The Regulation of Labor Platforms:
The Politics of the Uber Economy

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The Regulation of On-Demand Work:
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Since 2012, the platform economy has experienced stunning growth. While this growth can be measured in terms of the capitalization of platform companies or their gross revenue, a particularly relevant metric is the participation rate of those who earn money on the platform. It has been estimated that monthly participation grew 10-fold from October 2012 to September 2015. While this participation constitutes only 1 percent of adults in the United States, the cumulative participation rate reached 4.2 percent by the end of that period. For labor platforms, which are of particular interest in the current analysis, annual growth rates ranged between 300 and 400 percent in 2013 and 2014. While the growth rate has slowed, it continues to be robust[1] and for good reason. These platforms provide better and more efficient services for those who purchase them. They also provide an opportunity to earn income for those who find work on them.

A number of regulatory issues arise alongside these demands for services and work. Among these are labor regulation and workers' rights, consumer protection, public goods (including taxation), and competition. Regulation, of course, is the result of a political process, and many of these issues are highly contested.

This paper explores the emergent political process of the regulation of labor, or labor-brokerage, platforms through a case study of Uber. To date, Uber is one of the largest and most successful of the labor platforms. It is the dominant player of the ride-hailing platforms[2], the type of platform that have received the most regulatory attention. Thus, the case of Uber presents a particular opportunity for empirical observation. The venues in which these regulatory issues arise are multiple: legislative processes in city councils and state assemblies, administrative processes in city and state regulatory bodies, and judicial processes in courts. In deciding how to regulate Uber, officials make a decision that has broader implications for the gig economy—whether to take a permissive approach to technological innovation or to actively regulate it. By looking across various arenas of regulation relevant to TNCs (transportation network companies, as they are called), we see the array of interests, how actors deploy resources, and the institutional rule-making venues in which they operate. Although labor regulation has received a great deal of scholarly and media attention and has been of concern to drivers and other labor actors, this study shows that labor is the area of least regulation and has hardly even arisen in elected bodies.

We find that Uber regulation in the United States follows an elite political process dominated by concentrated actors and government decision makers largely acting *ex officio* (committee heads, regulators, and judges). Grassroots actors, workers and consumers, correspond to the two demand niches that Uber fills: the demand for work and the demand for service. Both of these grassroots actors have collective action problems and are "represented" largely by surrogates. In the case of consumers, it is Uber itself that solves the collective action problem. In the case of workers, the surrogates are unions and other labor organizations as well as private plaintiffs' attorneys. These surrogates bring their own interests that shape the nature of their advocacy and do so in a way that skews the representation of the grassroots interests.

[1] "The Online Platform Economy: What is the Growth Trajectory?" JPMorgan Chase Institute.

[2] As of August 2016, Uber controlled over 80 percent of the ride-hailing app market in the United States. (http://www.businessinsider.com/uber-majority-ride-hailing-market-share-lyft-us-2016-8?utm_source=feedly&utm_medium=webfeeds)

The paper first discusses types of labor platforms and distinguishes them from other platforms on which people work. It then discusses Uber as a particular case of an on-demand labor platform. Finally, it analyzes the concrete cases of Uber regulation in the United States.

PERSPECTIVES ON LABOR PLATFORMS

Labor, or labor-brokerage, platforms are those that cybercoordinate the market of a service worker and a requester of work for a defined task or project. The task or project may last anywhere from a few minutes to a few weeks. While the terms for workers on these platforms are in some instances contested and occasionally changing (workers on a few platforms have been given employee status), workers are generally considered to be independent contractors, rather than employees. Thus, employment and labor laws do not apply to them.

Disruption vs. Continuation

In many discussions, "disruption" has become an omnipresent characterization that accompanies discussion of the platform economy, along with "creative destruction." These descriptors are generally used to approve of and justify the new platforms. Yet one should be clear about what is—and is not—being disrupted. Although creating gig work and making it more efficient is at the heart of their business models, these labor platforms do not create a new world of work or fundamentally disrupt an existing pattern of employment relations in the economy. Rather, labor platforms should be seen as a recent step in a type of sectoral or firm restructuring that involves a longer trend of growing dualization of the labor market: the growth of various forms of "alternate," contingent, or contract workers, who do not have the rights or social protections of "employees," as per employment and labor law. Within that history of restructuring, which began with economic globalization and the technological innovations of the 1970s and 1980s, the platform economy takes two further steps. First, big data and the algorithmic revolution has enabled a cyber-coordinated labor market, giving the employer tools to intensify, accelerate, and expand the market for contract labor.[3] Second, the spread of smartphone technology has made these labor platforms possible, particularly on-demand platforms (see below), on which this current analysis focuses.

An interesting analysis of this recent but longer-term history of capital and labor restructuring away from the use of full-time employees is that by David Weil (2014), who analyzes what he calls the fissured workplace. Weil's analysis points to two important effects of this restructuring. First, it changes how gains are shared, with fewer gains going to workers (76). Whereas wages were set with some regard for notions of fairness in the old system of an "internal labor market," the restructured firm is concerned only with minimizing costs (83f). Responsibility for worker protection and social costs are shifted out of the firm. Second, with fissured restructuring, a firm maintains an arms-length or mediated relationship with workers.

[3] These tools are not limited to contract labor or the platform economy, as can be seen in just-in-time scheduling, in which employers dynamically schedule workers to coincide with the ebb and flow of demand on very short notification (and often insist that they be available in order to stay on the roll). Big data analytics have also expanded the tools for analyzing and monitoring work. See Gleason, Carrie and Susan Lambert, "Uncertainty by the Hour," Kaplan, Esther et al. "Workplace Monitoring, Algorithmic Scheduling, and the Quest for a Fair Workweek," http://conferences.oreilly.com/nextcon/economy-us-2015/public/schedule/detail/45336; Evangelista, Benn, "Get Ready for an NFL Data Blitz," SFC, Aug. 29, 2016, http://www.sfchronicle.com/business/article/Get-ready-for-an-NFL-data-blitz-9191702.php.

Even beyond the specific type of fissuring analyzed by Weil, a larger trend in the US has been a shift from full-time regulated, protected employment to a casualization and informalization of work and a demutualization of risk. A number of studies have pointed to the increase in contingent or "non-standard" work, such as temp-agency workers, direct-hire temps, day laborers, contract workers, and independent contractors.[4] This sector of the workforce grew 75 percent faster than the overall workforce from 1980 to 1993 (Belous), [5] and by 1995, contingent workers constituted about 32 percent of the workforce (Weil 272).

Explanations of this change in the nature of work have been rooted in both the demand and supply side of the labor market. Employers have turned to contingent work as firms have altered their strategies in response not only to globalization and technology but also to legal and regulatory incentives (Befort). At the same time, there has been some increase in demand, particularly for work-family flexibility and for supplementing stagnant wages.

The point is that with respect to employment trends the platform economy is not so "disruptive." Rather, the work "flexibility" and, in most cases, the independent contractor model of the gig economy, and of Uber in particular, is a continuation and also an acceleration of these more general developments in the nature of work. Little data is available to assess the size contribution of the platform economy to this more general trend. After robust growth in the period from 1980 to 1993, the relative size of alternative work showed little change in the following decade, 1995-2005 (Weil 272, Katz and Krueger 3). However, growth subsequently took off. Katz and Krueger calculate a 50 percent increase in the number of individuals using alternative work as primary work from 2005-2015, accounting for "all of the net employment growth in the US economy." The timing of this growth corresponds to the Great Recession and recovery and the rise of the platform economy. This figure may underestimate the increase in contingent work, as it refers to only the worker's main job. Using this same data, we calculate that platform work constitutes about one fourth of this recent growth of "main job" work. Most participants, however, do not use the platform as their primary source of income (Farrell and Greig 2016: 24).

The growth in platform gig work is not only a continuation of but also a supplement to these developments in the off-line labor market. In addition to accelerating the trend toward part-time, short-duration, and low-wage jobs in the US economy, platform gig work also compensates for it: it is a form of flexible employment that is available to a worker between, "around," or in addition to other jobs that have disappeared, are themselves "flexible," or are inadequate sources of income (including parenting). As offline work becomes more unstable and precarious, the platform economy, with its tremendous increase in search efficiency and lower transaction costs in the labor market, can be a compensatory mechanism for the changing nature of offline work. The Farrell and Greig (2016) study provides empirical evidence that income from labor platforms is used in this compensatory way to cope with volatility in offline income (in contrast to income from what they refer to as capital platforms, which are those on which individuals rent assets or sell goods). A more recent update to that study documents the relationship between labor platforms and the offline job market in the "other direction" as well: the recent job recovery has coincided with a slowing of the rate of growth in participation on labor platforms since August 2014—although it is

[4] See, for example, De Stefano, Aliosi, Hill, Standing, and Susan J. Lambert, et al. "Precarious Work Schedules among Early-Career Employees in the USA: A National Snapshot," ElNet, The University of Chicago.

[5] Richard S. Belous, *The Rise of the Contingent Work Force: The Key Challenges and Opportunities,* 52 WASH. & La L. Rev. 863, 867 (1995), and Jennifer Middleton, *Contingent* Workers in *a Changing Economy: Endure, Adapt, or Organize?* 22 N.Y.U. Rev. L. & Soc. Change 557, 564 .

still doubling annually.[6] Platform income "fits" into recent traits of the larger labor market in other ways as well. It can compensate for insufficient retirement pensions or "early retirement" occasioned by the difficulty middle-aged workers face finding jobs after being laid off; it can be a way to limit or cope with student debt; and it can be an opportunity for income while launching a start-up.

Similarly, from the point of view of capital, the gig economy is also a continuation of the trend in firm restructuring and the move to more "distant" and mediated models of employment relations, parallel to those described by Weil. In some of these offline models, the relationship between the worker and those setting certain specifications for the work, or what Weil calls the "lead firm," is intermediated in quite different ways by, for instance, a staffing agency, or subcontracting/supply-chain models. The labor platform is a different kind of mediated or trilateral relationship between a worker, a "user/requester" of labor, and the platform. In both cases, the key questions are how much control the "lead firm" or platform has in the relationship between the other two and how much responsibility it has (or should have).

The degree of control exerted by the labor platform varies considerably. At one end, some platforms operate as a more efficient, electronic version of the employment agency model, matching requesters with service providers. Others, however, are more interventionist in the relationship between the worker and requester and, crucially, exert more control over conditions of work. In those cases, which most notably include TNCs, the question arises of where responsibility lies for work conditions. This question mirrors a similar dilemma in more complex, non-platform models, such as outsourcing and supply chains. Is, for instance, a US brand designer responsible for work conditions at a Bangladeshi garment factory down the supply chain? Along similar lines, a major regulatory dispute that has arisen with interventionist labor platforms is the issue of worker classification. Are the workers independent contractors—a type of microentrepreneur—or are they employees protected by labor law and regulations? The issue is an old one, and such classification disputes have arisen across the service industry since the 1980s.[7] What is new here is that labor platforms claim to be tech companies that only supply software to match customers and drivers and as such, have no employment relation to drivers.

Thus, the move to a contingent and "distant" workforce has a long history, and the questions of control and responsibility of work conditions have also arisen in offline work. However, the claims of the platform around this question are new and arise in a more dramatic context around the issue of innovation, technology, and a supposedly "new" economy.

Another continuity in the shift to a new world of work can be seen in terms of what some have argued is a shifting boundary between socialized, or monetized, and unsocialized labor, that is, between paid and unpaid labor. Huws (2003: 68) has analyzed this shift for what she refers to as consumption work. Consumption work, which is sluffed onto the consumer, includes various forms of self-serve purchasing, the "little assembly [that] may be necessary" after the purchase, or standing in line to make the purchase (time is not money). In a parallel way, the labor platform, including its offline counterpart of a shift from employee to independent contractor status, also represents a shifting boundary between paid and unpaid work, or the decommodification of work, in two senses. First, it is a form of piece work remuneration, so that the down-time that was

[6] Farrell, Diana and Fiona Greig (2016) "Paychecks, Paydays, and the Online Platform Economy" and "The Online Platform Economy: What is the Growth Trajectory?" JPMorgan Chase Institute

[7] A prominent example is FedEx Home Delivery, Inc. v. NLRB, 563 F.3d 492, (D.C. Cir. 2009). Coordinated litigation against FedEx for misclassifying drivers has been in motion for the past fifteen years.

considered part of the work in the "good job," full-time employee model, such as paid breaks, lunch time, vacation, and sick-leave, is now unpaid—or decommodified. Second, what we will refer to as risk work, which is an in-kind payment in the employee model, is now a form of unpaid labor foisted off on the worker. Grossman and Woyke discuss the "unbundling" of work, so that primary benefits that traditionally accompany employment are excluded in the contractor model. However, it is not only that a set of benefits, like health insurance and retirement savings are no longer available or that risk has shifted from the employer to the worker (Hacker). These changes are extremely important and much discussed, but the further point is that the work that is involved in acquiring the benefit is not that of employees of an HR department, but is unpaid, "outsourced" self-help work. While this unpaid labor has always been a feature of independent contractor work, it is worth noting as a cost to the worker that attends a shift in employment status and is at issue when classification is contested. It is often an extremely complicated and on-going process to figure out how to choose the best health care insurance or IRA, how to manage money such as quarterly IRS payments, and how to continue training and progress up a career path. Along with the changing distribution of risk are the issues of a steep learning curve and the unpaid task of managing these complex, information-intensive tasks. For many people, including the highly educated, the tasks of managing and investing money, withholding income and paying taxes, and choosing health plans are so complex that beyond representing unpaid labor, these tasks may even incur the cost of hiring a specialist to take them over. On the other hand, to some extent some of this unpaid work may also become automated. For example, Uber recently announced that it was making a robo-financial advisor available to some of its drivers (http://fortune.com/2016/08/24/uber-betterment-partnership/).[8]

Uber drivers must engage not only in this decommodified labor, common to independent contractors, but also must ensure that they are correctly compensated for their work. Our surveys and interviews along with postings on online driver forums reveal that drivers engage in an enormous amount of unpaid work first to ensure sure that Uber has calculated their pay correctly, a particularly onerous task given the opaqueness of alogorithms involved in a "flexible" or dynamic price structure (see below), and second, if necessary, to try to contact Uber to correct errors in their earning statements.

Labor Platforms of the Gig Economy

As noted above, of the many kinds of platforms that seem to proliferate daily, of current interest is the specific type we will refer to as the labor platform, or the labor brokerage platform. These are platforms that facilitate the selling of labor to perform a task or service for monetary compensation. They are distinct from a number of other types of platforms on which individuals rent assets or sell goods "peer-to-peer," such as Airbnb and Etsy, or engage in "consignment" work, such as YouTube.[9] They also differ from those such as Craigslist, Monster, or Career Builder, which are electronic bulletin boards or classified ads. Rather, the labor platforms that are of current interest are those that "specialize in temporary contract labor" (Leung IRLE) and coordinate the exchange between the worker and the requester of that work.

[8] It may be noted that while from the point of view of the worker, the gig economy may be seen as decommodification to self-help work, the discussion below indicates that from the point of view of the consumer the gig economy is part of a shift in the other direction: from self-help to commodified work.

[9] M. Kenney and J. Zysman. 2016. What Is the Future of Work? Understanding the Platform Economy and Computation-Intensive Automation. Paper prepared for the Conference on Work and Welfare in the Platform Economy, Radcliffe Institute.

A basic distinction can be made between what is increasingly referred to as crowdsourcing vs. on-demand platforms, or remote crowdwork vs. in-person, on-demand work (De Stefano and Aliosi). Crowdwork is arranged for and fulfilled remotely and online, whereas on-demand work is fulfilled in person, "in the physical world" (De Stefano 8). Crowdwork platforms therefore construct a potentially global labor market that integrates high- and low-wage economies. On-demand platforms, by contrast, construct a local market. Although such a platform can expand to many localities, it organizes separate, local markets.

Labor platforms may also be distinguished by the skill of the work. Skill is a crosscutting dimension, as both crowdwork and on-demand work may be relatively skilled or relatively unskilled (Table 1).

Table 1. Types of Labor Brokerage Platforms

	Low Skill	**High Skill**
Crowdsourcing	Amazon Mechanical Turk	UpWork (coders, editors, lawyers, accountants)
On-Demand	Uber, Postmates, Handy, Rover, TaskRabbit (mostly unskilled; some are blue-collar skilled)	UrbanSitter, Medicast (MD house calls), Angie's list (blue-collar skilled)

Perhaps the best known example of low-skilled crowdwork is that on Amazon Mechanical Turk (AMT) in which workers carry out HITs (human intelligence tasks, which are "extremely parceled activities [that are] often menial [and] monotonous."[10] Other tasks involve high skills, however, such as coders, designers, and a variety of professional services. On-demand work also spans skill levels. At the low-skill end are a large variety of services available to the requester of work, such as housecleaning, dog walking, and delivery tasks (food from restaurants or chefs, goods from retail stores, or, in the case of Uber, oneself). At higher skill levels are electricians, doctors, coders, and lawyers.

Efficiency on labor platforms

The application of technology on labor platforms increases efficiency, but in a way that is quite distinct from conventional applications of technology. The fordist model of full-time employment, for instance, increased productivity by the application of technology to the production process—to the labor process itself. It thereby enabled higher wages, along with increases in worker productivity. The use of robotics follows this same conventional model of increasing labor productivity through the introduction of capital goods. The logic of labor platforms is in some ways different. Technology—the technology of the platform—can be thought of not as making the worker more productive in the actual production process but rather as making the market more efficient by lowering transaction costs. Gig work, which is a central part of the business model of most labor platforms, takes advantage of this efficiency. The technology of labor platforms achieves efficiency by, in effect, shifting the balance between the gig and the search.

[10] De Stefano 4. See also Irani, "Justice for 'Data Janitors'", http://www.publicbooks.org/nonfiction/justice-for-data-janitors.

Put another way, the work of an independent contractor can be thought of in two parts: 1) the unpaid work of looking for a gig and making a contract, and 2) the paid work of fulfilling the contract. The remuneration from the paid production component must thus cover the unpaid search component in terms of total work compensation. The technology of the platform makes the first of these more efficient but does not affect the productivity of the worker during the second. Thus, gig workers' wages rise by working more gigs per time period, assuming the same rate of remuneration for the paid gig/contract work.

To some extent, by shifting the balance between the unpaid search and the paid gig, total remuneration can be maintained even with a lower price per gig, since more gigs can be fit into the freed up, unpaid search time. How that works out, however—and whether the requester will enjoy the greater efficiency through lower prices or the worker will enjoy higher compensation through more gigs in a given time period at the same price—will vary by the type of work and the particular platform, as well as the regulatory framework.

This last point, the possibility of lowering the price per gig, may be important for the business model of certain kinds of platforms. On-demand platforms, such as Uber, may have an interest in a low price for the paid work, putting the burden for maintaining or even increasing wages on the technology-driven speed-up efficiency of the unpaid search. As we discuss below, Uber uses this logic of efficient service provision through its software to argue that intensifying the rate of paid work (more gigs per unit time) allows wages to be maintained even at lower wage-rates per gig. Drivers, however, refute that wages are maintained.

Platform Growth

Growth on the platform can occur through the two typical routes: diversification of services available on the platform and expanding the market for a given service. Many crowdwork platforms are quite unspecialized, covering a great diversity of tasks, skills, and prices. In-person, on-demand platforms vary in their degree of specialization, many beginning as single-service platforms (rides, restaurant delivery, meal preparation and delivery, laundry tasks, dog walking, etc.). Uber is a prime example of a diversification strategy, in terms of the types of cars available for ride hailing, the riding services offered (individual or pooled), delivery of other products, and perhaps ultimately a much greater set of logistics services. The diversification strategy can be seen in Uber's recent change of its motto from "Everyone's Private Driver" to "Where Lifestyle meets Logistics" (Lobel 11).

Most on-demand platforms initially attempt to grow by expanding the number of workers and requesters for a given service. Crowdsourcing platforms tend to be W2B (worker to business) coordinators, which match "workers" or taskers with a variety of skills and expertise to requesters (or taskmasters), who are in business, or are "producers" in that the tasks are generally inputs that the requesters use in some production process. By contrast, on-demand platforms are W2C (worker to consumer) coordinators, which match workers or taskers to final consumers—primarily making personal services available to consumers. The low-skill services are those that most people are used to carrying out themselves, and the idea is to commodify these generally domestic "self-help" tasks by purchasing the services of household help, such as cooks, washers, cleaners, drivers, gardeners, and those who would do other chores for the household, like walking the dog, picking up and delivering packages, watching children, or dry cleaning, etc. In another sense, the provision of these tasks or chores or gigs constitutes a massification of "servant" tasks through their decomposition: instead of hiring a whole servant, one hires these household or personal

consumption services by the chore or task. With this decomposition, individual chores become affordable for those who cannot hire a servant, and the market for household help ultimately expands by going down the stratification hierarchy. Thus, further expanding the market for these chores depends on their provision at a low cost.

The market for ride-hailing is particularly interesting in this respect. Studies have shown consumer bifurcation in the use of taxis, which is greatest among both high and low income groups (Schaller, http://onlinepubs.trb.org\onlinepubs\sr\sr319Appendix.pdf, p. 10). Thus, expansion might mean not only an offer that is attractive or affordable down the income hierarchy, but also intensification of the use of ride-hailing services at the low end. Both of these strategies have a low-cost logic.[11]

For the worker, this on-demand or in-person economy thereby represents a low-wage strategy. The low-wage strategy has both a micro and a macro limitation. At the micro level, wages must initially be high enough to recruit workers. At a macro level, it meets a constraint on aggregate demand to the extent that the model becomes generalized: the potential for expansion depends on the income distribution and the size of the middle—or even the upper-middle class. However, unlike Fordism, as a low-wage model, it generates a class of workers who may not be able to afford what is produced.

Tripartite Relations and Worker Autonomy on the Platform

The online gig economy embodies a tripartite relationship between the platform, the worker, and the requester of the work or service. All labor platforms that are not simply electronic bulletin boards provide some services. Examples are payment processing, ratings or reviews, background checks, and information about worker credentials. A basic issue is whether the platform exercises some degree of control over the exchange between the worker and the requester. The platform can exercise control over various conditions of work, but perhaps the most important, and the most common, form of control concerns the process of price or wage setting.

On some platforms, workers can set their own rate and offer their labor at a set or stated price. The requester then chooses among workers on the basis of this offer, combined with other information about worker experience, qualifications, and ratings by past requesters on the platform. On other platforms, the requester lists a task or project at a set or stated price, and workers decide if they want to apply. In these cases, the platform does not control wage rates, though it might indirectly affect them by constructing a larger market of workers and requesters. Platforms like Angie's List can more directly affect the wage rate by delineating a "fair price" range that must be met. Still others, particularly low-skilled on-demand platforms like Uber and many delivery platforms such as Postmates, GrubHub, and other services, such as Swifto dogwalking and Handy housecleaning, set the price.

In addition to price, the platform may control other aspects of the work as well. In general, the platforms that exert greater control are on-demand platforms, which tend to be worker-to-consumer

[11] While Schaller finds that taxi use is highest among lower and upper income groups, we do not have data that suggests the same is true for TNC users. While we lack data on the frequency of use, a 2015 Pew survey found that 26 percent of high-income individuals (those making above $75,000 a year) have used a ride-hailing service like Uber and Lyft compared to 10 percent of low-income individuals (those making less than $30,000 a year). Since public transit is the cheaper option, one might hypothesize that low-income use is more occasional, more restricted to necessary situations, and thus a market harder to expand.

(W2C) platforms. These more controlling W2C platforms coordinate the same, relatively unskilled tasks repeatedly whereas W2B (worker-to-business), crowd-sourced work is more "customized." Matching worker and requester thus becomes a logistically easier task for on-demand platforms, and control over matching allows these platforms to also control pricing and thus workers' wages.

The issue of platform control is important because it has been raised as a central issue on many platforms, particularly Uber. It is a source of worker dissatisfaction. It is also the legal criterion for employee status. Most platforms maintain that they are not employers and that workers are independent contractors who maintain autonomy and flexibility in their work, particularly over hours and acceptance of a gig. Thus, the nature of platform control over conditions of work is central to the area of labor regulation in the gig economy.

THE CASE OF UBER

Uber is an interesting case for analysis in part because it has become so emblematic of the platform economy. Its paradigmatic position can be seen in, for instance, Hill's use of "Uber Economy" in the subtitle of his book and the numerous hits (150,000) that "uberization" turns up in a Google search.[12] Uber thus raises the general issue of a permissive approach to technological innovation and the gig economy as opposed to a willingness to regulate it.

What is Uber a Case of?

At the same time, Uber is a special case in a number of ways. As per the distinctions above, it is an exemplar of only one type of platform—the low-skilled, on-demand or in-person platform. Further, it is in some respects a hybrid platform in that it has been seen also as a platform for monetizing an asset (similar to Airbnb), since the original idea was to monetize the otherwise "unused" time of car ownership. However, unlike a car-sharing/renting platform (e.g., turo.com), Uber most fundamentally is a labor platform on which the driver works. Indeed, Uber has increasingly moved to encourage drivers to lease cars to be able to work on the platform.

Beyond that, Uber has some special features that make it both somewhat unusual and at the same time a particularly good case for examining the politics of platform regulation and particularly of platform gig work. Two traits are noteworthy in this regard: 1) its challenge to and disruption of an existing sector, and 2) its relatively high control over the conditions of work. As a result of both, Uber has already been subject to more regulation and efforts at regulation than other platforms. We thus have a record over more than two years of regulatory politics that we can analyze to uncover some issues that are broadly important in regulation of the high-tech, gig economy and others that are specific to TNCs.

First, then, Uber presents a challenge to an existing sector. Many other on-demand platforms construct new markets in personal services where virtually none previously existed. Examples are the market for dogwalkers, pick-up and delivery of many types, assembly of retail purchases, and meal preparation. Other on-demand platforms primarily improve transaction costs for an existing market (for example plumbers, or, in the crowdworking world, coders or designers). By contrast, Uber enters, expands, and improves an existing market. It presents competition for an existing sector that is already highly regulated and that has used that regulation to defend itself by limiting

[12] It turned up an additional 143 on Google Scholar at the end of August. In addition, "uberize" turned up over 31,000 hits on Google and 14 on Google Scholar.

entry. Uber not only "breaks" (or violates) those legal barriers to entry but also provides what is widely regarded as a big improvement in service: generally much greater availability and cheaper prices, as well as advantages such as price estimates and route monitoring.

Perhaps along with Airbnb, Uber is rather unusual in so directly challenging a set of actors already supplying essentially the same service. As such, it is unusual in generating the opposition of existing, vested interests. In understanding the politics of regulation, it is important to understand just who makes up these interests. Taxi sectors differ from city to city (Mathew, Shaheen), but they often have complex structures, with different cities having different combinations of the following components: 1) drivers who are not medallion holders but lease taxis; 2) drivers who hold one or more medallions and may lease car(s) to drivers who drive other shifts; 3) medallion holders who lease to companies (who in turn lease to drivers); 4) fleet companies who lease cars and typically are major players in the markets where they exist; 5) dispatch companies; and (most rarely) 6) taxi firms that employ their drivers. Thus, the structure of the sector is complex, with taxi "drivers" encompassing drivers with no capital investment in their work and those who may own/have one medallion and car or several, which they rent out when they do not drive, to those who lease the car and drive.

It is important to remember that the vast majority of taxi drivers (whether or not they are medallion holders) are not employees, and thus are not unionized or even protected by labor law.[13] Like Uber drivers, they have been independent contractors since the taxi sector was restructured in the 1970s. Employment status is thus not the axis of their opposition to TNCs. Rather, their opposition is directed against market entry, different regulatory schemes, increased supply, unregulated fares, and, for medallion holders, the sometimes precipitously declining value of an asset. In this context, regulatory issues of market entry and competition are raised, as are those related to consumer protection and safety, which not only affect customers and the public but are also as an issue of leveling the playing field with taxis.

The second, rather unusual trait of Uber, however, does raise the regulatory issues of labor status and worker rights and protections: Uber's high level of control over work conditions. It is the "means and manner" of control exerted over the worker that defines the criteria of classification in US work law. On this issue, Uber is what is known in small-N methodology as a "crucial" (or the potentially "easiest") case for reclassification from independent contractor to employee status. Thus, it is a good case for exploring the issue of regulation, and, indeed, within the platform economy misclassification litigation has mostly been brought on TNC cases (De Stefano 23).

Several analyses as well as many online driver forums have analyzed the details of TNC platform control—and the resultant driver grievances. These have to do with selection and management of the workforce, prices, and quality standards, including car requirements or specifications, driver ratings, and deactivation (see for example, Rosenblat and Stark, De Stefano). Some of these, like driver ratings, involve algorithmic control of conditions of work, which raises issues of transparency. We will not here repeat these discussions, but instead comment on two issues: pricing/wages and hours.

Unlike crowdwork platforms and many other on-demand platforms, Uber, as well as many other delivery platforms, unilaterally sets prices. It sets prices to achieve its own goals: to carry out a market-share strategy vis-à-vis competition or to establish a new market. Central to its business model is an on-going change in prices to achieve market efficiency by equilibrating supply and demand. It does so by unilaterally setting prices—and hence wages—in four ways. First, surge

[13] Taxi drivers in Las Vegas are an exception as they are employees.

pricing consists of constant, algorithmically controlled price changes, which are implemented without advanced warning and in a "disaggregated" way. That is, price changes can be for a larger or smaller geographic area and for an unknown amount of time, which may be very short. The idea is to induce drivers to high-demand areas (and discourage requesters). Second, peak pricing operates in the same way, but at set times, such as commute times. Third, fare cuts have been implemented in most markets from time to time to generate growth: fare cuts can competitively increase market share, create demand when entering new markets, or massify the market in existing localities by making the service more affordable. Finally, driver bonuses, to maintain or expand supply can be quite frequent, with a changing and often bewildering array of conditions.

The idea of flexible hours lies at the heart of the argument for independent contractor status. It is a feature of work that Uber touts and that many drivers do in fact appreciate (Hall and Krueger 2015). As noted, it is particularly attractive to those for whom Uber driving is a compensatory mechanism and who must accommodate driving hours to other income-earning activities or who are driving casually for extra income. It is less attractive to those for whom for-hire driving is a full-time activity. Even for the former, however, the choice of hours is highly incentivized by Uber's dynamic surge pricing. Controlled and dynamic pricing may mean "flexibility" in the sense of the irregularity of profitable hours and the strategic choice to work only at more profitable times of higher hourly rates.

In addition to control, Uber is an unusual case in that the conditions for collective action would seem to be somewhat better than for other gig workers. Gig work is notoriously atomizing, and hence collective action is particularly difficult. As mentioned, like gig work in general, workers/drivers constitute a segmented workforce. Perhaps the most important division is between those for whom it is full-time vs. casual work. That said, in the case of Uber, there are many forums, blogs, and social media sites available to drivers. Also, drivers collect at common waiting places, such as airport holding lots. Furthermore, the high degree of platform control means that drivers have common grievances and a common target of grievances. That is, compared to other gig workers, Uber drivers come closer to some of the traits of workers who have traditionally been able to organize and undertake collective action. One can see this contrast most obviously with crowdworkers, but also with other on-demand workers on platforms like TaskRabbit or even other drivers on delivery platforms.

All in all, then, Uber is a particularly good case for analysis. It has the longest record of regulation, so there is an empirical base for examining the politics of regulation. Because of the unusual amount of control exercised by Uber, TNC regulation brings the labor issue into sharpest relief, making it a good case for examining the politics of labor regulation of the gig economy. Perhaps along with Airbnb, it most challenges vested interests in an extant and regulated market. It presents perhaps the "easiest" case of regulation of employee rights and in favor of competitor interests, and it presents the "easiest" case of collective action by platform workers. If regulating these issues is difficult in the case of Uber, regulation is particularly unlikely in other cases.

In the analysis that follows, we first provide a history of Uber, looking at the development of the model of UberX. We then discuss a regulatory agenda of issues that have arisen around TNCs. TNC regulation has taken place in three venues in the United States—city governments, state governments, and the judiciary. City and state governments consist of legislative bodies (i.e. city councils and state legislatures), executive bodies (i.e. mayors and governors), and delegated bodies like regulatory commissions. At both the city and state level, regulation may fall to one of these three actors (legislative, executive, or delegated) or to a combination of them. Similarly, regulation can either occur at only the city-level, only the state-level, or some combination of the

two. Finally, regulation can also occur in the judiciary (state and federal courts as well as administrative courts). We examine each of these three venues in turn.

Uber History

Uber began as UberCab in San Francisco in 2010. Possessing a different model from the one it would later adopt, UberCab was launched as an app for livery, using existing licensed black car and limousine drivers. It thus entered a sector that cities had long regulated and in a way that distinguished taxi from livery services in terms of booking regulations (laws in numerous US cities required car services—e.g. black cars, limousines, etc.—to be booked at least one hour in advance[14]) and license requirements (municipal regulations frequently require taxi drivers to undergo special training and background checks in order to get a special license to operate a taxi). UberCab provided a dispatch system that resembled a cab company but a service that resembled a livery company. This combination placed UberCab in a complex position with respect to existing regulations as it did not fit neatly into either category. Uber expanded this "hybrid" model to 5 more cities in 2011 (New York, Seattle, Chicago, Boston, and DC), and to 8 additional cities in 2012.

UberCab thus immediately presented a challenge to existing regulatory agencies, which sought to fit it into the prevailing regulatory framework at both the city and state level. In its first market, San Francisco, the San Francisco Municipal Transportation Authority and California Public Utilities Commission (CPUC) issued a joint cease and desist order in October 2010. UberCab, hoping to distance itself from an association with the taxi industry, changed its name to Uber immediately after the order was issued. Despite initial involvement by the city of San Francisco, the CPUC ultimately assumed responsibility for establishing the first regulatory framework for TNCs in California in 2013.

As Uber expanded to New York, Seattle, Chicago, Boston, Los Angeles, and Washington, D.C. in 2011, it faced similar challenges from regulatory agencies. In Boston, it was the state-level Division of Standards that issued a cease and desist order to Uber Boston in August 2012. In New York City, the municipal-level Taxi and Limousine Commission (TLC) instituted a ban on Uber in October 2012. That same month, the Department of Business Affairs and Consumer Protection in the city of Chicago attempted to implement regulations on Uber to prevent the company from utilizing meter-determined pricing, thus regulating it more like a livery service than a taxi company. As illustrated by the aforementioned examples, early challenges to Uber's operation emanated primarily from regulatory agencies at the city and state level, which attempted to place Uber within the existing framework of regulations for taxi and livery services.[15]

In the middle of 2012, Lyft and Sidecar launched a different model, one that altered the direction of ride-hailing apps as well as the regulatory conversation that accompanied its expansion. Two traits were crucial: non-professional private drivers using their own cars and a suggested, non-mandatory price for the ride. The model was thus closer to a peer-to-peer or "sharing economy" model, on which in fact it was based.

Uber adopted this new model as UberX but with the important change of a mandatory fee set by the platform. The following year this model saw an enormous expansion to many more cities and raised a new set of regulatory challenges. With the use of private drivers in their own cars, Uber

[14] http://techcrunch.com/2010/10/24/ubercab/

[15] A notable exception to this was Washington, D.C. where the elected city council passed very minimal regulations on companies like Uber in 2012.

moved out of a clearly regulated sector of taxis or black cars and seemed to present a problem of putting square pegs into round holes. If in the earlier model regulators were trying to decide what kind of transportation company UberCab was, the new model presented the problem of deciding what kind of company UberX was, as Uber argued that it was not a transportation company and as such should not be subject to the same regulations.

Unsettled, then, were a number of issues that were regulated for taxis and limos, concerning proper licensing, public safety, and consumer protection. Since Uber recognized that rider trust was central to the model, it adopted a set of driver checks and car requirements and thus sought to accomplish privately what public regulatory bodies had done. Indeed, analysts such as Sundararajan and Lobel advocate self-regulation as an appropriate approach to these issues, precisely because of the incentives inherent in the model. Nevertheless, regulation around these issues became contested.

These potentially self-regulatory requirements set down by the platform as well as the fact of platform price-setting further highlight the additional issue of employee status, which is based primarily on the criterion of control. While Uber drivers, like most workers on on-demand platforms, were considered independent contractors able to set their own schedules and accept or reject "gigs," Uber in fact exercises a great degree of control over many aspects of the gig, particularly over issues of pace of work (e.g., who gets a request and how long one has to respond), the operation of the rating system, driver deactivation, and dynamic pricing, as several analyses have detailed.[16] Such a high level of control does not easily fit into the independent contract pattern, and the legal status of the driver, as independent contractor or as employee has become a major issue of contention.

Uber opposes employment status for drivers as it views the business model as being dependent on temporary, part-time, or even casual drivers. As then Uber Vice President of Policy and Strategy David Plouffe said, "For most people, driving on Uber is not even a part-time job…it's just driving an hour or two a day, here or there, to help pay the bills."[17] The business model requires two types of flexibility: hourly flexibility to meet demand peaks and ease of entry, not only for seasonal fluctuation and expansion, but also because the rate of exit is so high, both because it is widely considered short-term or stop-gap work and because of dissatisfaction. Analysis based on Uber's own data indicates that nearly half of Uber drivers will remain active for less than one year (Hall and Krueger 2015). Because of the desire to expand and massify the ride-hailing sector combined with this drop-off rate and the short-term flexibility of supply inherent in the model, it is crucial to maximize facility of driver entry. While Uber opposes regulation generally, of particular concern and generating the greatest opposition are those that constitute barriers to entry, with fingerprint-based background checks being the cause of Uber's withdrawal from two different cities.

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[16] Perea, Christian. "How Uber Uses Behavior Modification To Control Its Drivers." *The Rideshare Guy Blog and Podcast for Rideshare Drivers*, October 17, 2016. http://therideshareguy.com/how-uber-uses-behavior-modification-to-control-its-drivers/; Kyung Lee, Min, Daniel Kusbit, Evan Metsky, and Laura Dabbish. "Working with Machines: The Impact of Algorithmic and Data-Driven Management on Human Workers." *ACM*, 2015.; Alex Rosenblatt. "The Truth About How Uber's App Manages Drivers." *Harvard Business Review*, April 6, 2016; Rosenblat, Alex, and Luke Stark. "Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, July 30, 2016. https://papers.ssrn.com/abstract=2686227. See also Amended complaint, NYTWA, et. al. v. Uber et. al. (filed Oct. 2016).

[17] https://newsroom.uber.com/1776/

REGULATORY AGENDA

Analysts in foundations, NGOs, blogs, and academies, as well as vested interests have raised a number of regulatory issues with respect to the gig economy in general and TNCs in particular. Of the many issues that have been brought up, public officials have taken action on only a subset of them. In considering the politics of regulation, we have attempted to construct the full list of issues in order to highlight not only what has happened, but also what has not, either because actions initiated have failed to pass or because issues have not even made it to the agenda of an appropriate body of the government. We distinguish six categories: worker protections, safety requirements, consumer protection, other competition, public goods, and driverless vehicles.

The first two concern consumer protection and safety. These are regulations that can be seen in terms of their face value—the very purposes indicated in the label, "consumer protection and safety." However, because taxicabs already face these regulations and TNCs are seen as entering this sector, addressing consumer protection and safety can also be seen as an effort to affect competition, or to level the playing field. Indeed, taxis often make demands for such TNC regulation on these grounds of competition and fairness. Beyond these issues are other competition-related regulations that relate specifically to competition between Uber and the taxi sector. These regulations we include as "Other Competition." A fourth category of regulation includes a set of items related to labor. A fifth are those related to public goods, like taxation (government revenue) and emissions control. In some cases, as with hybrid vehicles, public goods requirements can affect competition. Finally, we include a category for regulations that address driverless cars. While regulations of driverless cars often crosscut several of the previous categories, the particular regulations are distinct from those for taxis and non-autonomous TNC vehicles.

The regulations in these six categories, then, represent a regulatory agenda (Table 1). In the analysis that follows, we ask which of these items—and which categories—have been most consistently addressed or neglected. In the state analysis, we explicitly score states based on the regulations that have passed in each of these categories. In the city and court case analyses, the comparisons focus on particularly contentious items from each of these categories (e.g. collective bargaining rights for workers, fingerprint-based background checks).

Worker protections

Labor rights and worker protections rank prominently in discussions about TNC regulation. Broadly speaking, these regulations concern the interactions between TNCs and their drivers. One of the fundamental issues is the classification of workers as TNC employees or independent contractors. Uber consistently argues that it simply offers the technology to match riders with drivers. Those advocating employee status point to Uber's level of control over conditions of work, as discussed in the previous section. The struggle over drivers' employment status is of particular relevance because it determines the balance of power between TNCs and workers and is central to both TNCs' model of doing business and labor unions' model of collective bargaining. If workers were classified as employees of TNCs, they would have the right to negotiate their conditions of employment with management, potentially through a labor union. They would also be covered under other preexisting laws that establish minimum wages, Social Security contributions, overtime compensation, and other employment safety nets. Provision of these social protections would undoubtedly result in a dramatic increase in the cost of operation for TNCs and, as might be expected, reclassification attempts have been met with intense resistance. An alternative regulatory path is accepting workers' current categorization as independent contractors but

nevertheless giving them organizing and bargaining rights. Such a regulation might not be limited to TNCs but rather might be adopted for a boarder category of independent contractors. Another set of regulations mandates specific worker protections and benefits. These regulations include wage requirements, restrictions on sharing driver information, and other regulations listed in the table below. Particularly salient for drivers are transparency of Uber's presently hidden algorithms, which are used to determine ratings, wages, and deactivation. In addition to policies aimed at improving transparency, drivers prefer policies that directly address wage uncertainty.

Safety Requirements

A number of safety regulations that have been required of taxis also arise in the case of TNCs. Uber has adopted many procedures for addressing potential safety issues such as vehicle inspections and background checks. The question is whether or not these procedures should be in the hands of an external actor or if Uber's internal procedures are sufficient. In general, as noted above, Uber resists external screening and monitoring as a rigidity in driver supply, as the driver pool needs to be continually expanded and replaced. Uber has been particularly resistant to fingerprint-based background checks.

Consumer Protection

Consumer protection regulations fall into one of two sub-categories. First are regulations to ensure that customers have equitable access to the market and to preserve the integrity of a market transaction. Such regulations include requirements that prevent discrimination of customers, mandate the provision of accessible vehicles for riders with disabilities, mandate fare calculation disclosure, and require companies to provide customers with an electronic receipt. A second sub-category of consumer protection is insurance, which is not simply a protection for the customer, but also for others on the street.

Other Competition

Other regulations affect competition between TNCs and the extant taxi sector but do not clearly fall into the category of safety or consumer protection. Many of these regulations have the purpose of leveling the playing field, but some are protective of one industry or the other. Vehicle caps can work either way. Sometimes regulations cap the number of TNC vehicles in operation. In other cases, the number of taxicabs, which has traditionally been capped in many cities, is expanded by city officials to allow taxis to more easily compete with TNCs. Permit and fee structures are other ways that regulators can favor one industry or the other. All these issues of competition are particularly salient because a central aspect of taxi regulation has historically been to restrict barriers to entry.

Public Goods

Aside from UberPool, Uber presents an individualized, as opposed to mass or shared, approach to transit. It thus raises a number of regulatory issues with respect to its relationship to public transportation. On the one hand, it may be an alternative to public transit where it exists and potentially undermine it by lowering demand. On the other hand, there have been agreements in

Table 2. Regulatory Agenda

Worker protection	Status: employees or independent contractors
	Right to organize and bargain collectively
	Minimum wage
	Transparent rankings & process of deactivation
	Transparent wage structure
	Dispute resolution mechanism
	Driver privacy
	Ban penalizing drivers that organize or protest
	Ban discrimination against workers
Safety	Background checks
	Commercial licenses
	Driver training
	Decal visibility
	Vehicle inspection regulations
Consumer protection	Non-discrimination
	Fare disclosure
	Accurate fare calculation
	Accessibility
	Minimum insurance requirements
	Define and limit use of TNC consumer data
Other competition	Permits and other driver fees
	Airport fees
	Reporting requirements
	Caps on number of vehicles
	Ban ride-pooling
	Ban leasing of vehicles
	Prohibit cash payments
	Ban street hails
	Prohibit harsher legislation at the local level
Public goods	Limits on surge pricing
	Pollution
	Congestion
	Coordination with other forms of public transit
	Ride-pooling
	Taxation
Autonomous Vehicles	Product development, design, and testing
	Alternative fuel sources
	Per-mile taxes

some cities, under which Uber connects individuals to public transportation in a last-mile system that makes public transportation more accessible. The Transit Center, a transportation-oriented policy institute, has further argued that local governments could subsidize TNC use along corridors that are presently served by underutilized public transportation.[18] Uber's individualized approach to transportation generates additional externalities of public concern that are not simply linked to public transit. The use of Uber and other TNCs may increase traffic congestion and pollution, which have at times served as a justification for the implementation of vehicle caps. The regulation of surge pricing has arisen, especially at times of emergency. Finally, taxes and fees generate revenue for government-provided services and also often address competition between taxis and TNCs.

Autonomous Vehicles

Driverless cars have heretofore been treated almost exclusively as a safety issue in the United States. The federal government has authored a set of regulations that dictate standards for the design and development of driverless cars, while city and state governments have proven far more concerned with the regulation of the on-road testing of autonomous vehicles. Yet, regulatory responses to driverless cars have implications for not only passenger and public safety, but also categories of regulation that have not been explicitly addressed in the initial phase of regulation. One aspect of autonomous vehicle regulation that has received some public attention and speculation is the displacement of drivers as part of the larger issue of technology-driven unemployment, making the regulation of self-driving cars a labor issue. Among TNCs, Uber is at the forefront of developing and testing autonomous vehicles. If this automation allows Uber to cut costs by eliminating its workforce, driverless cars will also affect competition with other TNCs as well as with taxi firms. Autonomous vehicles may also become a public goods issue. In 2013, the Council of the District of Colombia enacted a bill that initially required per-mile taxes for driverless vehicles as well as the use of alternative fuel sources, but this language was struck from the final text. In comparison with the aforementioned categories of regulation, a particularly unique feature of driverless cars is that regulations are neither solely nor explicitly directed at TNCs. Instead, a number of automobile and technology firms have developed or are in the process of developing their own driverless cars, and thus, TNCs are but one of a number of firms that are directly affected by regulatory decisions on self-driving vehicles.

ARENAS OF REGULATION: CITIES, STATES, AND COURTS

We undertake an empirical analysis of regulation in various venues. At both the city and state levels, regulation occurs through legislative processes in city councils and state assemblies as well as through administrative processes in existing regulatory bodies. Elected officials and unelected officials that serve in regulatory bodies are somewhat more "active" regulators in that they can initiate regulations. Regulation can also occur through more "reactive" legal processes in federal, state, and administrative courts. In the courts, action can be described as either rule-making or enforcement, a distinction we describe below, but these decisions are necessarily taken in response to a lawsuit and cannot be raised independently as they can be in legislatures and regulatory bodies. Both cities and states have regulated in the areas of safety, consumer protection, and other competition. With few exceptions, they have failed to regulate in the areas of worker rights or public goods. Courts have taken a stronger role in regulating worker rights, while also addressing consumer and safety concerns and competition issues.

[18]http://transitcenter.org/wp-content/uploads/2016/09/TC-Private-Mobility-Public-Interest-20160909.pdf

Despite certain areas of convergence, city governments have departed from Uber's preferred regulations more often than state governments have. States have often followed Uber's model legislation, which addresses only insurance requirements, and states have only rarely implemented policies that Uber sees as anathema to its business model, like fingerprint-based background checks.. Where states have been "high regulators" it has generally been in relatively uncontroversial matters of consumer safety and other competition regulations. Uber has on several occasions sought state assistance in overriding certain city-level regulations.[19] That states have been less aggressive regulators than cities may reflect the fact that state governments also represent rural constituencies with policy preferences that tend to be more conservative—and hence potentially more anti-regulation—than city governments, whose urban residents hold more progressive policy preferences (Figure 1). States and cities also differ in the interaction of elected and unelected regulators. In many states, like California, elected bodies and regulatory agencies have shared responsibility for regulation, whereas in cities, either elected officials *or* regulatory bodies have assumed primary authority over TNC regulation.

REGULATION BY CITY GOVERNMENTS

When taxis replaced horse carriages for-hire at the end of the 19th century, city governments took primary responsibility for governance of the industry. Almost one hundred years later, when Lyft, Uber, and Sidecar were launched in cities across the country, city officials once again debated the best way to address these entrants, which were structured differently from the taxi sector and yet provided the same service.

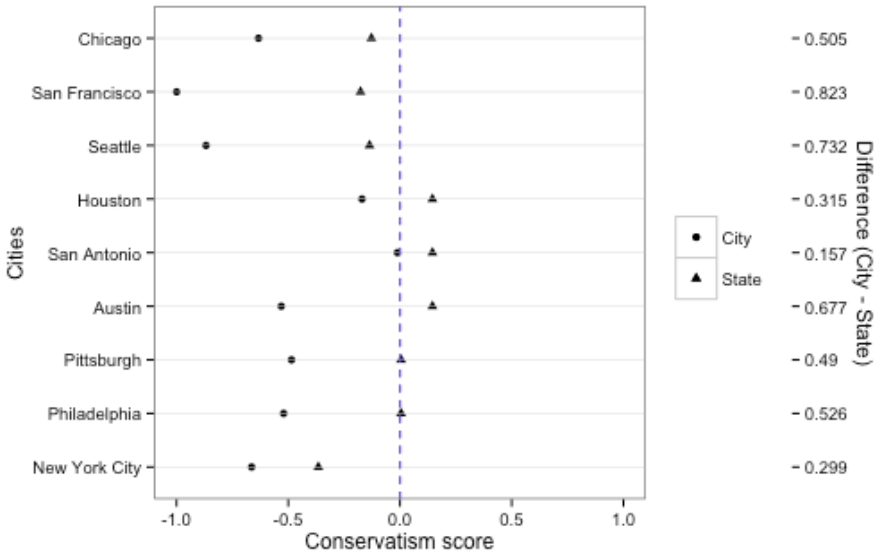

Figure 1. City and State Ideology (Public Preferences)

Source: Warsaw and Tausanovich, American Ideology Project

[19] In both Texas and Pennsylvania, Uber has lobbied state legislators to override city-level regulations in Austin and Philadelphia.

The challenge for city officials and regulators has been to decide if these platforms are technology companies, as the companies insist, or transportation companies, as taxis insist, and how, if at all, to regulate them. The way cities have resolved these questions occupies a central place in four steps of city-level TNC regulation. First, prior to their initial decisions about whether and how to regulate, city officials decide how they will address TNC entry as a fait accompli. TNCs rarely enter new markets through established legal routes (e.g. asking permission) and instead do so using an "act-first-apologize later" strategy. Officials essentially have two options—allow TNCs to operate until a regulatory framework is established or ban TNCs—through cease and desist orders and law enforcement—until regulations are enacted. In a second step, responsibility for TNC regulations is determined, as elected officials and/or existing regulatory bodies assume the task. Such a distinction is important because regulatory officials may be insulated from the electoral concerns and hence lobbying pressures faced by elected officials. Third, regulations must be formulated. Regulations have taken a variety of forms, but cities have primarily addressed issues of safety, competition, and consumer protection issues. Public goods and labor issues have been virtually ignored. No formal regulations have been passed at the city level with respect to autonomous vehicles, but Uber's refusal to abide by city and state regulations in testing these vehicles has strained relations with otherwise tech friendly governments in Pittsburgh and San Francisco.[20]

The fourth and final step is the reaction to the regulations, which may be a protracted interaction between TNCs and regulatory decision makers. TNCs must decide how they will respond to regulations, particularly those that they consider a major challenge to their business model. The most dramatic regulations in this regard are perhaps fingerprint-based background checks for drivers and caps on the number of vehicles in operation, both of which are seen as a threat to the business model by constraining supply.[21] As a result, TNCs have vigorously opposed such regulations in most places, employing both insider strategies targeted at legislators and outsider strategies, which have the purpose of mobilizing the public and drivers. Cities must then decide how they will respond to these actions.

At the city level, we conduct an analysis of 9 cities. For the most part, these cities fall into three categories, which embody preexisting characteristics that we might expect will affect the way cities regulate. The first group consists of hi-tech cities and includes San Francisco and Seattle, cities that have been hubs of innovation from the earliest stages of the hi-tech revolution. These are also the most progressive cities of the nine we study (Figure 1). Hence, we might have expected they would regulate in a way that is friendly to hi-tech interests, given that hi-tech firms hold influence and account for a great deal of local economic activity. At the same time, however, to the extent they are progressive, we might expect them to regulate more heavily, especially with respect to customer and worker issues. Consistent with these contradictory predictions, we found no general trend in how these cities have regulated TNCs. San Francisco has taken a relatively laissez-faire, tech friendly approach to regulation while Seattle has been the most aggressive of the nine cities in regulating workers' issues, specifically by granting drivers the right to bargain collectively.

[20] The California DMV ordered Uber to cease testing of autonomous vehicles in San Francisco after the company refused to abide by the regulations set forth by the state.

[21] The importance to Uber of very flexible entry of drivers with a minimum of requirements is evidenced by impressive growth in the Uber workforce. According to a study by Hall and Krueger (2015), the number of Uber drivers doubled every six months between January 2013 and January 2015 (p. 13). In January 2015 alone, nearly 40,000 new drivers joined Uber (Hall and Krueger 2015, p. 13).

Houston, San Antonio, and Austin are similar in a number of respects in their experience with TNCs. All three cities are located in a conservative state—Texas—that has implemented only minimal state-level insurance requirements, which simply codify the model legislation jointly put forward by TNCs and insurance companies. TNCs entered all three cities in 2014 and immediately faced fines and sanctions from law enforcement officers. Most notably, all three cities stand out in having enacted fingerprint-based background checks, a regulation that Uber and Lyft claim is anathema to their business model and that they have fought more vigorously than perhaps any other.

New York, Chicago, and Philadelphia are older, large, industrial cities with dense, urban centers. They also possess better-established, historically strong taxi lobbies than other cities included in this analysis.[22] These three cities also have generally been the strongest regulators of TNCs with Chicago and New York implementing strong safety and competition regulations, while Philadelphia long maintained a ban on UberX. All of these cities also have long-standing regulatory commissions that are responsible for regulating the ride-hailing sector, although only in Philadelphia and New York have these regulatory agencies become deeply involved in TNC regulation.

Finally, we analyze Pittsburgh, which is both an old industrial city and an emerging tech hub. However, unlike Philadelphia, New York, and Chicago, Pittsburgh lacks the historically strong taxi sector that characterize those cities. Also, unlike the hi-tech cities considered above, it is not a site of "first generation" hi-tech innovation. Rather, it is an example of a city that felt the brunt of industrial decline and has attempted to relaunch growth and renewal by attracting hi-tech investment. Pittsburgh political officials have actively attempted to refashion the city as a tech hub, attracting investments from companies like Apple and Amazon. Uber hired away research teams from Carnegie Mellon's robotics department and recently established an Advanced Technology Center in Pittsburgh to develop its self-driving cars. In Pittsburgh, there exists no strong regulatory agency as in New York or Philadelphia, and without such an agency, elected officials have emerged as the key actors in making regulatory decisions. These decisions tend to favor emergent tech companies, as Mayor Bill Peduto noted when he labeled his administration a "startup government."[23]

Table 3 summarizes the steps of regulation. Timing, rather than type of city seems to be important in the regulatory response to Uber in the initial step of regulation. In San Francisco, Seattle, New York, and Chicago, which were all early launch cities for Uber and UberX, little was done to prevent Uber's operation upon entry. Such rapid entry into these markets is characteristic of Uber's "act-first-apologize-later" approach, by which the company operates regulation-free and forces local or state governments to respond reactively, after establishing a base of customers who are loyal to the app and a base of drivers who depend on the app for income.[24] In the three Texas cities and Philadelphia, UberX launched later—in 2014—after other cities and states had begun to regulate. In these cities, the entry of Uber was met with a ban enforced by the police. In Pittsburgh, an early order by a state judge that TNCs cease and desist operation in the city was quickly overridden by a state bill that allowed TNCs to operate freely in the city.

[22] San Francisco also has an old, historic taxi industry, but it is a smaller city and from the late 1970s-2009, medallions were non-transferable and had no monetary value. Without medallions as high-value assets, taxis had less lobbying power in the San Francisco regulatory arena. See Dubal, Veena, Drive to Precarity, 38 Berkeley J. of Employment & Labor Law 73 (2017).

[23] https://qz.com/874548/uber-asked-a-lot-of-pittsburgh-for-its-self-driving-cars-and-offered-back-very-little/

[24] https://qz.com/781151/why-is-uber-rushing-to-put-self-driving-cars-on-the-road-in-pittsburgh/

Table 3. Regulatory steps by cities

City	**Step 1** *Pre-Regulation: Initial Response to TNC Entry*	**Step 2** *Regulation: Regulatory body*	**Step 3** *Regulation: Particular features*	**Step 4** *Post-Regulation: Responses to regulation*
San Francisco	Issued cease and desist, unenforced.	Issued cease and desist, unenforced.	No regulation	N/A
Seattle	No action	City council (*ex officio* sponsor) with an active mayor	Strong labor (Drivers' right to unionize)	Successful Uber protest of cap; formal challenge of unionization ordinance but no change as of August 2016.
Austin	Ban, police enforcement	City council	Strong safety (Fingerprint-based background checks)	Uber and Lyft, after organizing and losing public referendum on fingerprinting, leave city
Houston	Ban, police enforcement	City council	Strong safety (Fingerprint-based background checks)	Lyft leaves city over fingerprinting; Uber initially accepts and then threatens to leave city but remains as of August 2016.
San Antonio	Ban, police enforcement	City council with an active mayor	Strong safety (Fingerprint-based background checks)	Uber and Lyft leave in response to fingerprinting. City changes regulation to make fingerprinting optional.
Philadelphia	Ban of UberX, police enforcement	Regulatory agency, state legislature	Poorly enforced ban followed by state regulations that address public goods (taxation)	Uber continues operating UberX service. Lobbying efforts targeted primarily at state legislature.
Pittsburgh	Ban imposed by state judge, overridden by state legislature	State legislature, city council with active mayor	No regulation, seeks collaboration with Uber for testing and implementation of driverless cars	N/A
New York City	Brief ban of Uber	Regulatory agency with active mayor	Strong competition, consumer protection, and safety	Uber successfully mobilizes against mayor's proposals but does not mobilize against proposals enacted by regulatory agencies.
Chicago	No action	City council with active mayor	Strong consumer protection, competition, and safety	Uber successfully mobilizes against fingerprinting ordinance.

The second step of regulation concerns who takes primary responsibility for regulating TNCs. The actors in city government who have assumed a major role have varied somewhat. In most of our cases, city councilmembers have taken responsibility for regulations. The major exceptions have occurred in cities that possess powerful regulatory agencies, which were long ago delegated regulatory authority over taxis. Where such historically strong regulatory agencies exist, they have almost unilaterally controlled regulation. In New York, Mayor De Blasio attempted and failed to impose additional regulations on Uber. Politicians in Philadelphia also had a difficult time contesting the authority of the Philadelphia Parking Authority (PPA), an agency that long held total, citywide regulatory authority over TNCs. Even when elected city officials successfully lobbied to remove the PPA's power over TNC regulation, they did not gain the power to set the rules for TNCs, a task reserved for state-level officials. In Chicago, the agency responsible for regulating the for-hire industry is the Department of Business Affairs and Consumer Protection, an agency that is not as highly specialized in regulating transportation as the TLC in New York or the PPA in Philadelphia. As such, it did not play a comparable role to that of regulatory agencies in the other two old, industrial cities. Instead, the elected city council has played a larger role in establishing regulations.

Mayors have become involved in the regulatory process in two ways. First, they have played an important role in engineering compromises among major stakeholders. In Seattle and San Antonio, mayors organized inclusive bargaining processes to ensure that regulations were acceptable to both taxi companies and TNCs. Similarly, Mayor Rahm Emanuel was instrumental in brokering a compromise with taxi companies and medallion holders when TNCs were given permission to operate in Chicago. In other cases, mayors have played an important role in lobbying for the virtually unfettered operation of TNCs. In some cases, like San Francisco and Pittsburgh, mayors have publicly announced their unwillingness to regulate in order to encourage a tech-friendly business climate.[25] It is noteworthy that in only one case has a mayor taken an active and clearly oppositional stance to TNCs. In New York, Mayor Bill De Blasio proposed vehicle caps on TNCs, a proposal that he ultimately dropped after a strong lobbying effort by Uber.

Third, the strongest regulations on TNCs have come from the three industrial cities. In Philadelphia, the PPA long banned TNCs; in Chicago, TNCs face certain regulations that are stronger than taxicabs; and in New York, taxicabs and TNCs face the same regulations including the requirement of driver training, fingerprint-based background checks, and commercial licenses for drivers. Thus, in terms of extensiveness, the old industrial cities can be considered the strongest regulators, although the ban in Philadelphia was not always strongly enforced.

With respect to the form regulation has taken, certain categories of regulation have been addressed more frequently than others. Cities have overwhelmingly acted on consumer protection and safety issues. They have more rarely acted on regulations that Uber considers incompatible with its business model. The Texas cities and New York are the only cities of our nine that have implemented fingerprint-background checks, which is perhaps the regulation that TNCs, and especially Uber, most strongly oppose. Only

[25] More recently, however, Uber's aggressive action in testing autonomous vehicles, as well as its refusal to stop action in response to President Donald Trump's immigration ban, has resulted in sharp criticism from mayors of both cities.

Seattle has enacted labor regulations, specifically the right of drivers to bargain collectively, although the legality of these regulations continues to be contested, and Uber has argued strongly against this ordinance.[26] It should be noted that granting drivers the right to collective bargaining sidesteps the issue of misclassification, an even greater concern for Uber and one that has been much debated but never acted upon in any of our nine cities. Despite a political moment in which environmental concerns are paramount, only New York has even proposed public goods regulation, which would have capped the amount of TNC vehicles in an attempt to control emissions, but this regulatory effort failed. Uber also successfully fought the imposition of vehicle caps in Seattle. Uber argues that an important part of its business model is to ensure that supply and demand are adequately matched, and thus it needs a large number of cars on the road at any given time. Vehicle caps go against this business model and have sparked a strong oppositional response from Uber, as we discuss below. While autonomous vehicles are a relatively new area of regulation, they have already proven to be controversial. Pittsburgh has collaborated with Uber to encourage testing and development, but, Uber's aggressive approach to testing in San Francisco has generated tension with an otherwise tech friendly city. Pittsburgh officials have recently taken issue with Uber's aggressive approach in dictating the terms of autonomous vehicle regulation in the city, which threatens to strain the relationship between the company and the Pittsburgh government.

Finally, the fourth step of the regulatory process is the response of Uber to enacted regulation. The variation is notable, and most clearly seen in the Texas cases, where Uber had to respond to fingerprint-based background checks, the provision it has resisted more than any other. Uber accepted fingerprinting in Houston, as it had earlier in New York City, but did not in either San Antonio or Austin, where Uber left both cities in response to their respective ordinances. Although Uber has asserted it will not accept fingerprinting in Houston, it has yet to act on the threat. In San Antonio, city officials changed the fingerprinting ordinance in order to bring Uber back to the city, whereas Austin officials have not responded to Uber's exit. Generally, Uber appears more willing to accept fingerprinting in large cities like New York and Houston, where it has threatened to leave but has never followed through on that threat.

In its approach to influence or change regulation, Uber has used a combination of insider (i.e. direct lobbying of elected officials) and outsider (i.e. mobilizing drivers, customers, and the public move generally) strategies. The outsider strategies are particularly notable. The app has proven to be a powerful tool in coordinating popular participation to advocate for Uber's position on regulatory matters. One strategy is to initiate a referendum put before voters as a way to contest city-level regulations with which Uber disagrees. In Seattle, Uber mobilized a referendum effort to challenge caps on the number of TNC vehicles that would be allowed on the road at a given time, while in Austin a referendum was organized to contest fingerprint-based background checks. A second outsider strategy uses the app to present a "view" of its app that corresponds to elected officials—such as the De Blasio view in New York and the Kitchen view in Austin: when a customer opens the app, a pop-up message appears, which asserts that elected officials, like Mayor De Blasio of New York and Councilwoman Ann Kitchen of Austin, are proposing regulations that make it impossible for Uber to operate. Customers are then provided with a link they can click to email the officials to note their opposition

[26] http://www.geekwire.com/2016/seattles-landmark-uber-union-law-set-go-effect-city-releases-final-rules/

to regulations. A third strategy used by Uber moves outside of the app and focuses on online petitions. One example is Philadelphia, which originally had a ban on UberX. In an effort to legalize UberX in the city, Uber organized a petition, which was publicized through cable and broadcast news and ultimately garnered 127,000 signatures in support of granting UberX permission to operate in Philadelphia. The cases examined above suggest these strategies are most likely to be employed in response to proposals involving vehicle caps and fingerprint-based background checks. These strategies have been employed primarily against elected officials, and we have not found evidence that they have been targeted at regulatory agencies. While the direct effects of these efforts cannot be meaningfully measured, Uber's goals were ultimately accomplished in eliminating vehicle caps in Seattle, legalizing UberX in Philadelphia, and avoiding the vehicle caps proposed by Mayor De Blasio in New York City.

REGULATION BY STATE GOVERNMENTS

Despite the very limited role that state legislatures have historically played in regulating the ride-hailing industry, states *have* played an important role in regulating transportation network companies, with 34 states passing regulatory legislation as of August 2016. This section examines variation in regulation of TNCs passed by state legislatures. We focus on degree rather than nature of regulation because states' degree of regulation across categories is highly correlated (Table 4). Thus, states tend to be generally high and low regulators (Figure 2).

The "usual suspects" do little to explain the divergence in high and low regulators. That is, neither measures of ideology nor partisanship nor urbanization are associated with level of regulation (Table 5, Appendix 1, 2, and 3). These are bipartisan processes, with most bills passing with over 70 percent support from both parties (Figure 3). Bills tend to be sponsored by heads of relevant committees, who see this regulation as an issue for which they have responsibility, perhaps initiated by lobbying. The politics that follow is an interplay between lobbyists and elected officials.

To date, 44 states have adopted legislation to regulate TNCs and have done so in ways that reveal substantial variation in the scope of regulatory measures. Some states have regulated on one area of the regulatory menu laid out above, while others have regulated on several. Insurance is the common regulation: all states have adopted some regulation of insurance coverage, albeit with somewhat different levels of mandatory coverage. Colorado and California were the first two states to regulate TNCs and to regulate insurance for TNCs. Subsequently, the insurance companies, which advocated mandatory commercial insurance, and the TNCs—Uber and Lyft—which had opposed it, saw a benefit in joining forces and promoting legislation that articulated their preferences. The negotiated model legislation advocated insurance requirements during the three stages of the drivers' work (i.e. before the rider is assigned, on the way to pickup a rider, and when a rider is in the vehicle), but TNCs were to share the responsibility for providing coverage with drivers, thus putting a financial burden on drivers.[27]

[27] In practice, TNCs like Uber, have provided liability coverage of $1 million and collision coverage during the second and third stages, which cover from the time a rider is assigned until she leaves the car. Yet, during stage one, TNCs will only cover $25,000 in liability coverage. Further, if drivers use their personal insurance plan instead of having a hybrid

Table 4. Regulations passed by category: Correlation matrix
(% of regulations listed in Table 2)

	Consumer protection	Other competition	Safety
Consumer protection	1	0.8356	0.7369
Other competition	0.8356	1	0.7535
Safety	0.7369	0.7535	1

Colorado and California, the first two states to regulate TNCs illustrate the strength of concentrated actors, the weakness of disperse actors, and the regulatory game between politicians acting *ex officio* and vested interests. With respect to the latter, these two states are particularly illustrative of the insider-outsider strategies of Uber.

Both Colorado and California began the effort to regulate TNCs because of insurance coverage gaps. The impetus for acting on gaps in insurance coverage was the death of Sophia Liu, a six-year-old girl who was struck and killed by an Uber driver on January 1, 2014. In the following two months, both Colorado and California proposed laws that TNC drivers must be covered by a commercial insurance policy whenever they had the app on and were waiting for rides.[28] The onus was thus placed on the insurance market to create hybrid commercial and personal insurance plans and on drivers for purchasing these plans. A significant difference between the states, however, is that the California legislation went no further, addressing only insurance coverage. Colorado's, by contrast, enacted far more comprehensive legislation, which addressed issues of consumer protection and safety.

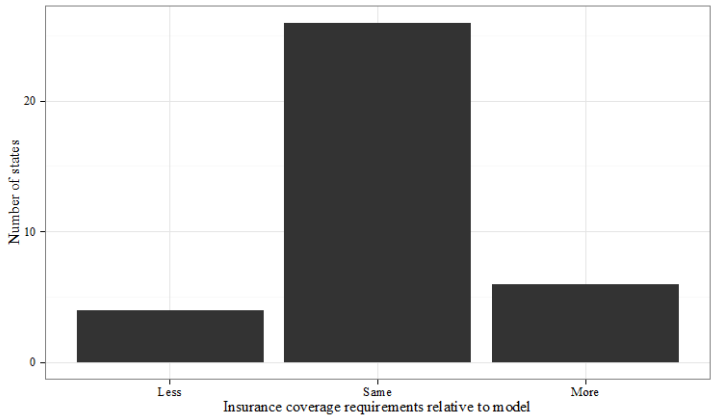

Figure 4. Histogram of state level action on insurance relative to the model

personal-commercial insurance plan during phase one, they risk higher insurance rates or losing their insurance coverage altogether.

[28] In California, the entire purpose of the first regulatory effort was to clarify TNCs' responsibility with respect to insurance coverage as the only provisions in the bill addressed insurance.

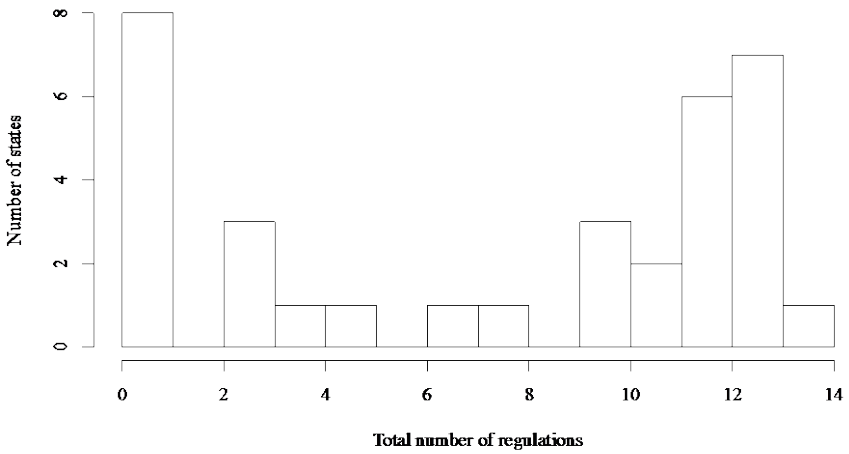

Figure 2. Histogram of total number of regulations (states)

Table 5. T-tests of differences between high and low regulators

	High regulator mean	Low regulator mean	Difference (High−Low)	P−value
Legislator Ideology	0.104	0.084	−0.021	0.742
Citizen Ideology	0.328	0.192	−0.137	0.667
% of Republicans in State House	0.635	0.583	−0.052	0.298
Urbanization rate	0.693	0.772	0.079	0.148
Urban primacy	0.101	0.109	0.008	0.733

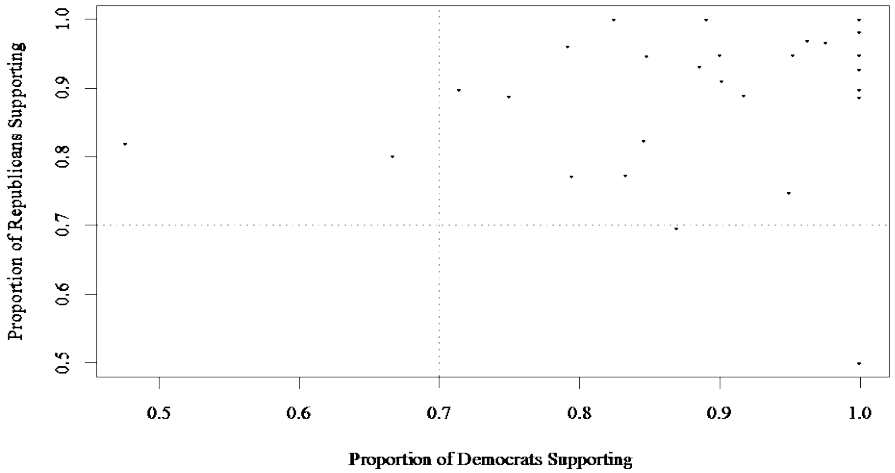

Figure 3. Bipartisan Support of TNC Regulation

Colorado and California also illustrate the *ex officio*, rather than partisan nature that often characterizes the regulatory process. In both states, TNC regulation bills passed with bipartisan support.[29] Rather than a partisan process, we see the initiating role of heads of policy-relevant committees. In Colorado, Cheri Jahn, the chair of the Business, Labor, and Technology Committee, spearheaded the regulatory effort while in California it was the chair of the Business and Consumer Protections Committee, Susan Bonilla, who led the initial attempt to regulate TNCs. Assemblyman Mike Gatto, head of the Consumer Protection and Privacy Committee, also led a later effort in California to regulate TNCs. That state-level regulations have been so closely associated with policy-relevant committees suggests that the impetus for regulation is not coming from organized or mobilized citizen demands but rather from the regulatory authority of the committee and in the case of California, also from concentrated insurance actors.[30] Of the 38 bills passed to regulate TNCs, 17 have had chairs of relevant committees or the entire committee itself as their primary sponsor. All but 6 bills have had at least one *member* of a relevant committee as a primary sponsor.

In both Colorado and California, we see that regulations have been primarily driven by assembly members acting *ex officio*. In response to these actions, we can also observe the role of vested interests, which attempt to influence regulatory outcomes. Two of the most obvious actors involved in both states were TNCs, which have largely been against any kind of regulation, and taxi companies, which have sought to "level the playing field" between taxi cabs and TNCs, if not to exclude TNCs from competition altogether. The initial salience of insurance also increased the involvement of insurance companies in lobbying as TNC drivers were driving commercially with only their personal insurance, and this new, large class of commercial drivers opened a new market for insurers. These companies wanted to ensure that drivers were not using their personal policies to cover periods in which they were driving for TNCs.

Uber has engaged in frequent mobilization against regulations that it views as restricting its business model. The 2014 regulatory debate in California is particularly illustrative of the dual strategy employed by Uber: an insider strategy of lobbying and putting pressure on legislators as well as an outsider strategy of mobilizing popular and consumer (or consumer *and* driver) support. Uber lobbied state legislators in a number of ways. It hired 14 of the top 15 lobbying firms in Sacramento. It enlisted the support of other groups, such as Mothers Against Drunk Driving (MADD) and the Downs Syndrome Society, which lobbied on behalf of Uber, arguing that TNCs decrease the incidence of drunk driving and increase accessibility for individuals with disabilities. MADD receives a $1 donation from every Uber ride on Memorial Day, Labor Day, and July 4.

Uber's outsider strategy to shape and mobilize public opinion was also multi-pronged. The company hired top public relations firms to improve its image and sent pro-Uber material to newspapers throughout California. As part of this public-oriented strategy, Uber also began to target legislators who supported or were on the fence about supporting the bill. In one of the clearest instances of such a strategy, Uber targeted the bill's sponsor, Assemblywoman Susan Bonilla. Uber launched a public campaign in the

[29] In California, all Republicans and 89 percent of Democrats voted for the legislation, while in Colorado, every Republican and Democrat in the General Assembly supported the legislation.

[30] It is notable in this regard that the first state-level regulation in California came from the Public Utilities Commission, a state level regulatory agency, as described in the California section.

district where Assemblywoman Bonilla planned to run for the state Senate in 2015, claiming that she was anti-technology and a stooge of the insurance industry.[31]

Finally, Uber used a hybrid insider-outsider strategy of direct lobbying and public outreach made possible by technology, as noted above. Apps not only enable the Uber platform, but also give the company the technology to mobilize through "clicktivism." Just before the vote on the California bill, Uber conducted a petition through its app, asking customers, by merely clicking, to sign and indicate that they did not want additional regulations because they would threaten Uber's operations in the state. Once these "signatures" were collected, the company contacted local news outlets to film the signatures being brought in boxes to Assemblywoman Bonilla's office.

Such a multi-faceted strategy was employed not only in California, but also in other states that subsequently attempted to regulate TNCs. The strong lobbying of Uber may account for why several bills at the state level have been modified from their original form to include fewer and less imposing requirements. In Kentucky, for example, the original proposed legislation included a provision that allowed cities to charge a $30 fee per TNC vehicle, but in the final iteration of the bill, the legislature prevented cities from implementing additional regulations above and beyond what the state had already enacted. In California, when Assemblywoman Bonilla drafted the initial insurance bill, she indicated that she was motivated in part by the fact that the CPUC's draft language on insurance regulation was not comprehensive enough. Yet, the version of the bill that eventually passed mandated less insurance regulation than even the CPUC's draft language.

Thus, while state legislatures have not been the natural candidate historically to regulate this kind of transportation, they have assumed an active role in regulating TNCs, especially with respect to insurance coverage. Across states, the politics of regulation has been non-partisan. Instead, elected officials acting *ex officio* as heads of relevant committees have led regulatory efforts, and in each state, relevant actors have attempted to influence these efforts through extensive lobbying. TNCs have been particularly active in their attempts to shape regulations. In some states, these attempts might be viewed as a success given that bills only stipulate requirements for insurance and have been close to the model legislation put forth by the TNCs and insurance companies. In other states, however, legislation has been more comprehensive, covering a variety of issues related to consumer protection, safety, labor, and other competition-related issues. This state-level variation in the number of regulations passed is not easily accounted for by traditional explanations involving partisanship, ideology, geography, or the urban makeup of states.

REGULATION BY COURTS

We now turn to another venue in which much Uber regulation or attempts at regulation have taken place: courts. We analyze litigation against and related to Uber across federal and state courts. With few exceptions, this litigation falls into the framework of our regulatory agenda. We focus on lawsuits alleging violations of worker protections,

[31] Interview.

consumer protections (including safety issues), and competition laws. Notably, litigation against Uber on matters of public goods and autonomous driving has been minimal.[32]

Courts, as a venue, have their own logic. Unlike in the legislative setting where lawmakers can break new ground by drafting and passing laws, the judiciary is a venue where individuals and groups can assert their rights (or in the case of surrogates, assert the rights of others) under prevailing legal frameworks. Rather than legislate new laws, judges are asked to address whether the facts of a new situation (like, in this case, the appearance of Uber) violate the existing statutes, regulations, and previous judicial decisions and thus cause injury to the plaintiff(s). Per this logic, in both federal and state courts, most consumer and worker-protection related lawsuits against Uber have been filed to enforce existing laws and regulations. We call this "enforcement litigation."

However, in many ways, what courts do is not strictly limited to enforcement; they also engage in rule-making, especially in response to new legislation to regulate TNCs. Because cities and states have chosen to regulate Uber (and similar companies) as a "new" category of technology and transportation (as TNCs, not taxis or ride-hailing companies), the judiciary has played an important role in the politics of Uber regulation. Litigants sue alleging new legislation violates their rights, and they thus ask courts to *reconsider* the regulatory decisions of city and state legislatures. Litigants' perceived failures in the legislative context have made the courts a second-best option for attempts at Uber regulation. In our analysis, we call these lawsuits "rule-making litigation."

As indicated in Table 6, cases regarding worker protections have almost exclusively referred to rights claims under long-standing laws and the issue of misclassification under those labor law. An exception is Uber's legal challenge to the Seattle ordinance, which created a collective bargaining mechanism for independent contractor drivers.[33] Competition regulations tend to take the form of rule-making litigation as taxi competitor plaintiffs bring litigation against Uber and regulatory bodies to get Uber to follow taxi rules. Finally, consumer safety and protection litigation is a combination of both enforcement and rule-making lawsuits. Many of the enforcement lawsuits are class actions alleging damages under existing consumer laws. But lawsuits filed by consumers related to safety, fare prices, and accessibility issues are all rule-making. They attempt to make courts regulate Uber where the legislative bodies have not.

Worker Protections

Cities and states, with the exception of Seattle, have not regulated labor or worker protection issues. However, workers' rights concerns have figured prominently on the agenda of labor and some drivers' groups and surveys, and online forums indicate the

[32] Nonetheless, these cases do exist and will likely grow in the coming years as Uber expands in different sectors. For example, in February 2017, Waymo (an autonomous car business connected to Google) sued Uber for allegedly stealing trade secrets after acquiring Otto and hiring its founder, who was previously a star engineer at Waymo.

[33] This case, filed in January 2017 in state court in Washington, is Rasier v. City of Seatle. The of the lawsuit is to block key provisions of the landmark law which gives the drivers the option to decide whether they want to bargain collectively. The complaint alleges that the city of Seattle's process in passing the law was procedurally flawed, and they argue that every driver—even those who work for only an hour or two a week—should have the opportunity to vote on union representation.

Table 6. Litigation of Regulatory Issues

	Enforcement Litigation	**Rule-making Litigation**
Worker Protections	X	
Consumer and Safety Protections	X	X
Competition		X

many grievances that drivers have against Uber.[34] This neglect may largely be because first, the politics of directly regulating business models lends itself to a contentious and difficult legislative process, and second, drivers have a serious collective action problem. As a result, most attempts to enforce worker protections have taken place in courts by surrogate actors who have brought these cases. For example, class action plaintiff's attorneys who have brought wage claim violations have their own financial and reputational interests.[35]

Here we focus on efforts to utilize state and federal courts to secure (or to prevent) worker protections. Nationally, efforts to secure protections have been channeled through lawsuits against Uber to establish the "employee" status of Uber drivers under both federal and state laws (e.g. tipping, minimum wage, retaliation, etc.). Such cases are approximately one third of the number of overall lawsuits filed against Uber since the company's founding in 2012.[36] By contrast, overall employment and labor-related lawsuits represent some two to three percent of cases against many large multi-national tech companies.[37] For fellow tech giants Amazon and Google—who also utilize independent contractor labor in some arenas— the numbers are closer to five and two percent respectively.

In the case of TNCs, class actions against Uber related to worker protections have been filed largely by plaintiffs' lawyers who conceived of the litigation and then sought worker plaintiffs (not vice versa).[38] Their surrogate status as actors who at once act "on behalf

[34] The two legislative initiatives (Seattle and the failed CA initiative) that did address worker protections were attempts to define a new legal category of employment relations with attendant rights.

[35] In this piece, we focus on the workers' rights of Uber drivers as they have been litigated in the courts. However, Uber drivers are not the only workers who have sued Uber. In December 2016, a class action—*McElrath v. Uber*—was filed in the Northern District of California on behalf of Uber's software engineers and other employees who were promised individual stock options as part of their compensation and did not receive them.

[36] At this point in our project, this is an estimate. It includes a preliminary review of cases that involve employee status and contract disputes.

[37] In the past decade, plaintiff-side attorneys coordinated an effort against FedEx, suing the company in jurisdictions across for misclassification of its single and multi-route drivers. Some of these cases were won, but most were settled. In all, plaintiffs' attorneys estimate that FedEx has spent over one billion dollars litigating misclassification cases.

[38] In the case of *O'Connor v. Uber*, for example, Doug O'Connor, a named plaintiff, told us that he was contacted by another Uber driver to see if he wanted to be a plaintiff in a class action being orchestrated by attorney Shannon Liss-Riordan. The driver's brother knew Ms. Liss-Riordan from law school. According to the rules of professional responsibility, attorneys are

of" drivers but also have their own interests has affected what types of rights have been litigated and how the litigation proceeds. Private plaintiffs' attorneys, who work on a contingency basis, have a financial incentive to bring cases that may yield significant damages or a large settlement sum. Almost all cases have settled without a resolution of the worker status issue. These surrogate attorneys have almost exclusively filed claims in state and federal court alleging wage claims. Thus, the only other rights that have been litigated outside of the individual administrative context—namely job security and collective action—have been brought by the government.

The initial enforcement litigation on worker protection issues have been understood in legal and regulatory spaces as "test" cases. These worker protections cases against Uber are an attempt to apply existing laws related to employment protections to the "new" case of Uber. Thus, as enforcement litigation, the worker protection cases have a potentially reverberating effect—enforcing traditional visions of social protection through employment to undermine Uber's independent contractor business model and to deter other companies from following a similar path.

Wages

Because they are most likely to yield large damages or settlement sums, a great advantage for plaintiffs' attorneys, class action wage cases make up the vast majority of worker protection litigation against Uber. The most important of the wage protection lawsuits against Uber is *O'Connor v. Uber*, a misclassification case filed in 2013, by a Boston-based plaintiffs' attorney, Shannon Liss-Riordan, in the Federal District of Northern California. This case became important because a large class of Uber drivers was certified by the court—a significant hurdle that other lawsuits were not able to overcome. If the plaintiffs won and drivers were legally determined to be "employees" for wage purposes, the size of the class action could force Uber to change its independent contractor business model. Despite her location in Boston and without license to practice law in California, Liss-Riordan filed the class action on behalf of Uber drivers in California because the state's judicial interpretation of the "employee" under the California Labor Code is one of the most expansive in the country. After the class was certified, Liss-Riordan promised to take the case to resolution. Labor unions, regulators, and other government actors watched *O'Connor* carefully, understanding it as a "test case" for the gig economy more largely. Despite her promise to get a ruling that definitively stated whether drivers were employees or independent contractors under California laws, Liss-Riordan attempted to settle the case after three years of litigation in April 2016. Drivers, other plaintiffs' attorneys, and some alt-labor groups were dissatisfied with the monetary and non-monetary terms of the proposed settlement, and the court rejected the proposed settlement calling it "unfair" to drivers. The case was then stymied by a 9th circuit ruling, which decertified a portion of the class, greatly diminishing its size. *O'Connor* has yet to be resolved.

Another important misclassification lawsuit filed against Uber is *NYTWA v. Uber* filed in New York in June 2016. This case was brought by the New York Taxi Workers Alliance (NYTWA), an alt-labor membership-based organization representing both taxi and TNC

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not supposed to solicit clients directly. In this case, Liss-Riordan circumvented the spirit of the rule by having a driver with whom she shared a personal connection find potential plaintiffs.

drivers.[39] The NYTWA and other class members allege minimum wage and overtime violations, unlawful equipment and tools deductions, and unlawful tax and surcharge deductions. All of these claims are rooted in a challenge to the status of Uber drivers as independent contractors. Representatives of the NYTWA say that they will litigate the case to resolution. Notably, the NYTWA has never sued taxi companies to establish employee rights for taxi workers. The group maintains that in the absence of city and state regulations that limit the number of TNC vehicles and control fares, employee status is the only way to lift and stabilize driver earnings.

In addition to the dozens of wage class actions, some Uber drivers in states across the country have filed cases alleging their individual misclassification for purposes of unemployment insurance and wages. The precise number of these filings is not known since the cases remain unpublished unless a decision is made on appeal. We speculate that the numbers are low; few drivers are likely aware of potential "employee" rights or the process by which they could obtain them. We also presume that even fewer are likely to mobilize those rights because they are repeatedly told by Uber representatives that they are independent contractors.[40] The known drivers who filed for employee rights were either (a) serial litigants or (b) as in the class action cases, assisted by a workers' association and/or an attorney.

Job Security & Collective Action

In stark contrast to the wage claims—which are mostly brought by surrogates who have something financial to gain themselves through the available remedies (monetary settlement or attorneys fees from damages)—the National Labor Relations Board (NLRB), in an unprecedented investigation, attempted to address Uber's classification of its drivers. Like other actions taken by the NLRB during the Obama administration, this investigation may be an attempt to broaden the scope of the NLRB's coverage. In investigating whether Uber has violated the National Labor Relations Act (NLRA) in calling its drivers "independent contractors," the NLRB might seek to bring Uber drivers under NLRA coverage.

In February 2016, the NLRB Region 20 (San Francisco), filed a suit against Uber in federal court for failing to comply with the NLRB's investigation of the company's alleged violations of the NLRA. The NLRB Region 20 is conducting a coordinated investigation on behalf of NLRB regions across the country on whether or not Uber is an employer under the NLRA. The implication of this investigation and its findings are quite significant for Uber, perhaps more significant than any class action against the company.

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[39] The NYTWA is a member of the AFL-CIO but is made up of all independent contractor workers who do not have collective bargaining contracts with the businesses for which they work.

[40] During every interaction with drivers, Uber representatives emphasize that drivers are "partners," independent contractors and not employees. For example, one worker, a contractor for Uber whose job it is to call Uber drivers for various purposes, told us that she is supposed to correct drivers when they say, "I drive for Uber." Uber has given her a script to follow in which she tells drivers that they are "Uber partners." If a driver says, "I am proud to work for Uber," she is supposed to correct them and answer, "You don't drive for Uber. You are an independent contractor." The template that she used when speaking to drivers included the following statements to push driver acceptance of their independent contractor status, "Uber is not paying you, Uber is a platform. Uber is an app. Uber is not a company. Uber connects drivers and riders. You are not drivers for us, we are just an app, we connect two things to one. We don't hire you, we just say if you are eligible to drive on this platform."

If successful, the NLRB's attempt to enforce collective bargaining rules under the NLRA will grant Uber drivers the right to unionize under existing federal laws.

Protection from Discrimination at Work

In our analysis of lawsuits against Uber filed in California, Texas, and New York, we found *almost* no efforts to enforce workplace anti-discrimination laws through litigation, despite the fact that some drivers have alleged discrimination in the form of customer ratings: a system of evaluation adopted by Uber. Private attorneys are not motivated to bring these types of cases in the misclassification context because such litigation involves not only proving employment status but also discrimination. This hurdle is particularly challenging in the Uber context because discrimination against drivers is more likely to happen through customer ratings than through and by the company itself, although Uber provides the rating system and mechanism on its app.[41] Nevertheless, we found two cases filed against Uber that allege discrimination. One, filed by a driver without an attorney, was thrown out, but the other has been filed by the *O'Connor* case attorney, Shannon Liss-Riordan. Rather than file this case in federal district court, however, Liss-Riordan has filed the case with the EEOC and charged them with its investigation and resolution.

Consumer Protection and Safety Issues

Litigation against Uber alleging the violation of consumer rights is much more diverse across state and federal courts than the worker protections and competition litigation. This litigation does not center on a single threshold question (i.e. employment status or unfair competitive practices). Consumer lawsuits fall into both categories of enforcement litigation and rule-making litigation (which includes safety, price-fixing, and accessibility issues). All enforcement and rule-making litigation is brought by surrogates, as consumers have a collective action problem.[42] While plaintiffs' lawyers have initiated many of the lawsuits in both categories, some of the rule-making litigation has been brought or supported by public interest actors (either a government entity or nonprofit organizations)..

In the enforcement litigation, consumer lawsuits focus on protecting consumer data and protecting consumers from certain charges. This litigation attempts to compel the monetary and injunctive remedies available for violations under various consumer rights acts, including, most commonly, the Telephone Consumer Protection Act (sending unwanted text messages or calls) and the Electronic Fund Transfer Act (funds deducted without permission from consumer). In California, Texas, and New York alone, almost a dozen TCPA lawsuits have been filed. The panoply of other consumer class actions

[41] The ratings system is a common source of driver complaints.

[42] In the case of Uber, the surrogates are sometimes themselves Uber consumers, but they become surrogates in the class action context. They and the attorneys who represent them make key litigation decisions on behalf of thousands (in some cases, millions) of other consumers.

range from allegations of unlawful business practices for consumer cancellation fees[43] to allegations of the illegal use of "robocalls" for consumer lobbying.[44]

In contrast to the regulation of consumer issues in the legislative arena, these lawsuits are—for the most part—attempts to get Uber to comply with minutiae of existing consumer protection laws and regulations. Most are class actions litigated by plaintiffs' attorneys who will profit from attorneys' fees (either by seeing the case to its resolution or by settling) and reputational enrichment. Individual consumer plaintiffs have very little to gain financially. For example, in the robocall lawsuit filed on behalf of consumers in New York, each consumer by statute gets $50 in damages. Under the TCPA, each consumer gets $500 per violation of the Act (a number that pales in comparison to the costs of litigation).[45] Plaintiffs' attorneys, by contrast, will get a large percentage (around 15-30%) of the settlement or other remedy on behalf of the entire class (frequently millions of dollars).

In the safety, price-fixing, and accessibility arenas, the consumer litigation against Uber—both by individual attorneys and government representatives—is better characterized as "rule-making" lawsuits. They fall in line with the pattern of cases that attempt to get the courts to regulate Uber where legislatures have failed to regulate. Two class action lawsuits filed in California, for example, attacked Uber's "safe ride" fee and their advertisement stating that it had the "gold standard" of background checks. These class actions were consolidated and settled for $28.5 million. The San Francisco and Los Angeles district attorney offices in a highly unusual move also sued Uber over the same language. Uber also settled those lawsuits for $25 million. All of these lawsuits were filed after the state of California decided not to regulate Uber with the same high safety regulations (including FBI background checks) that the regulatory body had mandated in the taxi sector. None were successful in forcing Uber to change its practices with regard to background checks.[46]

Another group of "rule-making litigation" consumer cases against Uber are those alleging price-fixing. Consumer price-fixing cases against Uber (of which there are two) include one case filed by a consumer (an environmental conservation scientist) in New York city in mid-2016. This case argues that if Uber drivers are independent contractors—as Uber claims—then the company is colluding with drivers and engaging in price-fixing. This case has been stymied by arguments by Uber that as per the consumer arbitration agreement, the consumer must take the case to arbitration. In December 2016, 51 law professors and a public interest group, Public Justice, filed an amicus brief with the US Court of Appeals for the Second Circuit arguing that Uber cannot force this case into arbitration. While this litigation was intended to force Uber to fundamentally alter its

[43] Metter v. Uber (filed November 2016 in the Northern District of California).

[44] Bank v. Uber (filed in August 2015 in New York state court).

[45] For an individual to file a claim under the TCPA, he or she would likely need to engage an attorney and pay court fees (which may be higher than the available damages). Few attorneys would be willing to take a case where the damages are so small.

[46] In addition to these cases directly regarding background checks, a number of consumer safety-related lawsuits[46] against Uber have been filed by victims who allege that Uber drivers injured them while on the job. Depending on state laws, these cases often fall on the threshold question of whether Uber is liable for the actions of its drivers. And this legal question—as in the worker protection cases—is determined by whether the driver is an independent contractor.

business practices, the arbitration issue may mean that case has an impact on consumer rights more broadly.

Finally, the last set of "rule-making" litigation cases against Uber relates to consumer accessibility. These cases have been brought by disability rights advocates who claim that Uber does not ensure that its rides are ADA complaint. One of these lawsuits was brought by the National Federation of the Blind which sued the company for discriminating against passengers with service animals. Part of the settlement in this case did alter Uber's practices; Uber agreed to require drivers to take service animals and to suspend drivers who refuse. Another, brought by Access Living of Metropolitan Chicago and three disabled people associated with the group alleges that the company does not provide enough wheelchair accessible vehicles. These are the only rule-making cases that are likely to have any immediate regulatory impact.

Competition

Competition litigation against Uber has been filed by competitive taxi companies, acting on their own, without surrogate representatives. Competition cases fit entirely within the category of "rule-making" litigation in which third parties (taxis) have attempted to intervene in the ways that cities and states have regulated Uber.

Dozens of competition cases against Uber have been filed by taxi companies across cities and states nationally. These companies claim that they have had their profits decimated by Uber, but, as we have seen, they have had only very limited success in most city and state governments. Against this background, they filed suit in court, alleging among other things, equal protection arguments.

Cases against Uber and the Uber's regulators have thus far failed to produce the kinds of rules desired by the plaintiffs. Federal courts have concluded that Uber can be treated differently from taxis from a legal and regulatory standpoint. Most prominently, in a case brought by the Illinois Transportation Trade Association (a taxi interest group) the 7th Circuit determined that Uber drivers do not need special licenses for their services and are not required to have regulated fares—as taxi are. In oral arguments, the taxi attorney argued, "Uber is not a new service. It's a taxi," and stated that they should get "equal treatment." Judge Posner, declared that argument "absurd" and suggested that the taxi attorney work to liberalize the taxi industry instead of regulating Uber.

Although these cases have largely failed to create desired rules, taxi companies persist in filing new cases, utilizing new and novel legal arguments. Despite an earlier failure of California taxi companies to use the courts to get Uber regulated, DeSoto Cab company filed a lawsuit in November 2016 alleging that in addition to their anti-competitive practices, Uber interfered with the taxi company's prospective economic relations by luring taxi drivers to Uber with false information about how much they could make.

CONCLUSION

We have explored the politics of Uber regulation as a case of regulation of labor brokerage platforms in the burgeoning platform economy. The regulatory agenda emerges out of two particular features of Uber. First, Uber enters an existing ride-hailing

sector that is already highly regulated. As a result, the existing providers, primarily taxis, become highly interested actors who have stakes in both market entry conditions and equal regulatory requirements. Hence on the regulatory agenda are consumer protection, safety, and other competition. Second, compared to most other labor brokerage platforms, Uber exercises a high degree of control over the worker, i.e., the driver. Thus, labor issues have also been salient on the regulatory agenda. In addition, the public has an interest in public goods issues that emerge. These issues have been regulated to very different degrees and in different venues. What has emerged is substantial, though varying, regulation of competition, consumer, and safety issues, primarily by cities and state governments. By contrast, very little regulation has occurred concerning labor and public goods. Labor issues have been taken up, for the most part, not by city and state governments, but in the courts.

This pattern is related to the array of actors and the nature of interests that are involved in the different categories of the regulatory agenda. The actors can be thought of as either concentrated or dispersed, traits that affect their capacity and strategy. Concentrated actors are unitary or unified actors, who are relatively few in number and generally able to come together and coordinate activities. They are considered "elite" actors, typically firms with a range of organizational, informational, personnel, and material resources. Dispersed actors are many in number, are often physically separate or atomized, have fewer of these resources and, more universally and notably, they have collective action problems, being unable to come together and coordinate activity. Similarly, actors have interests, which can be characterized as either salient or diffuse. TNC regulation can either be the salient, priority issue for actors, or it can simply be one of many issues with which actors are concerned,

Table 7 situates the actors who have been part of the politics of Uber regulation in terms of this typology. Uber and taxi companies are concentrated actors with salient interests. They have been the dominant players in the politics of regulation across all categories. They have acted primarily in cities and states, and when they have failed in those venues, in courts. Insurance companies are also a concentrated actor, but their interests are more diffuse from the perspective of TNC regulation: first, TNC regulation is only one of many of their interests, and, second, their concern with TNC regulation is limited to only one issue—insurance requirements. For Uber and taxi companies, on the other hand, TNC regulation is more salient, as they have a more comprehensive interest all TNC regulations, including a variety of labor, safety, and competition regulations.

The politics of regulation has been dominated by concentrated actors, who have brought resources to bear in the arenas of city and state government. In general, within the government those officials responsible for taxi or transportation have taken the lead—either city regulatory agencies or state legislative committee heads and members. We noted some variation across both cities and states. Cities where taxi companies are historically strong and regulated, which are those where policy-making responsibility has been delegated to regulatory agencies, have generally been high regulators in the "competition" categories of (equal) consumer protection, (equal) safety, and other competition. While actions by regulatory agencies in cities have largely pre-empted and precluded action by elected city officials, action at the state level tends to originate with elected legislators acting *ex officio* as heads of relevant committees. After legislation has been proposed, it tends to pass with broad, bipartisan support. State-level regulatory bodies have also gotten involved in regulation, most notably the CPUC in California, and

Table 7. The Politics of Uber Regulation: Actors, Issues, and Primary Venues

		Actors	
		Concentrated	**Dispersed**
Interests	**Salient**	*Principal Actors:* Uber, Taxi companies, Medallion holders *Issues:* Consumer protection, safety, other competition *Primary Venues:* State legislatures, City councils[1]	*Principal Actors:* Uber drivers, taxi drivers *Issues:* Labor (Uber drivers), competition (taxi drivers) *Primary Venues:* Courts[2]
	Diffuse	*Principal Actors:* Insurance industry *Issues:* Insurance *Primary Venues:* State legislatures, City councils	*Principal Actors:* Riders, "the public" *Issues:* Consumer protection, safety, public goods *Primary Venues:* State legislatures, City councils, Regulatory agencies, Courts

[1] As a last resort, taxi companies have also addressed their concerns in courts.
[2] Taxi drivers and their surrogates have also lobbied in a few in state legislators and city councils.

the actions of these bodies tend to complement rather than replace actions taken by elected officials.

In these city and state arenas, Uber has both instrumental power and the structural power of capital in fighting against regulation. Like the other concentrated actors, it uses instrumental power in insider strategies of lobbying, which it does very extensively.

More unusually, Uber also engages in outsider strategies of undertaking PR campaigns, sponsoring referenda, and organizing petitions. Its structural power derives from its perceived economic benefits. These include the "jobs" it provides as well as the reputation of the city or state as a tech-friendly environment, which government decision makers see as a way to attract investment and a road to future growth.

The dispersed actors are workers, both Uber and taxi drivers, consumers, and, more broadly, citizens. Because of their collective action problems, they have tended to rely not on their own actions or those of membership groups, but on surrogates and officials to promote these policies. Customers have diffuse interests that include consumer

protection and safety; yet in city and state arenas these issues have been taken up primarily by taxi actors not as consumer issues but rather as competitive issues to level the playing field. Larger public goods issues, which are notoriously diffuse and prone to free-riding, have generally been neglected. Taxi drivers, who have a salient interest in TNC regulation, are partly "represented" by taxi companies in all competition categories. The National Taxi Workers Alliance—an alt labor group affiliated with the AFL-CIO with organizations in New York, Philadelphia, and San Francisco—has also represented the interests of taxi workers in competition and worker protection arenas.

Uber drivers are also dependent on surrogates. None of the concentrated actors promote labor regulation that would expand drivers' rights and benefits, although some of the other categories of regulation also affect drivers. Often, however, these regulations, which may in some sense protect drivers, come in a form that is burdensome, as drivers lack the collective action capacity to significantly lobby local officials—unless mobilized by TNCs. In the case of insurance, for instance, regulations have been decided through elite bargaining without driver input. The result has been the creation of hybrid insurance plans, which place demands on drivers to learn about and acquire what they regard as costly commercial insurance for some phases of their ride-hailing work. Other examples of burdensome regulations are those that distribute to drivers the cost of commercial licenses, background checks, or permits.

Beyond these regulations, which do affect drivers, are those that are explicitly labor issues. Although most drivers work for Uber only part time,[47] driver online forums are filled with complaints and grievances, indicating that worker issues are a major and salient demand for those who rely on Uber for a livelihood, even if they do not do so exclusively. Uber driving is part of a livelihood package or repertoire that has increasingly come to characterize broader patterns of work. On this central issue of labor regulation, Uber drivers have often relied on surrogates to present claims on their behalf in a different venue: in courts, where their interests are pursued as a legal matter rather than a legislative one, as well as in post-litigation negotiations with Uber. The issue is not to look for new solutions, such as the suggestion of a new category of "dependent contractor" or "independent worker" with rights beyond those granted to independent contractors, but to determine whether the current case is an instance of an older category, most notably "employee," the category of work that is protected by labor and employee law.

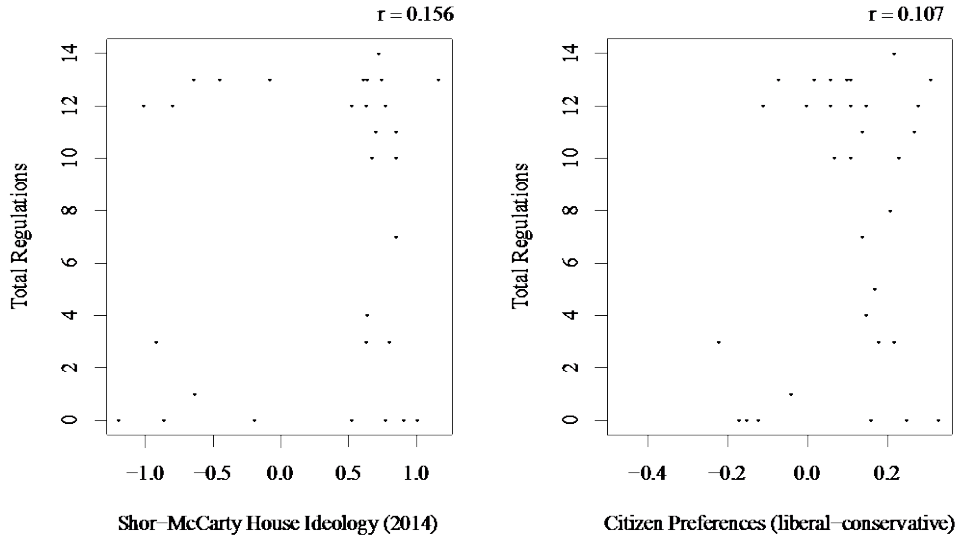
The main surrogates on labor issues are plaintiff's attorneys, unions, and alt-labor groups/NGOs. Plaintiff's attorneys have been particularly active in bringing these cases. Unions and alt-labor groups, when they have been involved, have generally not tried to organize Uber drivers along traditional union lines, as organizing them prior to a determination of employee status would expose a union to anti-trust liability. Instead, unions have pursued two alternate strategies. The first is fighting for employee status in courts by filing class action cases and also by attempting to shape the strategy of existing lawsuits. The second is fighting for market-based benefits and workplace voice, a "second-best" strategy reflecting fears of anti-trust liability. Thus surrogates have advocated on behalf of drivers, who as atomized workers face great collective action problems. However, their interpretation and representation of drivers' interests are colored by their own "outsider" perspective and their own particular interests.

[47] In 2014, 81 percent of Uber drivers worked fewer than 35 hours a week; 51 percent worked fewer than 16 hours a week (Hall and Krueger 2015, p. 20).

Looking across our venues, we find that concentrated actors primarily act in cities and states where they can bring their resources to bear in a more overtly "political" arena, whereas the dispersed actors are more reliant on surrogates acting in courts. Cities and states have regulated through a political game where concentrated actors have presented their claims to policy-making bodies. The initiative in these bodies is taken by *ex officio* actors, that is, members of regulatory commissions or chairs and members of relevant committees. Outcomes in these arenas, which have been notably bipartisan, have reflected the interests of concentrated actors, like TNCs and taxi companies, with more action being taken on consumer protection, safety, and other competitive issues. Labor and public goods have been neglected in these venues, as the relevant actors have collective action problems. The lone exception is Seattle, where an elected city official with previous experience lobbying for labor rights, worked in concert with a union, acting as a surrogate for Uber drivers, to give drivers the right to collective bargain. In a few cases, drivers and consumers have been mobilized by Uber to protest certain TNC regulations, like fingerprinting and vehicle caps, constructing common cause by threatening to leave the local market thereby withdrawing work opportunities and service. In the process, such mobilization also creates common opposition to the consumer protection and safety regulations at issue. In a very few cities, drivers groups or union surrogates have also played a role in regulatory politics. More often, dispersed actors, particularly drivers and sometimes consumers, act through surrogates in courts, where the primary surrogates are plaintiff's attorneys, unions, alt-labor groups, and public interest organizations. Here too, surrogates have their own interests, which may not always align with those on whose behalf they purportedly act, especially drivers.

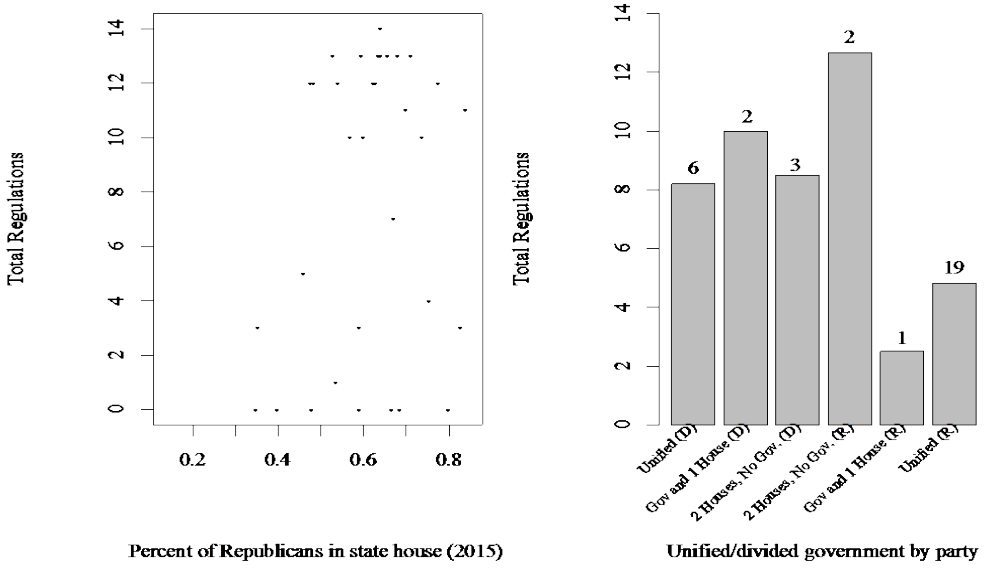
In general, then, issues important to concentrated actors have been brought in city and state venues. These include consumer protections and safety issues, largely because they are also seen as competition issues. Dispersed actors have not been effective in these venues. Rather, regulations that are most important to them have been addressed in primarily courts and have been brought by surrogates. Some consumer protection issues have been brought in court and have achieved some success—particularly with regard to accessibility issues. Worker protections have been treated in a way that reflects the interests of the surrogates who have brought these cases and have been stymied through settlements and litigation losses. The primary issue of worker status and rights, when brought in this venue, concerns whether drivers are employees or independent contractors and to date remains unresolved.

Appendix



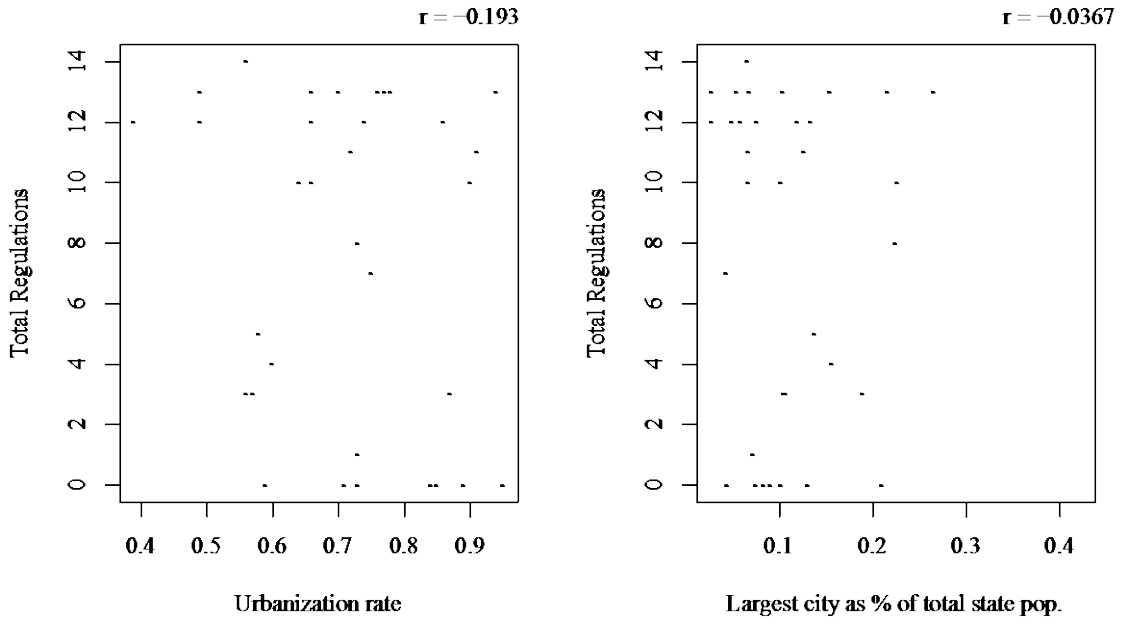
Appendix 1. Ideology and State-Level Regulation

Source: Schor-McCarty (2014)



Appendix 2. Partisanship and State-Level Regulation[48]

[48] For bar graph, the number of cases is located above bar.



Appendix 3. Urban Character and State-Level Regulation