Applebaum \ E. \ et al. \ (2019). \ Nonstandard \ work \ arrangements \ and \ older \ Americans \ 2005-2017. \ https://www.epi.org/files/pdf/162673.pdf$

Asfaw, A., Pana-Cryan, R., Rosa, R. (2012). Paid sick leave and nonfatal occupational injuries. Am J Public Health. 102(9). e59-64.

Asfaw, A. (2014). Disparities in access to health insurance and workers' compensation benefit between non-contingent and contingent farm workers in U.S. agriculture. *J Health Disparities Research and Practice*, 7(3), 81-97.

Atmore E.C. (2017). Killing the goose that laid the golden egg: outdated employment laws are destroying the gig economy. Minnesota Law Review, 102, 887-922.

Auguste, B., Burnham, B., Butler, L. et al. (2015, November 10). Common ground for independent workers principles for delivering a stable and flexible sofety net for all types of work. https://medium.com/the-wif-economy/common-ground-for-independent-workers-853TbCF484flx.ximppi2.

67

References

Bhattacharva A. Precarious work and job stress. Manuscript in preparation.

Benach et al. (2016). What should we know about precarious employment and health in 2025? Framing the agenda for the next decade of research. *Int J. Epidemiol, 45*(1), 232-238.

Benach, J., et al. (2014). Precarious employment: Understanding an emerging social determinant of health. *Annual Review of Public Health*, 35, 229-253.

Benach, J. et al. (2012). The challenge of monitoring employment-related health inequalities. *J Epidemiol Community Health*, 66(12), 1085-1087.

Benach, J. & Muntaner, C. (2011). Employment and working conditions as health determinants. In Improving Equity in Health by Addressing Social Determinants, eds. JH Lee, R. Sadana, pp. 165-195. Geneva: WHO. https://www.cugh.org/sites/default/files/Improving%20Equity%20in%20Health%20by%20Addressing%20Social%20Determinants.pdf

Bernhardt, A. (2014). Labor standards and the reorganization of work: Gaps in data and research. Institute for Research on Labor and Employment Paper No. 100-14. Retrieved from http://www.irle.berkeley.edu/workingpapers/100-14.pdf

68

References

Boden, L., Spieler, E.A., & Wagner, G. (2016). The changing structure of work: Implications for workplace safety and health in the U.S. USDOIL/OSHA. http://www.dol.gov/asp/evaluation/completed-studies/future_of_Work_the implications_for_workplace_health_and_safety.pdf

Cappelli, P. & Keller, J.R. (2013). Classifying work in the new economy. Academy of Management Review, 38(4), 575-596

Chow, M. (2016). The economic impact of H.R. 932 and mandatory paid sick leave on U.S. small businesses. NFIB. http://www.nfib.com/assets/BSIM_HealthyFamiliesAct2015-Jan-14-20161.pdf

Cummings, K.J. & Kreiss, K. (2008). Contingent workers and contingent health. JAMA, 299(4), 448-450.

Dyal-Chand, R. 2015. Regulating sharing: The sharing economy as an Alternative Capitalist System. Tulane Law Review 90(2): 241-309.

DeRigne, L., Stoddard-Dare, P., & Quinn, L. (2016). Workers without paid sick leave less likely to take time off for illness or injury compared to those with sick leave. *Health Affairs*, 35(3), 520-527.

Dey, M., Houseman, S., & Polivka, A. (2010). What do we know about contracting out in the United States? In Abraham, K.G., Spletzer, J.R., & Harper, M.J. (Eds.), Labor in the New Economy (pp. 267-304). Chicago, It.: University of Chicago Press.

References Ferrie, J.E., Westerlund, H., Virtanen, M., Vahtera, J., Kivimaki, M. (2008). Flexible labor markets and employee health. Scand J Work Environ Health Supp, 6, 98-110. Foley, M. et al. (2014). Contingent workers: Workers' compensation data analysis strategies and limitations. Am J Ind Med, 57, 764-775. Foley, M. (2017). Factors underlying observed injury rate differences between temporary workers and permanent peers. Am J Ind Med, 60, 841-851. http://onlinelibrary.wiley.com/doi/10.1002/ajim.22763/abstract?campaign=wolearlyview General Accountability Office. (2015). Contingent workforce: Size, characteristics, earning and benefits. (GAO-15-168R). Retrieved from http://www.gao.gov/products/GAO-15-168R. Goh, J. et al. (2015). Exposure to harmful workplace practices could account for inequality in life spans across different demographic groups. Health Affairs, 34, 1761-1768. GREDS (Health Inequalities Research Group). https://www.upf.edu/greds-emconet/en/presentacio/ Hill, S. (2015). Raw Deal: How the uber economy and runaway capitalism are screwing American workers. New York: St. Martin's Press. Howard J. (2017). Nonstandard Work Arrangements and Worker Health and Safety. Am J Ind Med, 60, 1-10. Hyman L. (2018). Temp: How American Work, American Business, and the American Dream Became Temporary, New York, NY: Viking.

70

References Katz, L.F. & Krueger, A.B. (2016). The rise and nature of alternative work arrangements in the United States, 1995-2015. NBER. http://scholar.harvard.edu/files/ikatz/files/katz_krueger_cws_v3.pdf?m=1459369766 Katz L.F. & Krueger A.B (2019). Understanding trends in alternative work arrangements in the United States. NBER. https://www.nber.org/papers/w25425 Kirven A. (2018). Whose gig is it anyway? Technological change, workplace control and supervision, and workers' rights in the gig economy. University of Colorado Law Review, 89, 249-292. Kivimaki, M. et al. (2003). Temporary employment and risk of overall and cause-specific mortality, Am J Epidemiology, 158/7), 663-668. Kiasa, B.S., Yang, H., Galiney, T. & McClendon, J.A. (2005). HR in the small business enterprise: Assessing the impact of PEO Utilization. Human Resource Management, 44, 433-446. Kochan, T.A., et al (1994). Human resource strategies and contingent workers: The case of safety and health in the petrochemical industry. Human Resource Management, 33, 55-77. Larsen LK (2018). Workers compensation: cases, materials and text. Durham, NC: Carolina Academic Press.

71

References Lewchuk, W., Clarke, M., DeWolff, A. (2008). Working without commitments: Precarious employment and health. Work, Employment & Society, 22, 387-406. Luo, T., Mann, A., & Holden, R. (2010). The expanding role of temporary help services from 1990 to 2008. Monthly Labor Review, August 2010. Mulcahy D [2019]. Estimates of the shrinking gig economy are wrong. Forbes, January 23, 2019. Mullins G.L. (2018). Contingent workers and occupational health: a review on the health effects of nontraditional work arrangements. Harvard Public Health Review. http://harvardpublichealthreview.org/garry/ Mojthedradeh, S. & Kennedy, B. (2017, September 8). Undercover in Temp Nation. Toronto Star. http://projects.thestar.com/temp-employment-agencies/index.html Muhl, C.J. (2002). What is an employee? The answer depends on federal law. Monthly Labor Review, 125, 3-11. Muzaffar, S., et al. (2013). Factors associated with fatal mining injuries among contractors and operators. J Occup Environ Med, 55, 1337-1344. Nicholson, J.R. (2015). Temporary help workers in the U.S. labor market. (ESA Issue Brief #03-15). Retrieved from U.S. Department of Commerce website at http://www.esa.doc.gov/sites/default/files/temporary-help-workers-in-the-us-labor-market.pdf

References OSHA/NIOSH (2015). Protecting temporary workers. Available at http://www.cdc.gov/niosh/docs/2014-139/pdfs/2014-139.pdf NIOSH. (2015, June 16). Addressing the Hazards of Temporary Employment. NIOSH Science Blog. http://blogs.cdc.gov/niosh-science-blog/2015/06/16/temp-workers/ Bulletin 72(3):1-17. OSHA/NIOSH~(2015).~Protecting~temporary~workers.~Available~at~http://www.cdc.gov/niosh/docs/2014-139/pdfs/2014-139.pdfPedulla DS. 2013 The hidden costs of contingency: Employers' use of contingent workers and standard employees' outcomes. Social Forces, 92(2), 691-722 Peel S & Boxall P. (2009). When is contracting preferable to employment? An exploration of management and worker perspectives. Journal of Management Sciences 42(8):1675-1695. Pierce, O., Larson, J. & Grabell, M. (2013). How we calculated injury rates for temp and non-temp workers. Polivka AE Nardone T. On the definition of "contingent work." Monthly Labor Review, December, 1999, 9-16. 73

References

Polvika, AE. Contingent and alternative work arrangements, defined. Monthly Labor Review, October, 1996, 3-9.

Quinlan, M. & Bohle, P. (2004). Contingent work and occupational safety. In: Baraling, J, Frone MR (eds). The Psychology of Workplace Safety. Washington, D.C.: American Psychological Association, 2004.

Quinlan, M., Mayhew C, Bohle P. (2001). The global expansion of precarious employment, work disorganization, and consequences for occupational health: a review of recent research. Int J Health Services, 31(2), 335-414.

Quinlan M. (2015). The effects of nonstandard forms of employment on worker health and safety. International Labour Office, Conditions of Work and Employment Series No. 67.

Rebitzer, J.B. (1995). Job safety and contract workers in the petrochemical industry. *Industrial Relations:* A Journal of Economy and Society, 34, 4—57. Reich, R. (2015). Saving capitalism: For the many, not the few. NY: Knop!

Rogers, G. Precariousness work in Western Europe. In: Rogers, J., Rogers, G (eds). *Precarious Jobs in Labour Market Regulation: The Growth of Atypical Employment in Western Europe*. Geneva: International Institute for Labour Studies, 1989.

74

References

we-need-an-independent-worker-category

Simoes M.R. et al. (2019). Precarious working conditions and health of metropolitan bus drivers and conductors in Minas Gerais, Brazil. AJIM. https://doi.org/10.1002/ajim.23041

Smeaton D. (2003). Self-employed workers: calling the shots or hesitant independents? A consideration

Stanford J. (2017). The resurgence of gig work: historical and theoretical perspectives. Economics and Labour Relations Review, 28(3), 382-401.

Stewart A. & Stanford J. (2017). Regulating work in the gig economy: what are the options? Economic and Labour Relations Review, 28(3), 402-421.

Stone, K.V.W. (2006). Legal protections for atypical employees: Employment law for workers without workplaces and employees without employers. *Berkeley Journal of Employment and Labor Law*, 27, 251-286.

References Sundararajan, A. (2016). The sharing economy: The end of employment and the rise of crowd-based capitalism. Cambridge, MA: MIT Press. Tran M., Sokas R.K. (2017). The gig economy and contingent work: an occupational health assessment. *JOEM*, 59(4), e63-e66. Torrey E & Hogan A [2016] "Working in a gig economy," *Career Outlook*, U.S. Bureau of Labor Statistics, May 2016 Virtanen M et al. [2006]. Temporary employment and health: A review. *International Journal of Epidemiology*, *34*(3), 610-622. Virtanen M et al. [2005]. Temporary employment and health: A review. *International Journal of Epidemiology*, *34*, 610-622. Vives A et al. [2010]. The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occup Environ Med* 2010; 67: 548-55.

Vizcaino v. Microsoft Corporation, 97 F.3d 1187 (CA-9,1996).