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The Sharing Economy as an Urban Phenomenon

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INTRODUCTION

Need a cab? Chances are you'll click your Uber app rather than hail or call a dispatcher. Traveling? Airbnb has hundreds of listings across neighborhoods in almost any destination city. That new Ikea shelving system you bought just too hard to put together? TaskRabbit can have someone at your door almost instantly, Allen wrench cheerfully in hand. The "sharing economy" is radically transforming transportation, accommodations, personal services, and an array of other sectors.¹ And this new economic model is growing by leaps and bounds.²

Legal scholars have begun to examine many aspects of this rapidly emerging phenomenon,³ but an intriguing dynamic remains underappreciated in the

1. The term "sharing economy" is contested, with some commentators questioning whether there is, in fact, any sharing to this new economy and the normative valence of invoking its communal implications. See Orly Lobel, *The Law of the Platform*, MINN. L. REV. (forthcoming 2016) (manuscript at 4), <http://ssrn.com/abstract=2742380>. Alternative descriptions include "peer-to-peer," "on-demand," "gig," and other variations, while Orly Lobel has argued for the term "platform economy." *Id.* The European Commission has adopted the term "collaborative economy," although questions about its dimensions remain. EUR. UNION, COMM. OF THE REGIONS, *THE LOCAL AND REGIONAL DIMENSION OF THE SHARING ECONOMY* 3-4 (Dec. 3-4, 2015). Acknowledging these crosscurrents, we use the term "sharing economy," as it is still the most common term in the United States.
2. Based on private equity investments, market valuation for Uber—founded in 2009—is currently estimated to be as high as \$62.5 billion. Mike Isaac & Leslie Picker, *Uber Valuation Put at \$62.5 Billion After a New Investment Round*, N.Y. TIMES: DEALBOOK (Dec. 3, 2015), <http://www.nytimes.com/2015/12/04/business/dealbook/uber-nears-investment-at-a-62-5-billion-valuation.html>. Similarly, Airbnb, founded in 2008, appears to be valued currently at about \$20 billion. Serena Saitto, *Airbnb Said to Be Raising Funding at \$20 Billion Valuation*, BLOOMBERG BUS. (Feb. 28, 2015), <http://www.bloomberg.com/news/articles/2015-03-01/airbnb-said-to-be-raising-funding-at-20-billion-valuation>.
3. See, e.g., Molly Cohen & Arun Sundararajan, *Self-Regulation and Innovation in the Peer-to-Peer Sharing Economy*, 82 U. CHI. L. REV. DIALOGUE 116 (2015); Rashmi Dyal-Chand, *Regulating Sharing: The Sharing Economy as an Alternative Capitalist System*, 90 TUL. L. REV. 241 (2015); Lobel, *supra* note 1; Stephen R. Miller, *First*

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literature. Unlike for earlier generations of disruptive technology, the regulatory response to these new entrants has primarily been at the municipal level.⁴ Where AT&T, Microsoft, Google, Amazon and other earlier waves of technological innovation primarily faced federal (and international) regulatory scrutiny,⁵ sharing enterprises are being shaped by zoning codes, hotel licensing regimes, taxi medallion requirements, insurance mandates, and similar distinctly local legal issues.⁶

Why is the regulatory landscape of this generation of technology so different? What distinguishes the current wave of innovation is that most of the services enabled by the platforms and networks that make up the sharing economy

Principles for Regulating the Sharing Economy, 53 HARV. J. ON LEGIS. 147 (2016); Daniel E. Rauch & David Schleicher, *Like Uber, but for Local Government Law: The Future of Local Regulation of the Sharing Economy*, 76 OHIO ST. L.J. 901 (2015); see also Jamila Jefferson-Jones, *Airbnb and the Housing Segment of the Modern "Sharing Economy": Are Short-Term Rental Restrictions an Unconstitutional Taking?*, 42 HASTINGS CON. L.Q. 557 (2016).

4. See David McCabe, *FTC: No Plans for "Big Enforcement Push" Against Uber, On-Demand Economy Firms*, HILL (Jun. 9, 2015), <http://thehill.com/policy/technology/244393-regulator-to-on-demand-economy-companies-were-not-adversaries>. ("Most [sharing economy] companies have fought almost all of their regulatory battles at the state and local level, where businesses like hotels and taxi services are governed.").
5. See, e.g., *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000), *aff'd in part, rev'd in part*, 253 F.3d 34 (D.C. Cir. 2001); *United States v. AT&T Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).
6. See *infra* Part II. The sharing economy has not entirely avoided state and federal regulation, see Rauch & Schleicher, *supra* note 3, at 1 n.4; Joshua Brustein, *New York's Attorney General: Reluctant Scourge of the Sharing Economy*, BLOOMBERG BUS. (July 16, 2014), <http://www.bloomberg.com/news/articles/2014-07-16/eric-schneiderman-reluctant-scourge-of-the-sharing-economy> (detailing regulatory efforts by the New York Attorney General), and some of these fights have been significant, particularly around labor and employment issues. See, e.g., *Berwick v. Uber Technologies Inc.*, No. 11-46739 EK (Cal. Labor Comm'r, June 4, 2015) (holding that an Uber driver was an employee under the state Labor Code). Indeed, Sarah Light has argued that in the ride sharing sector, companies are increasingly looking to the states to preempt local regulation, which arguably both confirms the current primary locus of regulation and shows that urban governance issues are not limited to local governments. See Sarah E. Light, *Precautionary Federalism and the Sharing Economy*, 66 EMORY L.J. (forthcoming 2016) (manuscript at 46-47), <http://ssrn.com/abstract=2760985>. Moreover, federal taxation has the potential to emerge as another flashpoint across the sharing economy. See Shu-Yi Oei & Diane M. Ring, *Can Sharing Be Taxed?*, 93 WASH. U. L. REV. (forthcoming 2016); Jordan M. Barry & Paul L. Caron, *Tax Regulation, Transportation Innovation, and the Sharing Economy*, 82 U. CHI. L. REV. DIALOGUE 69 (2015).

fundamentally rely for their value proposition on distinctly urban conditions.⁷ Dense urban geography creates inefficiencies and challenges but also opportunities, and it is the very scale, proximity, amenities, and specialization that mark city life that enable sharing economy firms to flourish.⁸ Unlike earlier generations of information or technology-based enterprises, sharing enterprises rely on a critical mass of providers and consumers who are sufficiently close to each other or to other amenities to make their platforms work, often finding value in the very fact of the beneficial spillovers from proximity.⁹ These conditions foster the ability to rent spare bedrooms, take on additional riders on a commute, or offer spot labor and niche services.¹⁰

Arun Sundararajan has argued that this emerging sector enables disaggregation of assets in space,¹¹ which it certainly does as it frees surplus goods and

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7. The inevitable question arises in any attempt to define “urban” and distinguish urban from the merely local in legal scholarship. As to urbanism, we mean a particular set of physical conditions, such as population size and population density, as well as certain social phenomena, such as anonymity, that tend to arise in large-scale, relatively crowded communities. By focusing on urban space and social conditions, we do not limit ourselves to larger cities, although those are the places where many of the earliest, most intense conflicts over the sharing economy have emerged. Indeed, the line between “city” and “suburb” has long been blurred. See Richard Briffault, *Beyond City and Suburb: Thinking Regionally*, 116 YALE L.J. POCKET PART 203 (2006), <http://yalelawjournal.org/forum/beyond-city-and-suburb-thinking-regionally>. The physical, economic, and social conditions we highlight pertain to many smaller suburban communities as well as to big cities.
 8. See *infra* Part I.A.1.
 9. Agglomeration has become a central explanatory feature of urban economics, see generally EDWARD GLAESER, TRIUMPH OF THE CITY: HOW OUR GREATEST INVENTION MAKES US RICHER, SMARTER, GREENER, HEALTHIER, AND HAPPIER (2011), and the gains from proximity and specialization this literature emphasizes do explain much of the texture of the sharing economy, see *infra* Part I; Rauch & Schleicher, *supra* note 3. But there are broader urban conditions—spatial, economic, and social—beyond agglomeration that are also important to recognize in understanding this emerging phenomenon.
 10. The sharing economy largely offers what might retronymically be called “real-world” goods and services, which is to say, space, transportation, local (often in-person) labor, and the like. This distinguishes these platforms from earlier generations of technology companies that primarily provided goods and information services with relatively little connection to place. Broadband, for example, relies on network effects spread out across consumers and e-commerce is indifferent (except perhaps as to logistics) to concentrations of purchasers or proximity to producers. Cf. Lobel, *supra* note 1, at 10 (tracing history of digital companies from information sharing, through online marketplaces Web 2.0 to Web 3.0—the platform economy—through which technology facilitates offline exchanges).
 11. Arun Sundararajan, *From Zipcar to the Sharing Economy*, HARV. BUS. REV. (Jan. 3, 2013), <https://hbr.org/2013/01/from-zipcar-to-the-sharing-eco>.

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human capital. But the sharing economy is actually thriving precisely for the opposite reason, because it recombines assets and people in a decidedly grounded, place-based way.¹² Sharing economy firms have found success by providing innovative solutions to the challenges of life in crowded urban areas.¹³ Even the reputation scoring and other trust mechanisms that are so central to sharing economy platforms create value by responding to particular urban conditions of dense, mass anonymity.¹⁴

At the same time, the rise of companies like Uber and Airbnb represents a reaction to urban regulatory regimes that exacerbate the frictions of urban life.¹⁵ These regulatory conditions can limit or skew the supply of urban amenities, giving value to the excess capacity that sharing economy firms exploit to fill demand for services like ride sharing and alternative accommodations.¹⁶ As a result—intentionally or not—many sharing economy companies have flourished through a kind of regulatory arbitrage that leverages local regulatory challenges.¹⁷

As sharing enterprises and local governments confront each other, each side is iterating and adapting amid a rapidly changing landscape of innovation.¹⁸ This distributed clash is not just shaping the sharing economy and local regulatory responses to it. It is also spurring broader changes to the urban environment. We are beginning to see new approaches, for example, to real estate development, land use, and transportation, as the private sector reacts to new

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12. Urban scholars have long emphasized cities as engines of specialization and scale, and the particular value of intermediaries in facilitating value creation out of that urban fabric. See LEWIS MUMFORD, *THE CITY IN HISTORY* 48, 102-07, 410-14 (1961); see also JANE JACOBS, *THE ECONOMY OF CITIES* (1969). In this regard, the sharing economy is merely an accelerant to a long-standing aspect of urban economic systems.
 13. See *infra* Part I.A.
 14. See *infra* Part I.B.
 15. See *infra* Part II.A.
 16. See *infra* notes 133-140 and accompanying text. To be clear, this is not to disparage the important civil rights, consumer, environmental, and other protections that many local regulatory regimes provide but rather to highlight that those benefits can raise barriers to entry that some sharing economy companies have leveraged.
 17. See *infra* Part II.B. Jordan Barry and Paul Caron have explored the general tendency of sharing-economy companies to engage in regulatory arbitrage, see Barry & Caron, *supra* note 6, but their analysis does not explain the nature of the particular (mostly local) regulatory regimes that generate the opportunity for arbitrage.
 18. For a detailed survey of city policy responses, see LAUREN HIRSHON ET AL., *NAT'L LEAGUE OF CITIES, CITIES, THE SHARING ECONOMY AND WHAT'S NEXT* (2015).

configurations of use and ownership.¹⁹ These changes are likely to accelerate as the sharing economy transforms how individuals move across space within a city and opens new neighborhoods to development. The sharing economy's capacity to facilitate the entry of new businesses and enable innovation can likewise alter urban economies at neighborhood- and city-wide levels. And these platforms can fundamentally reconfigure how people interact with each other in cities. All of this will likely have mixed distributional consequences, as micro-entrepreneurship grows, but incumbents are increasingly challenged.

Moving from geography and social dynamics to governance, the sharing economy is having spillover effects there. Even at this early stage, the political economy of the sharing economy is nudging local governments to be more transparent about the goals of public intervention and to justify empirically the link between local regulatory regimes and their intended outcomes.²⁰ This has the potential to improve urban regulation, given that localities—paradigmatically engines of local preference aggregation—can draw on the sharing economy to improve their sources of information. Local governments have traditionally acted through information that is often place-based, such as property tax records, police reports, block-by-block development patterns, and the like, and local governments in recent years have embraced data as they seek to govern more efficiently.²¹ The sharing economy represents a significant new resource that can inform not only how cities respond to such enterprises but also how they govern across the spectrum of urban challenges. Given the intersection between the data generated by the sharing economy and the local spaces through which goods and services move, local governments are well situated to tailor regulation in a holistic but still fine-grained manner.²²

An urban lens on the sharing economy, finally, sheds significant new light on the emerging scholarly discourse in this area. While some accounts of the sharing economy link its growth to increased urbanization,²³ the literature on

19. Thus, for example, micro-unit developments with no parking make more sense in urban environments where car sharing, distributed dining, and other traditional aspects of the bundle of residential ownership can be spread. *See infra* Part III.A.

20. *See infra* Part IV.A.

21. *See infra* note 279 and accompanying text.

22. *See infra* Part IV.B.

23. *See, e.g.,* Duncan McLaren & Julian Agyeman, *How to Build Smart, Sharing Cities*, BOS. GLOBE (Jan. 15, 2016), <https://www.bostonglobe.com/opinion/2016/01/15/the-difference-between-sharing-economy-and-true-community/j72LxsRs32cLanvrGBiw6O/story.html> (“[C]ities are where sharing should be easiest: densely populated and highly networked places where demographic, economic, and cultural forces are bringing people together in ever-growing numbers.”). Some commentators have also noted that peer-to-peer sharing platforms generally start off within a particular urban area before expanding geographically. *See All Eyes on the Sharing Economy*, ECONOMIST (Mar. 9, 2013), <http://www.economist.com/news/technology-quarterly/21572914-collaborative-consumption-technology-makes-it-easier-people-rent-items>.

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the sharing economy has largely failed to appreciate how deeply the sharing economy is shaped by urban conditions.²⁴ Daniel Rauch and David Schleicher have appropriately emphasized how sharing economy firms improve the matching of buyers and sellers in deep urban markets,²⁵ but this economy partakes of a broader range of agglomeration benefits and implicates other important urban phenomena.²⁶ Moreover, while their predictions about where the regulation of the sharing economy is heading offer important insights,²⁷ it is important to understand not only the likely regulatory strategies in which local governments will engage but also how the sharing economy will transform urban governance and the shape of cities beyond the sector in which primary clashes over barriers to entry and traditional regulatory concerns have emerged.²⁸

This Article proceeds in four parts. Part I draws on urban geography, economics, and sociology to explain how the sharing economy relies on density, proximity, and specialization for much of its value proposition. Part II turns to

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24. Daniel Rauch and David Schleicher have done the most to date to highlight the urban dimensions of the sharing economy, *see* Rauch & Schleicher, *supra* note 3, although our account differs in its conclusions. Other scholars have begun to examine the emerging local regulatory landscape. *See, e.g.*, Josh Krauss, Note, *The Sharing Economy: How State and Local Governments Are Failing and Why We Need Congress To Get Involved*, 44 SW. L. REV. 365 (2014); *see also* Andrew T. Bond, *An App for That: Local Governments and the Rise of the Sharing Economy*, 90 NOTRE DAME L. REV. ONLINE 77 (2015).
 25. Rauch & Schleicher, *supra* note 3, at 34-35.
 26. *See infra* Part I.
 27. Rauch and Schleicher argue that local governments will likely follow some combination of policies that involve subsidies, localized redistribution, and drawing on sharing enterprises for government services. *See* Rauch & Schleicher, *supra* note 3, at 38-60.
 28. Other scholarly attempts to grapple with the regulation of the sharing economy have simply assumed the relevant underlying geography. For example, Stephen Miller in his proposed “first principles” nods to the effects of the sharing economy on neighborhoods and the existing political economy of local governance. However, our analysis suggests the need for an additional principle recognizing the sharing economy’s substantial dependence upon distinctly urban phenomena. This would refine Miller’s first principle, that “[t]he sharing economy is differentiated and requires a differentiated regulatory response.” *See* Miller, *supra* note 3, at 5. There are certainly important distinctions among sharing firms, but there are equally important similarities in how these firms interact with urban space and depend upon urban conditions. Finally, specific elements of Miller’s analysis can attend to urban geography, such as the relationship between short-term-rentals and the collaboration between government and major hotels on conventions. *See id.* at 14-15, 24-25. While a share of the short-term-rental market might benefit from cultural amenities that hotel taxes help fund, our analysis suggests that short-term-rentals depend instead upon a varied set of neighborhood-level amenities in close proximity to a particular rental.

the link between the urban character of the sharing economy and the resulting regulatory landscape. It explores how sharing enterprises leverage existing disjunctions in urban governance and contends that the distributed and experimentalist nature of regulatory responses to the sharing economy holds promise for developing empirically grounded and finely calibrated policies. Part III then discusses how the sharing economy will transform how people interact with cities and each other, creating not only a new economy but also ultimately a new urban geography. Finally, Part IV argues that this sector has similar potential to impact the broader regulatory landscape of city life, necessitating a new, holistic approach to urban governance in the emerging age of the sharing economy.

I. URBAN CONDITIONS AS THE HIDDEN ARCHITECTURE OF THE SHARING ECONOMY

Urbanists have long argued that technology will render cities obsolete,²⁹ and geographers and sociologists have asserted that revolutions in communication have “changed the relationship between time and space.”³⁰ The sharing economy, however, represents a strain of innovation firmly rooted in urban geography, with a flow of information through technology that remains highly dependent upon the spatial dimensions of the market relationships it facilitates. As such, the sharing economy is an entirely new type of information network, one that remains profoundly place-based.³¹ As this Part highlights, the rapid

29. See STEPHEN GRAHAM & SIMON MARVIN, *TELECOMMUNICATIONS AND THE CITY: ELECTRONIC SPACES, URBAN PLACES* 89-92 (1996) (summarizing influential theories predicting that telecommunications and technology would spur decentralization and movement away from cities); see also WILLIAM G. FLANAGAN, *URBAN SOCIOLOGY: IMAGES AND STRUCTURE* 378 (2010) (discussing how in the mid-1990s commentators were imagining “that instant communication meant that people, industry, research facilities, and so forth, could be located anywhere with respect to each other, and this was rendering cities obsolete”). *But see* Edward L. Glaeser, *Are Cities Dying?* 12 *J. ECON. PERSP.* 139, 139 (1998) (contending that recent trends of urbanization are “not nearly as pessimistic as the prognosticators”).

30. See P.J. Taylor, *World City Networks: Measurement, Social Organization, Global Governance, and Structural Change*, in *CITIES AND GLOBAL GOVERNANCE: NEW SITES FOR INTERNATIONAL RELATIONS* 201 (Mark Amen et al. eds., 2011). Taylor summarizes an argument made by sociologist Manuel Castells: “In previous societies social organization was largely facilitated by a spatial organization that enabled simultaneity: people coming together to interact through being in the same place at the same time (e.g. a weekly market place). Recent developments in communication (from the 1970s) have enabled simultaneity to be virtually created worldwide without people having to physically come together.” *Id.* at 204-05.

31. Taylor notes, however, again drawing on Castells, that the “virtual world of information flows” that marks “global network society” still “requires grounding in specific places—nodes—where necessary command and control functions, and innovation and development processes, occur.” *Id.* at 205. Global cities provide the nodes for this global network society. Somewhat analogously, amenity-rich dense

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growth of sharing economy companies is due in substantial part to the innovative solutions they provide to recurring frustrations of city life. At the same time, these firms take advantage of reduced transportation costs, improve the matching of producers and consumers of goods and services, and both depend upon and foster positive spillovers. Shifting from urban geography and economics to urban sociology, this Part also explains how the sharing economy's reputation methods can be reconceptualized as a means to address conditions of mass anonymity particularly associated with urban living.

A. *Urban Geography Under the Platform*

The density and scale of cities inevitably poses challenges for the production and movement of goods and services. However, these same conditions spur innovative solutions and the creation of new products and services. Sharing economy firms thus provide value to consumers by leveraging urban geography.³²

1. Innovation and Urban Frictions

Jane Jacobs argued that urban density and scale, while posing challenges for residents, also spur innovation.³³ According to Jacobs, the challenges of city life—which bear some resemblance to what urban economists refer to as “congestion costs”³⁴—“can only be eliminated by adding new goods and services into economic life.”³⁵ Much of the sharing economy provides value to consumers by alleviating costs and frustrations of city life: enabling individuals to avoid the hassles of car ownership by relying on car and ride share programs or enabling those who do own cars to avoid long searches for parking in dense downtowns

urban neighborhoods might be understood as the locus in which the sharing economy thrives and innovates.

32. To be clear about what we mean by density and scale, as with the open-ended idea of urbanism, *see supra* note 7, we are talking about the size of a community and the number of people in a given area. A widely used definition, from the U.S. Census Bureau, defines urban density primarily on the basis of residential population density, which the Bureau measures using a complex formula that boils down in the urban core mainly to 1,000 persons per square mile (ppsm) and in the contiguous urban fringe to 500 ppsm. Urban Area Criteria for the 2010 Census, 76 Fed. Reg. 53,030, 53,039-41 (Aug. 24, 2011). The relevance for our analysis of urban geography and the sharing economy is, to put it in plain terms, that when you have a lot of people close together, certain social and market dynamics tend to flow from that proximity.
33. *See* JACOBS, *supra* note 12, at 86, 104-07.
34. Jeffrey C. Brinkman, *Congestion, Agglomeration, and the Structure of Cities* (Fed. Reserve Bank of Phil., Working Paper No. 13-25, 2013), <http://philadelphiafed.org/research-and-data/publications/working-papers/2013/wp13-25.pdf>.
35. JACOBS, *supra* note 12, at 104.

by providing an on-demand valet.³⁶ Some platforms purport to offer solutions to problems of urban life that serve the city more generally, such as by facilitating carpools that reduce traffic congestion.³⁷ Platform providers also capitalize upon structural inefficiencies in existing city services. Companies like Bridj, which provides ride sharing in small buses with routes determined based upon dynamic data regarding the location of customers,³⁸ benefit from inefficiencies in local public transportation systems—including their operation on fixed lines—that are incapable of easily adjusting to changing commuting patterns.³⁹

Jacobs contended that cities provide environments in which individuals vigorously add new work to older work, which spurs the creation of new goods and services, providing solutions to the challenges of urban life.⁴⁰ This analysis

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36. See LUXE, <http://lux.com/about> (last visited Aug. 25, 2015) (“Founded and based in San Francisco, Luxe is a new service that sends valets to park for you, wherever you are—it’s fast, affordable and convenient.”).
37. Venturing into the sharing economy space, Google has begun testing RideWith, a carpool app that matches passengers with drivers who share a similar commute. Marielle Mondon, *Google Takes on Carpooling with Waze Spinoff App*, NEXT CITY (July 8, 2015), <https://nextcity.org/daily/entry/google-waze-carpool-app-test>. Drivers are limited to providing two trips a day, intended to match their daily commute, a restriction that limits revenue but may also limit opposition from taxi drivers. *Id.* Uber’s own carpool service, uberPool, was launched in 2014 and as of April 2015 operated in five cities. Conor Myhrvold, *It’s a Beautiful (Pool) Day in the Neighborhood*, UBER NEWSROOM (Apr. 16, 2015), <http://newsroom.uber.com/la/2015/04/its-a-beautiful-pool-day-in-the-neighborhood/>.
38. See Jess Zimbabwe, *First Over the Bridj*, URB. LAND (July 6, 2015), <http://urbanland.uli.org/economy-markets-trends/first-bridj/> (noting that rather than following a traditional scheduled route, “Bridj—much like the car-sharing services Uber and Lyft—uses real-time data to take the transit to where the people are”); see also Katharine Q. Seelye, *To Lure Bostonians, New “Pop-Up” Bus Service Learns Riders’ Rhythms*, N.Y. TIMES (June 4, 2014), <http://www.nytimes.com/2014/06/05/us/to-lure-bostonians-new-pop-up-bus-service-learns-riders-rhythms.html> (discussing how Bridj collects data from a range of sources to “determine how a city moves”).
39. Lori Aratani, *D.C.’s New Identity? A Hub for Transportation Innovation*, WASH. POST, (June 21, 2015), https://www.washingtonpost.com/local/trafficandcommuting/dcs-new-identity-a-hub-for-transportation-innovation/2015/06/20/50ddaaf2-f8e1-11e4-a13c-193b1241d51a_story.html. In contrast, Bridj is able to quickly drop a service in areas with low ridership and add service in other places. *Id.* Lyft’s cofounder has identified the significant inefficiency in existing transportation systems as a key reason why the sharing economy first flourished in that sector. J.B. Wogan, *How Will the Sharing Economy Change the Way Cities Function?*, GOVERNING (Oct. 2013), <http://www.governing.com/topics/urban/gov-how-sharing-economy-will-change-cities.html>.
40. See JACOBS, *supra* note 12, at 50. Adam Smith identified cities with increased specialization within industries, but Jacobs asserted that Smith ignored the important predicate question of the emergence of new industries. See *id.* at 81

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can help to explain the rapid rise of sharing platforms like Uber. Rather than a revolutionary technological advance, Uber represents the combination of somewhat new but already widely available technology, the smartphone and GPS, with existing models for providing transportation.⁴¹ Other peer-to-peer providers of services and goods similarly combine technology with existing activities, such as cleaning a house or sharing a lawn mower.⁴² In dense, urban spaces, this kind of creativity can rapidly cycle and build, spurred by a constant demand for ways to respond to challenges of city living.

2. Taking Advantage of Proximity

Urban life is not, of course, simply a series of frustrating experiences in need of solutions. Rather, as urban economists have long recognized, individuals are drawn to cities by the many benefits that accrue from the proximity and density that define them.⁴³ These benefits, which represent the inverse of congestion costs, are referred to as agglomeration benefits.⁴⁴ David Schleicher's groundbreaking work, particularly his article *The City as a Law and Economic*

(“Adam Smith, who identified the principle of the division of labor and explained its advantages, seems not to have recognized that new work arises upon older divisions of labor.”). For Jacobs, the division of labor by itself does not create new products; it only improves the efficiency of existing work. *Id.* at 82.

41. See Larry Downes, *Lessons from Uber: Why Innovation and Regulation Don't Mix*, FORBES TECH (Feb. 6, 2013, 5:00 AM), <http://www.forbes.com/sites/larrydownes/2013/02/06/lessons-from-uber-why-innovation-and-regulation-dont-mix/> (asserting that Uber relies upon “standard uses of off-the-shelf mobile technology” and that there is nothing about its platform “that couldn't or shouldn't have already been implemented by existing taxi and limo services”).
42. In a paper analyzing the development of TaskRabbit, Emily Isaac contends that “[t]he app/platform economy embodies Jane Jacobs' theory of ‘New Obsidian’—the process of adding new kinds of work to other kinds of older work.” Emily Isaac, *Innovative Clusters and New Work: A Case Study of TaskRabbit* 15 (Berkeley Roundtable on the Int'l Econ., Working Paper No. 2, 2015).
43. See Gilles Duranton & Diego Puga, *Micro-Foundations of Urban Agglomeration Economies*, 4 HANDBOOK REG. & URB. ECONS. 2063, 2065 (2004) (“One cannot make sense of . . . the extent to which people cluster together in cities and towns, without considering some form of agglomeration economies or localised aggregate increasing returns.”); see also David Schleicher, *The City as a Law and Economics Subject*, 2010 U. ILL. L. REV. 1507, 1516 (2010).
44. Agglomeration economics seeks to explain why and how the clustering of individuals and firms in large and dense urban areas increases productivity and innovation. See Duranton & Puga, *supra* note 43, at 2065-67; Edward L. Glaeser & Joshua D. Gottlieb, *The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States*, 47 J. ECON. LIT. 983, 984 (2009); Diego Puga, *The Magnitude and Causes of Agglomeration Economies*, 50 J. REG. SCI. 203, 203 (2010); see generally EDWARD L. GLAESER, INTRODUCTION TO AGGLOMERATION ECONOMICS (2010).

Subject, has brought these theories into the mainstream of legal scholarship on local government law.⁴⁵ There are three general theories for how urban space influences economic growth and innovation, which trace back to Alfred Marshall's late nineteenth-century work.⁴⁶ The first emphasizes that reduced transportation costs due to urban density and proximity increase productivity and enable economic growth.⁴⁷ The second set of theories highlights the benefits that accrue from labor market pooling.⁴⁸ And a third strain argues that ideas spread more rapidly in dense cities where proximity facilitates interaction.⁴⁹ Each of these urban phenomena has distinct relevance for understanding the emerging sharing economy, although all three strands are deeply intertwined.⁵⁰

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45. Schleicher, *supra* note 43, at 1515-29 (providing an overview of agglomeration economics and discussing Alfred Marshall's three explanations for the increasing returns that accrue from city size).
46. ALFRED MARSHALL, PRINCIPLES OF ECONOMICS 267-77 (8th ed. 1920); *see* Duranton & Puga, *supra* note 43, at 2066 ("Urban agglomeration economies are commonly classified into those arising from labour-market interactions, from linkages between intermediate- and final-goods suppliers, and from knowledge spill-overs, loosely following the three main examples provided by Marshall (1890) in his discussion of the sources of agglomeration economies."). Marshall influenced thinkers from Jacobs to Paul Krugman. *See, e.g.*, JACOBS, *supra* note 12 (discussing how cities speed flow of ideas and encourage innovation); Paul Krugman, *Increasing Returns and Economic Geography*, 99 J. POL. ECON. 483 (1991) (discussing the effect of agglomeration on the cost of transporting goods).
47. Glaeser & Gottlieb, *supra* note 44, at 984. Puga provides his own list of three broad explanations for the mechanisms through which agglomeration functions. His first explanation, the sharing mechanism, posits that that "a larger market allows for a more efficient *sharing* of local infrastructure and facilities, a variety of intermediate input suppliers, or a pool of workers with similar skills." Puga, *supra* note 44, at 210. In some ways this mechanism provides a more specific explanation of how reduced transportation costs increase productivity. Puga's other two mechanisms more closely align with Glaeser's second and third sets of theories. On Puga's account, the second mechanism through which agglomeration functions is that a larger market can create opportunities for more suitable or higher quality matching among buyers and suppliers and employers and employees. *Id.* Third, learning can be facilitated by a larger market, enabling improvements and broader adoption of advances in technology and business practices. *Id.*
48. *See id.*
49. *See id.*
50. It bears noting that the scale that supports the sharing economy is also a question of urbanism. Some commentators have argued that the sharing economy represents nothing novel, in that many of the underlying activities previously existed even if they were mediated through less formal and technologically-dependent mechanisms. Boarding houses, carpools, and spot labor markets all preceded the sharing economy. As Kellen Zale has argued, however, scale matters here, *see* Kellen Zale, *Sharing Property*, 87 COLO. L. REV. 501 (2016), and has

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To begin, the reduced transportation costs that result from bringing economic actors closer together have always been a primary benefit of cities writ large.⁵¹ However, as the cost of transporting goods has declined over time, these specific benefits have played a decreasingly important role in explaining the growth of cities and the clustering of firms within them.⁵² Today the advantages of urban locales in reducing transportation costs are more important for service firms than for manufacturers.⁵³ As Edward Glaeser notes, while reductions in the costs of moving goods have declining importance for agglomeration benefits, “[t]he costs of moving people and ideas . . . appear to be as important as ever.”⁵⁴

This is all the more so for the sharing economy. Providers of goods and services through the sharing economy benefit, in urban areas, from the ability to more easily serve their customers, resulting in greater efficiency and agglomeration benefits and increasing the likelihood that potential providers and customers will find it worthwhile to participate in this economy.⁵⁵ Services like Instacart, which quickly delivers groceries from “favorite local stores,” explicitly depend upon density and the proximity of customers and shoppers for their success.⁵⁶ Many sharing firms also benefit from the positive spillovers generated by proximity to existing urban resources or amenities. These firms depend, for

transformed these activities into a new economy. That transformative scale is facilitated by the urban nature of the sharing economy.

51. See Glaeser, *supra* note 29, at 140 (“All of the benefits of cities come ultimately from reduced transport costs for goods, people, and ideas.”).
52. Schleicher, *supra* note 43, at 1520; see also Glaeser, *supra* note 29, at 140, 144-45 (noting that the decline in transportation costs and in large-scale manufacturing over the course of the twentieth century eliminated most of the importance of reduced transportation costs for the positive benefits of agglomeration).
53. Glaeser & Gottlieb, *supra* note 44, at 1023.
54. Glaeser, *supra* note 29, at 140.
55. See Glaeser & Gottlieb, *supra* note 44, at 1001 (noting that, in addition to reduced transportation costs for goods, “[a]gglomeration economies can exist because of reduced transportation costs for people: labor markets may be more efficient in urban areas and service providers may find it easier to cater to their customers”); see also *id.* at 1006 (“[I]t is natural to think that transport costs are more important for service firms where output typically involves face-to-face contact.”).
56. *Frequently Asked Questions*, INSTACART, <https://www.instacart.com/shoppers> (last visited Mar. 2, 2016) (“Instacart is an on-demand grocery delivery service. Customers order groceries from their favorite local stores and we handpick the items and deliver the order to them.”); see also KRISTINA DERVOJEDA ET AL., EUR. COMM’N, BUS. INNOVATION OBSERVATORY, THE SHARING ECONOMY: ACCESSIBILITY BASED BUSINESS MODELS FOR PEER-TO-PEER MARKETS 13 (2013) (noting that participants in platforms for sharing specific goods, including meals, “are reliant on the neighbours in their direct vicinity, because the value of service provided is relatively low and thus more easily topped by distance related transaction costs”).

a significant amount of their value proposition, on the interactions they facilitate within particular urban neighborhoods and on their ability to leverage the depth of existing local resources. Instacart relies upon a sufficient number of brick-and-mortar grocery stores nearby to allow shoppers to obtain the items requested and deliver them in a timely manner. In a comparable fashion, Saucey, which shops for favorite beer, wine, and liquor and delivers within an hour, depends on local stores for its stock of inebriants.⁵⁷

In an analogous manner, the short-term rental segment of the sharing economy relies upon the amenities available in close proximity to the lodging it offers in cities, a distinctly place-based aspect of much of its success.⁵⁸ Although costs frequently play a role in a traveler's decision to use Airbnb rather than a conventional hotel, Airbnb's summary of its economic impact studies in multiple cities states that 79% of Airbnb travelers "want to explore a specific neighborhood" and 91% "want to live like a local."⁵⁹ As the company's Chief Marketing Officer recently remarked, a crucial component of Airbnb's attractiveness to potential guests is its ability to offer housing in particular urban neighborhoods that provide a more "authentic" experience of a place.⁶⁰ For most travelers, a

57. SAUCEY, <https://sauceyapp.com/> (last visited Aug. 25, 2015). Saucey negotiates reduced prices with the brick-and-mortar businesses from which it purchases. See Geoffrey A. Fowler, *There's an Uber for Everything Now*, WALL ST. J. (May 5, 2015, 1:09 PM), <http://www.wsj.com/articles/theres-an-uber-for-everything-now-1430845789>. This relationship creates the possibility that such delivery services, rather than simply competing with local establishments, might help local businesses increase the volume of their business.

58. Admittedly, certain sharing companies, including prominent short-term rental sites such as Airbnb, can be found in less dense locales. Airbnb is able to have successful listings in many smaller communities. Yet even in such markets its operation relies upon a form of agglomeration. By listing on the platform, owners benefit from clustering through the presence of many listings in a single location, which attracts a larger number of potential customers (akin to the agglomeration benefits of a specialized business district). Moreover, as the sharing platform scales up in size, this dense aggregation of consumers with a variety of tastes may lead to greater specialization among listings. Hence even in smaller and less-dense locales, which in the absence of platforms matching hosts and prospective guests would otherwise only have standard hotel lodgings in a single hotel in a center of town, a variety of lodging types becomes more likely.

59. *The Economic Impacts of Home Sharing in Cities Around the World*, AIRBNB, <https://www.airbnb.com/economic-impact> (last visited July 20, 2015).

60. Airbnb's CMO said in a recent interview that those who use Airbnb want to "actively avoid the places where . . . global brands are present" by staying in neighborhoods, rather than downtown, so as to avoid a "standardization of experiences" he ascribes to globalization. See Dan Peltier, *Skift Global Forum: Airbnb's CMO on the Meaning of Authentic Travel Experiences*, SKIFT (July 14, 2015), <http://skift.com/2015/07/14/skift-global-forum-2015-airbnbs-cmo-on-the-meaning-of-authentic-travel-experiences>. The CEO of Marriott appeared to agree with this assessment, remarking during a television appearance that Airbnb enables tourists

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neighborhood's attractiveness will depend in significant part upon the extent to which it provides, within walking distance, the rich fabric of urban amenities that also makes it appealing to residents.

3. Accelerating Matching

In cities, the rapid exchange of goods and services facilitated by the proximity of buyers and sellers interacts with density, providing a deeper pool of buyers and sellers. That thicker market in close contact ensures more efficient matching.⁶¹ More efficient and higher-quality matching of worker skills and job requirements can maximize the productivity of firms and workers⁶² and increase average income per worker.⁶³ Deeper labor pools also foster specialization in cities, which encourages the provision of particular goods and services that might otherwise not exist.⁶⁴ Hence specialized occupations are more likely to thrive in larger cities, creating a virtuous cycle.⁶⁵ In sum, we can expect to see, in urban areas, more efficient matching, measured by both the likelihood

to experience neighborhoods in a way that hotels cannot. See Brad Tuttle, *Marriott's CEO Just Made a Pretty Good Sales Pitch for . . . Airbnb?*, MONEY (July 9, 2014), <http://time.com/money/2964290/marriott-airbnb-arne-sorenson-neighborhoods>.

61. See Puga, *supra* note 44, at 204-05. Smith famously contrasted the depth and specialization of labor pools in cities with "the Highlands of Scotland" where "every farmer must be butcher, baker and brewer for his own family." ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 31 (R.H. Campbell & A.S. Skinner eds., 1981) (1776).
62. See Robert W. Helsley & William C. Strange, *Matching and Agglomeration Economies in a System of Cities*, 20 REG. SCI. & URB. ECON. 189, 190 (1990).
63. See Duranton & Puga, *supra* note 43, at 2089.
64. See SMITH, *supra* note 61, at 12-13 (providing an example of greater efficiency achieved through the division of labor among pin-makers); see also Glaeser & Gottlieb, *supra* note 44, at 1006-07 ("One hypothesis is that the benefits of specialization create increasing returns in business services. In a large city, with abundant clients it is possible to specialize in a narrow area, which will improve quality and reduce the need for general training. . . . In large markets, business service providers can specialize more completely, reaping all of the associated benefits.").
65. See Glaeser, *supra* note 29, at 146 (noting that "perusing the Yellow Pages of different-sized cities" reveals the "connection of the division of labor and city size" and providing a necktie restoration business as one example). Similarly, in the Yellow Pages of Portland, Oregon, under "clowns" one will find such specialized performers as "Eartha: The Ecological Clown." See Shari Phiel, *Eartha the Clown Takes the Planet Seriously*, DAILY NEWS (Apr. 16, 2014), http://www.tdn.com/news/local/eartha-the-clown-takes-the-planet-seriously/article_88aed12-c5fo-11e3-b64f-001a4bcf887a.html This might indicate that, in addition to a city's size, its unique culture might affect the extent and forms of specialization.

that a successful match is achieved and the speed with which it is achieved, and higher-quality matching, measured by a closer fit between worker skill and desired qualifications. More successful matching of platform users with desired goods and services strengthens demand for a given platform.

Marshall contended that deep labor markets and more efficient and higher-quality matching drive firms and workers to cities.⁶⁶ This insight applies to consumption markets as well as labor markets.⁶⁷ An abundance of potential customers can drive the location decisions of firms that specialize in providing certain services.⁶⁸ The diversity of goods and services found in cities is thus due not only to the specialization of the labor that produces it but also to the diverse tastes of consumers.⁶⁹ As Jacobs argued, “The diversity, of whatever kind, that is generated by cities rests on the fact that in cities so many people are so close together, and among them contain so many different tastes, skills, needs, supplies, and bees in their bonnets.”⁷⁰

Rauch and Schleicher aptly argue that market depth is the agglomeration benefit of greatest relevance for the sharing economy.⁷¹ Sharing platforms, on their account, serve to “substantially deepen already deep urban markets” by

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66. See MARSHALL, *supra* note 46, at 271 (“Employers are apt to resort to any place where they are likely to find a good choice of workers with the special skill which they require; while men seeking employment naturally go to places where there are many employers who need such skill as theirs and where therefore it is likely to find a good market.”).
67. See Schleicher, *supra* note 43, at 1521. Marshall asserted that consumers also benefit from the concentration of specialized shops. For while an individual making a “trifling purchase” will visit the nearest store, he or she will travel across town to specialty shops for an important purchase. It is for this reason that “shops which deal in expensive and choice objects tend to congregate together; and those which supply ordinary domestic needs do not.” MARSHALL, *supra* note 46, at 273; see also Edward Glaeser, Jed Kolko & Albert Saiz, *Consumers and Cities*, in *THE CITY AS AN ENTERTAINMENT MACHINE* 135 (Terry Nichols Clark ed., 2011) (contending that “too little attention has been paid to the role of cities as centers of consumption”).
68. See Glaeser & Gottlieb, *supra* note 44, at 1006 (citing Jed Kolko, *Essays on Information Technology, Cities, and Location Choice* (2000) (unpublished)).
69. See Gideon Parchomovsky & Peter Siegelman, *Cities, Property, and Positive Externalities*, 54 WM. & MARY L. REV. 211, 237-40 (2012) (discussing economics literature analyzing how consumer preferences in cities produce agglomeration effects).
70. JANE JACOBS, *THE DEATH AND LIFE OF GREAT AMERICAN CITIES* 147 (1961). Richard Florida, building on Jacobs’ insight, notes that “[w]hile companies tend to specialize, places give rise to a wide variety of talents and specialties, the broad diversity of which is a vital spur to innovation.” RICHARD FLORIDA, *WHO’S YOUR CITY? HOW THE CREATIVE ECONOMY IS MAKING WHERE YOU LIVE THE MOST IMPORTANT DECISION OF YOUR LIFE* 68 (2008).
71. Rauch & Schleicher, *supra* note 3, at 34.

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facilitating transactions between those in close proximity.⁷² This can be seen in peer-to-peer platforms that enable individuals to share goods and services by facilitating improved matching.⁷³

The success in matching niche suppliers to niche consumers that these and other firms within the “on demand” subset of the sharing economy rely on for their success depends upon the larger, more specialized pools of buyers and sellers found in urban locales.⁷⁴ This is particularly true when the services provided are of lower value.⁷⁵ A recent study using data from TaskRabbit to model the creation of successful matches through a peer-to-peer platform found there was substantial variation in matching efficiency across cities and that participation grew most rapidly in cities where buyers and sellers were matched more efficiently.⁷⁶ The authors attributed differences in matching efficiency to “two measures of market thickness: geographic density (buyers and sellers living close together), and level of task standardization (buyers requesting homogeneous tasks).”⁷⁷ Efficient matching is also of relevance for peer-to-peer rentals of durable goods, as consumers will consider the cost of taking physical possession

72. *Id.* at 36.

73. As *The Economist* has observed, on-demand services “put time-starved urban professionals in timely contact with job-starved workers.” *There’s an App for That*, *ECONOMIST* (Jan. 3, 2015), <http://www.economist.com/news/briefing/21637355-freelance-workers-available-moments-notice-will-reshape-nature-companies-and>. However, the article proceeds to note that this creates a “sometimes distasteful caricature of technology-driven social disparity in the process.” *Id.*

74. Cf. Nestor M. Davidson & Sheila R. Foster, *The Mobility Case for Regionalism*, 47 U.C. DAVIS L. REV. 63, 93 (2013) (describing how larger and more diverse labor pools enable improved “matching” between the skills of workers and potential employers).

75. See DERVOJEDA ET AL., *supra* note 56, at 11 (“[I]n remote regions (non-urban areas) uptake of certain peer-to-peer models will be difficult. Platforms that facilitate sharing of physical goods or services of low added value . . . are unsuitable for (early) uptake in for instance rural areas. It is significantly harder to reach the required critical mass in these areas.”).

76. Zoë Cullen & Chiara Farronato, *Outsourcing Tasks Online: Matching Supply and Demand on Peer-to-Peer Internet Platforms 2* (Feb. 2015) (unpublished manuscript) (on file with authors). The paper focuses on “a basic economic problem for peer-to-peer marketplaces: how to equilibrate highly variable demand and supply when matches often need to be made locally and rapidly.” *Id.* at 1.

77. *Id.* at 2; *see also id.* at 4 (“The biggest reason why some cities are more successful than others on TaskRabbit seems to be that in those cities demand is higher and the matching of buyers and sellers is more efficient.”). The authors found the highest rates of matching tasks and offers in San Francisco, Boston, Portland, and New York, where buyers and sellers are separated by a median distance of approximately seven miles. The lowest rates of matching occur in Philadelphia and Miami, where the median distance is over twenty miles. *Id.* at 33.

of an asset when deciding whether to rent it.⁷⁸ Finally, the matching of particularly specialized goods and services through the sharing economy depends on the broad range of consumer tastes within cities, which platforms match with an equally broad range of specialized providers.⁷⁹

4. Generating Information and Knowledge Spillovers

Finally, cities increase productivity as proximity facilitates the rapid transmission of ideas.⁸⁰ Marshall famously wrote that when individuals engaged in the same skilled trade live in close proximity “[t]he mysteries of the trade become no mysteries; but are as it were in the air, and children learn many of them unconsciously.”⁸¹ Such an atmosphere of concentrated industry is ripe with new ideas, inventions, and improvements.⁸² Information spillovers play a well-recognized role in the creation and growth of technology companies, explaining in part their concentration in places like Silicon Valley.⁸³ Jane Jacobs further argued that a second kind of proximity—industry diversity within concentrated geographic areas, rather than the concentration of a sole industry—best explains innovation and economic growth,⁸⁴ a claim supported by recent empirical work on economic growth within cities.⁸⁵

78. See Samuel Fraiberger & Arun Sundararajan, *Peer-to-Peer Rental Markets in the Sharing Economy* 7 (Mar. 6, 2015), <http://ssrn.com/abstract=2574337> (unpublished manuscript) (“[W]hile Internet-enabled marketplaces do lower the transaction costs associated with search and with matching, these are still non zero” and include the costs associated with “taking physical possession of a rented asset.”).

79. See Fowler, *supra* note **Error! Bookmark not defined.** (“And fundamentally, how much does using your phone as a concierge make sense beyond Silicon Valley, New York City and Los Angeles? It’s a question of both supply of willing part-time app workers and demand for a concierge lifestyle.”).

80. See Puga, *supra* note 44, at 216; see also Glaeser & Gottlieb, *supra* note 44, at 1012 (“Overall, a large body of research is at least compatible with the hypothesis that cities thrive because of their ability to spread knowledge.”). The head of at least one sharing-economy firm, the ride-share service Sidecar, has publicly discussed the role density plays in enabling innovation. See Aratani, *supra* note 39 (“D.C. is one of the most [densely populated] cities in the United States,’ Sidecar’s [Chief Executive] Paul notes. ‘With that kind of density, it’s easier to come up with new innovations, because you have the people.’”) (first set of brackets in original, second set of brackets added).

81. MARSHALL, *supra* note 46, at 271.

82. See *id.*

83. ANNALEE SAXENIAN, *REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128*, at 2-3 (1996).

84. See Richard C. Schragger, *Cities, Economic Development, and the Free Trade Constitution*, 94 VA. L. REV. 1091, 1102 (2008) (noting that economists have described these effects as “Jane Jacobs externalities”) (citing David Nowlan, *Jane*

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Rauch and Schleicher dismiss as unlikely the possibility of a strong link between information spillovers and sharing economy firms, aside from acknowledging the possibility that the sharing economy encourages interactions that would not otherwise occur.⁸⁶ Yet information spillovers play an important role in the development of particular sharing economy innovations, in the rapid adoption of sharing platforms by new users in dense urban settings, and in the very nature of certain services provided through the sharing economy.

On the first point, a recent paper traces the development of TaskRabbit, which has benefited from information spillovers and related benefits derived from locating within a cluster of sharing-economy and technology firms in San Francisco.⁸⁷ Before moving to San Francisco, the company's founder received early advice and support in Boston from the CEO of an earlier sharing-economy firm, Zipcar.⁸⁸ Through participation in a Facebook-sponsored startup incubator program, TaskRabbit's founder made connections with early investors and advisors.⁸⁹ Facing problems in the summer of 2013, TaskRabbit shifted from an auction-house model of matching users and taskers to a system "almost identical to the system employed by Uber," which was located just down the street from TaskRabbit's offices.⁹⁰ Moreover, TaskRabbit located in San Francisco, rather than Silicon Valley, due to "the new and changing demands of modern technologies and the intrinsic benefits of cities as economic clusters fertile in diverse talent, dense in human interactions, and open to new

Jacobs Among the Economists, in IDEAS THAT MATTER: THE WORLDS OF JANE JACOBS 111-13 (Max Allen ed., 1997)).

85. See Edward L. Glaeser et al., *Growth in Cities*, 100 J. POL. ECON. 1126, 1129 (1992) (finding that "city-industries grow faster when the rest of the city is less specialized," which "supports Jacobs's view that city diversity promotes growth as knowledge spills over industries").
86. Rauch & Schleicher, *supra* note 3, at 34 n.182.
87. See Isaac, *supra* note 42, at 1 (arguing "that TaskRabbit's move to San Francisco [from Boston] early in its development has allowed the company to profit and develop from exposure to the cluster's locally-embedded knowledge and buzz and its 'entrepreneurial support network' composed of willing venture capital investors and advisors"). The headquarters of sharing economy firms are largely clustered in the San Francisco Bay Area and in New York City. By one measurement, the number of investment deals, sixty-five percent of deals involving on-demand firms went to California-headquartered companies and eighteen percent went to companies headquartered in New York. CB INSIGHTS, THE ON-DEMAND REPORT: A DATA-DRIVEN REVIEW OF U.S. FINANCING ACTIVITY AND TRENDS IN ON-DEMAND MOBILE SERVICES 13 (2015).
88. See Isaac, *supra* note 42, at 2.
89. *Id.* at 3, 9.
90. *Id.* at 12. According to Isaac, location was key here: "[h]ad the company stayed in Boston, it perhaps may not have been as inspired or able to model its system off of a competitor's." *Id.*

ideas and innovations.”⁹¹ In these and other ways, TaskRabbit provides an example of a sharing-economy firm benefiting from the information spillovers that accrue from physical proximity to other companies and in many cases from face-to-face contact with other innovators and potential financial backers.⁹²

Second, dense urban environments speed the adoption of sharing-economy platforms. Word-of-mouth recommendation plays a crucial role in attracting users to a new platform.⁹³ In addition, individuals who participate in one facet of the sharing economy, taking a ride in an Uber or working as a Tasker, are more likely to start participating in other ways, perhaps renting out their home via Airbnb. Given these synergies, sharing-economy companies recognize the crucial role that establishing a substantial presence in urban areas plays in spurring their initial growth.⁹⁴

Third, certain sharing economy firms seek to foster information spillovers and explicitly market this benefit. Co-working firms, for example, provide individuals with flexible access to communal office workspaces and services ranging

91. *Id.* at 6.

92. As Michael Storper and Anthony Venables have argued, “face-to-face contact” is a fundamental component of proximity. See Michael Storper & Anthony J. Venables, *Buzz: Face-to-face Contact and the Urban Economy*, 4 J. ECON. GEO. 351, 351-53 (2004).

93. See Alexandra Samuel, *Infographic: Word of Mouth Drives Growth of the Collaborative Economy*, VISION CRITICAL (Apr. 22, 2014), <https://www.visioncritical.com/infographic-word-mouth-drives-growth-collaborative-economy> (discussing survey of sharing-economy participants, which revealed that forty-seven percent of participants discovered the platform they most recently used via word of mouth); see also Cullen & Farronato, *supra* note 76, at 31 (remarking that “[w]ord of mouth and information diffusion” provide the most plausible explanation for variations in adoption and efficiency of peer-to-peer platforms across cities); PRICEWATERHOUSECOOPERS LLP, CONSUMER INTELLIGENCE SERIES, *THE SHARING ECONOMY* 9 (2015) (reporting that sixty-nine percent of survey respondents “agree that they will not trust sharing economy companies until they are recommended by someone else”).

94. It should come as no surprise, moreover, that sharing-economy firms often establish themselves first in major cities and even in particular neighborhoods within cities. With the wealth of data they rely upon, sharing firms and individuals who provide services through these platforms are able to quickly identify the deepest markets for potential customers. Jonathan Hall & Alan Krueger, *An Analysis of the Labor Market for Uber’s Driver-Partners in the United States* 21 (Princeton Univ. Industrial Section Working Paper, Jan. 22, 2015), https://s3.amazonaws.com/uber-static/comms/PDF/Uber_Driver-Partners_Hall_Krueger_2015.pdf (“Because the six largest markets have greater density and population than the other markets, there is probably a more consistent demand for Uber services.”). The report notes that eighty-five percent of all Uber drivers work in twenty markets. See *id.* at 7.

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from a shared desk to a dedicated office space.⁹⁵ In addition, these firms—which operate primarily in urban areas⁹⁶—invite customers to join an “ecosystem” and to “connect” with other “creators.”⁹⁷ One Boston-area provider of co-working spaces explicitly invokes the benefits of such spillovers, declaring that “[t]he perfect working environment can push your team from good to great.”⁹⁸ It offers individuals the opportunity to collaborate with (and learn from) industry leaders at a “Center of Excellence.”⁹⁹ Co-working spaces are also often an integral component of the innovation districts—geographic areas specifically designed to create conditions of density and agglomeration that foster innovation, new business development, and economic growth—that many cities have sought to establish in recent years.¹⁰⁰

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95. See, e.g., WEWORK, <http://www.wework.com> (last visited June 8, 2016) (offering “Commons” membership providing flexible access to share space, as well as dedicated desk and office memberships); *About Workbar*, WORKBAR, <http://www.workbar.com/about> (last visited June 8, 2016) (providing a “network of coworking spaces where independent professionals, start-ups, small businesses, and remote employees of larger enterprises can enjoy a vibrant community and high quality office amenities at an affordable price”); see generally Alessandro Gandini, *The Rise of Coworking Spaces: A Literature Review* 15 EPHEMERA 192 (2015).
96. See WEWORK, *supra* note 95 (listing locations in major cities).
97. See *Wework Commons*, WEWORK, <https://www.wework.com/commons> (last visited June 8, 2016); see also WORKBAR, <http://www.workbar.com> (last visited June 8, 2016) (“Workbar’s coworking spaces provide the right balance between concentration and collaboration. Join Workbar’s ecosystem of startups, small businesses, independent professionals, and remote teams to do your best work.”).
98. WORKBAR, *supra* note 97. One commentator situates the emergence of co-working spaces within “the existing theory of the creative, urban economy.” Bruno Moriset, *Building New Places of the Creative Economy: The Rise of Coworking Spaces* (Working Paper, 2013), <https://halshs.archives-ouvertes.fr/halshs-00914075/>.
99. See WORKBAR, *supra* note 97; Eden Shulman, *Workbar Announces the Seven Fintech Startups Participating in its Center of Excellence*, BOST. GLOBE: BETA BOST. (July 9, 2015), <http://www.betaboston.com/news/2015/07/09/workbar-announces-the-seven-fintech-startups-participating-in-its-center-of-excellence> (“Workbar’s Centers of Excellence are collaborations with leading local companies to host and support startups within their field.”); see also Elise Hu, *How the Sharing Economy is Changing the Places We Work*, NPR’S ALL TECH CONSIDERED (Nov. 14, 2013), <http://www.npr.org/sections/alltechconsidered/2013/11/14/244568645/how-the-sharing-economy-is-changing-the-places-we-work> (quoting the founder of a Denver co-working space, who remarked that rather than work from home or in a coffee shop users “want to come and work in inspiring environments to make connections and be part of a community to share ideas and transfer ideas”).
100. See *FAQ: Co-Working Spaces*, BOST.’S INNOVATION DIST., <http://www.innovationdistrict.org/> (last visited Dec. 16, 2013) (“Collaboration is key to the success of the Innovation District, which is home to many work space options. In fact, 40% of our new companies share space in co-working spaces and incubators.”); see generally BRUCE KATZ & JULIE WAGNER, BROOKINGS INST.,

B. *Urban Anonymity and the Reputational Market*

Geography is not the only urban condition that has shaped the emerging sharing economy. Commentators have widely noted the important role that reputational mechanisms and other features of sharing-economy platforms play in overcoming endemic problems of trust.¹⁰¹ This technologically agnostic feature of the sharing economy actually has a deep and underappreciated connection to urban conditions. Mass anonymity and the lack of social trust have long been understood as defining aspects of city life,¹⁰² and, as this section will explain, sharing-economy reputation tools can be understood as a new technological response—an anonymity workaround, as it were—to this classic urban challenge.

The anonymity afforded by the scale and heterogeneity of life in cities has played a central role in the discourse on urbanism. As Jane Jacobs noted, “Cities are, by definition, full of strangers,”¹⁰³ and this has long generated debates about the consequences of that anonymity. The sociologist Georg Simmel, for example, argued that the ability to lose oneself in the crowd was a normatively valuable aspect of city life.¹⁰⁴ To Simmel, life in cities grants a freedom to shape one’s

INNOVATION DISTRICTS: A NEW GEOGRAPHY OF INNOVATION IN AMERICA 1 (2014) (“These districts, by our definition, are geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators, and accelerators.”). A report on co-working centers by the NAIOP Research Foundation relates the centers to “[i]nterim developments like incubators, innovation centers and accelerators [that] have contributed to the entrepreneurial ecosystem.” ANDREW P. FOERTSCH, NAIOP RESEARCH FOUND., *WORKPLACE INNOVATION TODAY: THE COWORKING CENTER* 4 (2013), <http://www.naiop.org/en/Research/Our-Research/Reports/Workplace-Innovation-Today-The-Coworking-Center.aspx>.

101. See, e.g., Ethan Katsh & Orna Rabinovich-Einy, *Technology and Dispute Systems Design: Lessons from the “Sharing Economy,”* 21 DISP. RESOL. MAG. 8 (2015) (describing a variety of reputation-based trust mechanisms across the sharing economy); Zale, *supra* note 50, at 37 (discussing how public rating mechanisms for peer-to-peer platforms “may be a kind of technological stand-in for informal norms in small-scale communities which enable sharing to occur successfully”).
102. Gerald Frug, *The Geography of Community*, 48 STAN. L. REV. 1047, 1049 (1996) (noting that the urban condition fosters “a recognition that one has to share one’s life with strangers, with strangeness, with the inassimilable, even the intolerable”).
103. JACOBS, *supra* note 70, at 30.
104. Georg Simmel, *The Metropolis and Mental Life*, in ON INDIVIDUALITY AND SOCIAL FORMS 324, 333 (Donald Levine ed., 1971). Simmel and others posited that in urban areas, superficial contacts with a large number of persons, many of whom are not known personally, along with the capacity to remain anonymous, lead to weakened social bonds, alienation, and toleration, undermining social control and enabling deviant behavior. Charles R. Tittle & Mark C. Stafford, *Urban Theory, Urbanism, and Suburban Residence*, 70 SOC. FORCES 725, 726 (1992).

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identity unbounded by the pre-urban constraints of conforming to the needs of close-knit communities. Other urban sociologists, of the Chicago School in particular, have been more troubled by the question of whether community is possible in environments that amass mobile strangers.¹⁰⁵ Some sociologists and urban geographers have found thriving community in even the most distressed pockets of our largest cities,¹⁰⁶ but the difficulty of developing and maintaining community ties—social capital—in heterogeneous, mobile, large-scale communities remains a concern.

For sharing-economy firms, the ubiquitous anonymity of urban life presents a source of competitive advantage and a market niche to develop.¹⁰⁷ In more traditional sectors of the economy, producers and suppliers respond to the lack of social ties through the obvious mechanisms of the arm's-length transaction—point-of-sale interactions, credit checks, and the like. And this is the basis for most economic activity in cities and elsewhere. But the sharing economy has found effective tools to replicate a version of the kind of trust economy associated with pre-urban community.

A common feature of most sharing-economy platforms is reputation scoring. When “hosts” make surplus space in their home available on Airbnb, potential visitors can see detailed ratings and comments about the space and the host. The same is true of Uber drivers, “Taskers,” online editors, and many other service providers. But importantly, providers are often given ratings for *consumers*. Thus, Airbnb guests have their own ratings, as do car-share passengers and many others. These reputational trust mechanisms thus allow sharing-economy companies to add value in new ways, particularly in urban environments. Again, the sharing economy could exist (and small-scale versions of it have always existed) in places marked by close-knit communities, but solving the problem of urban anonymity has clearly opened new and valuable markets. As we shall see below, the sharing economy may be a tool to overcome some of the community limitations of urban anonymity, providing a new mechanism to generate social capital.¹⁰⁸

These mechanisms do not, however, simply solve the problem of urban anonymity. They also provide a means for participants to maintain some sem-

105. For an early articulation of this vein of sociology, see, for example, Louis Wirth, *Urbanism as a Way of Life*, 44 AM. J. SOC. 1 (1938) (arguing that a defining feature of urban life is the relative dearth of intimate personal relationships, replaced instead by interactions that are largely anonymous, superficial, and transitory).

106. See, e.g., Ingrid Gould Ellen & Margery Austin Turner, *Does Neighborhood Matter? Assessing Recent Evidence*, 8 HOUSING POL'Y DEBATE 833, 840-41 (1997) (discussing the literature on social networks); see generally DAVID HARVEY, *JUSTICE, NATURE AND THE GEOGRAPHY OF DIFFERENCE* (1996).

107. Cf. Stephen Ufford, *The Future of the Sharing Economy Depends On Trust*, FORBES (Feb. 10, 2015, 9:00 AM), <http://www.forbes.com/sites/theyec/2015/02/10/the-future-of-the-sharing-economy-depends-on-trust/>.

108. See *infra* Part III.B.

blance of what many urban residents find desirable about anonymity, which Jacobs described as “a gift of great-city life deeply cherished and jealously guarded.”¹⁰⁹ Jacobs noted that at the level of what she termed the “city street neighborhood,” a balance exists between “essential privacy” and the facilitation of “differing degrees of contact, enjoyment or help from the people around.”¹¹⁰

Rather than engage in an arguably more personal informal exchange, which may create unclear social obligations and ambiguous expectations of an ongoing relationship of some form, sharing platforms create sufficient trust to facilitate discrete exchanges. But they do so while maintaining enough separation that participants do not feel obliged to interact again with people on the other side of those exchanges. In this way, what some find attractive about urban life— anonymity, independence, a clearer divide between public and private spaces—can be maintained.¹¹¹ At the same time, the sharing economy has substantial potential to foster social capital in urban areas, a point we discuss more fully in Part III.B. In both scenarios, the sharing economy provides participants the ability to choose where they draw their own line between the public and private spheres of urban life.¹¹²

II. THE SHARING ECONOMY AS AN URBAN GOVERNANCE CHALLENGE

Beyond the physical and social conditions discussed in Part I, the rise of the sharing economy can be understood as a reaction to the current landscape of urban governance. Given the locally-grounded nature of the sharing economy, it should not be surprising that the externalities the sector generates are also highly localized. If an Airbnb guest causes problems, it is not likely to raise regulatory concerns at the national or even state level, but it will certainly tend to aggravate the neighbors down the hall.¹¹³ There are local-scale externalities to

109. JACOBS, *supra* note 70, at 59.

110. *Id.*

111. This assessment—that the sharing economy’s trust mechanisms maintain core elements of urban life—contrasts with a view espoused by Brian Chesky, Airbnb’s co-founder and CEO, who has argued that sharing-economy firms, through trust mechanisms, are fostering a sensibility more akin to a village and that eventually “cities will become communities again.” Uri Friedman, *Airbnb CEO: Cities are Becoming Villages*, ATLANTIC (June 29, 2014), <http://www.theatlantic.com/international/archive/2014/06/airbnb-ceo-cities-are-becoming-villages/373676>.

112. A significant regulatory concern in this calibration of public and private is, of course, privacy. When Airbnb collects data on guests or Uber drivers can be tracked constantly by GPS location, rich troves of information are generated. This has the potential to improve urban governance, but advocates are rightly raising concerns about the loss of privacy that this entails. See *infra* Part II.

113. See Jessica Pressler, *The Dumbest Person in Your Building Is Passing Out Keys to Your Front Door!*, N.Y. MAG. (Sept. 23, 2014), <http://nymag.com/news/features/airbnb-in-new-york-debate-2014-9>.

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earlier generations of technology, but their impact—and hence the locus of regulation—tends to be national in scope.¹¹⁴

At the same time, sharing enterprises have found ways to take advantage of existing local regulatory disjunctions and barriers to entry created by local law. This creates the opportunity for regulatory arbitrage, as sharing-economy firms define and structure their operations to avoid local regulation. These efforts then create tensions, as sharing-economy entrants clash with incumbent providers at the local level.

For all of these reasons, the regulation of the sharing economy has been, and will continue to be, largely a municipal issue. The resulting distribution of regulatory responsibility across thousands of local governments is generating a kind of natural experimentalism. Local variation has always been a byproduct of devolution, but it is a key feature of how the sharing economy is being shaped. In this experimentalist dialectic, there are local tools that may point the way to better regulatory approaches suited to the particular strengths (and particular weaknesses) of urban governments.

A. *Sharing, Urban Frictions, and Arbitrage in Urban Perspective*

1. Exacerbating Localized Externalities

The very urban conditions that create much of the value of the sharing economy can also exacerbate the sector's potential negative impacts. The density and physical proximity that foster thick markets for sharing companies also mean that any negative spillovers are magnified locally. Sharing platforms, by intensifying use of existing resources and unlocking excess capacity, can create concentrated, localized externalities as they rapidly scale up in urban areas.¹¹⁵

Property and localized conflicts over land use provide an obvious example of the kinds of externalities implicated by the sharing economy.¹¹⁶ How housing

114. When Google, for example, shifts norms on privacy, those effects are felt on a national basis, even if in any given instance they have some localized consequences.

115. Of course, positive externalities can also be concentrated in particular local patterns. *Cf.* Cohen & Sundararajan, *supra* note 3, at 122 (“[A]n increase in out-of-town visitors to a neighborhood induced by a high concentration of Airbnb hosts could benefit local restaurants. An increase in tourism caused by greater affordability and range of short-term accommodation could benefit a variety of stakeholders in the hospitality and travel industries.”).

116. See Eric Biber & J.B. Ruhl, *Regulating the “Sharing Economy,”* REGBLOG (July 28, 2014), <http://www.regblog.org/2014/07/28/28-biber-ruhl-regulating-the-sharing-economy> (“[P]roperty renters and owners who make aggressive use of Airbnb to rent out their homes can impose significant impacts on their neighbors, such as traffic and noise.”); see also Elena Berton & Katharina Wecker, *Europe Cracks Down on Airbnb, Other Room-Sharing Sites*, USA TODAY (July 7, 2015), <http://www.usatoday.com/story/money/business/2015/07/06/europe-airbnb-room-sharing/29263881> (reporting that “Paris and Berlin are moving to stop out-of-

and commercial space are used has immediate effects at the neighborhood level. Preserving property values has been one of the primary goals of zoning law—acknowledged or not—since the outset,¹¹⁷ and the sharing of residential and commercial space implicates this directly.¹¹⁸ The obverse of utilizing excess capacity is increasing use intensity,¹¹⁹ which can have both local and city-wide or metropolitan benefits but more vividly will have locally concentrated costs.¹²⁰ Of course, increasing use intensity is only a problem where it is a problem—in cities with excess supply, the sharing economy is merely taking up slack—but frictions will occur where capacity is relatively limited.

Transportation, as it has emerged in the sharing economy, directly implicates commuting patterns, traffic, and questions of public safety at the local level. One promise of collaborative consumption is that it will reduce car usage by tapping excess personal transportation capacity, but even if that optimistic goal is achieved, cities still face the immediate spillovers of additional (or replacement) driving services.¹²¹ Such services may also provide rides at a cost that lur-

towners from overrunning neighborhoods and displacing local residents” and noting that proponents of regulation in Berlin say it will prevent a “frat-house atmosphere in the German capital’s streets”); Matt Stevens & Martha Groves, *Malibu to Crack Down on Short-term Rentals via Airbnb, Other Websites*, L.A. TIMES (May 27, 2014), <http://www.latimes.com/local/la-me-malibu-renting-20140528-story.html> (describing efforts by city officials in Malibu, California, to regulate short-term rentals so as to “cut down on the ‘party house’ atmosphere that has disrupted some neighborhoods”).

117. Kenneth A. Stahl, *Reliance in Land Use Law*, 2013 B.Y.U. L. REV. 949, 952-53.
118. Cf. Lee Anne Fennell, *Agglomerama*, 2014 B.Y.U. L. REV. 1373, 1383 (observing that in metropolitan settings, in contrast with agrarian locales, the location of property relative to other uses provides “an increasingly large proportion of [its] value”).
119. See Rauch & Schleicher, *supra* note 3, at 15.
120. One flashpoint that has emerged in discussions over the accommodation/rental sector of the sharing economy is affordable housing. Opponents argue that sites like Airbnb raise housing costs by reducing the supply of housing available to renters, see N.Y. ATT’Y GEN. ERIC T. SCHNEIDERMAN, AIRBNB IN THE CITY 3 (2014) (noting that in 2013, 2,000 units in New York City were booked as short-term rentals, “rendering them largely unavailable for use by long-term residents”), while proponents counter that sharing provides a source of revenue to make housing affordable in high-cost areas, see Roberta A. Kaplan & Michael L. Nadler, *Airbnb: A Case Study in Occupancy Regulation and Taxation*, 82 U. CHI. L. REV. DIALOGUE 103, 106-07 (2015). The empirical data does not yet appear available to resolve this debate, but it is worth noting here as yet another example of highly localized impacts from the sharing economy in the real-estate sector.
121. There is a heated debate in New York City regarding Uber’s effect on traffic congestion and reduced speeds in lower Manhattan. See, e.g., Jeremy B. Merrill & Alastair Coote, *Blame Uber for Congestion in Manhattan? Not So Fast*, N.Y. TIMES: THEUPSHOT BLOG (July 27, 2015), <http://www.nytimes.com/2015/07/28/upshot/blame-uber-for-congestion-in-manhattan-not-so-fast.html> (estimating that Uber vehicles “contribute to about 10 percent of traffic in Manhattan, south of Central

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es individuals away from public transportation, leading to more rather than fewer vehicles on the road.¹²² Again, the sharing economy's tendency to increase use intensity can create frictions in transportation infrastructure and potentially across a range of common spaces, given that congestion is a ubiquitous challenge for urban governance.¹²³

Finally, although labor markets tend to be regulated in many important ways at the state and federal level,¹²⁴ the immediate effects of the accelerating shift to the "peer-to-peer" or "gig" economy for personal services is being felt within the scope of city and metropolitan employment markets.¹²⁵ These services also compete directly with brick-and-mortar establishments in the same sector, raising concerns regarding potential detrimental effects on neighborhood character.¹²⁶

2. Sharing and Regulatory Arbitrage

Urban governance seeks to mitigate the localized externalities, but, in doing so, can create market barriers and misallocations that provide further opportunities for innovation.¹²⁷ For every effort by a city government to reduce conges-

Park, during the evening rush hour," but remarking that it is hard to blame Uber for increased congestion); Matt Flegenheimer, *De Blasio Administration Dropping Plan for Uber Cap, for Now*, N.Y. TIMES (July 22, 2015), <http://www.nytimes.com/2015/07/23/nyregion/de-blasio-administration-dropping-plan-for-uber-cap-for-now.html> ("The city has suggested that Uber may be responsible for slower traffic speeds in Manhattan.").

122. See Chris Plano, *Uber, Lyft Have Opportunity to Complement Local Transit Networks*, MOBILITY LAB (Mar. 27, 2015), [http://mobilitylab.org/2015/](http://mobilitylab.org/2015/03/27/uber-lyft-have-opportunity-to-complement-local-transit-networks)

[03/27/uber-lyft-have-opportunity-to-complement-local-transit-networks](http://mobilitylab.org/2015/03/27/uber-lyft-have-opportunity-to-complement-local-transit-networks) (suggesting that with the advent of Uber and Lyft's shared ride services, the cost difference between ride share and public transportation may diminish).

123. See generally Sheila R. Foster, *Collective Action and the Urban Commons*, 87 NOTRE DAME L. REV. 57 (2011) (exploring the range of resources that urban residents share in common and the "commons" challenges this poses, including perennial concerns with congestion).

124. See *supra* note 6.

125. See, e.g., Ian Hathaway, *The Gig Economy Is Real If You Know Where to Look*, HARV. BUS. REV. (Aug. 13, 2015), <https://hbr.org/2015/08/the-gig-economy-is-real-if-you-know-where-to-look> (using San Francisco as an example to argue that while the effects of the gig economy on employment may be difficult to identify in the aggregate, they are evident if you look at the level of individual cities).

126. See *infra* Part III.B.

127. Cf. Sofia Ranchordas, *Does Sharing Mean Caring? Regulating Innovation in the Sharing Economy*, 16 MINN. J. L. SCI. & TECH. 413, 422 (2015) ("Innovation is a difficult phenomenon to understand, promote, and regulate within and beyond the sharing economy.").

tion or manage localized frictions, there may be benefits but also unintended consequences that have their own geography.¹²⁸ It is already well recognized, even at this early stage in the emergence of the sharing economy, that the rapid growth of this sector has been fueled by exploiting gaps in existing regulatory regimes.¹²⁹

This regulatory arbitrage has a distinctly place-based, urban grounding. Many of the emerging platforms that have been most successful have found value in challenging local regulatory regimes.¹³⁰ There are particular challenges

128. As Jerry Frug has remarked regarding the inter-local effects of regulation: “Localities cause unemployment by attracting businesses from neighboring cities; they generate pollution that harms their neighbors as well as themselves; they zone for office complexes and shopping malls that change the lives of employees and customers in other towns; they educate people who move elsewhere in the area; they enact crime control policies that victimize people who live across the border.” Jerry Frug, *Decentering Decentralization*, 60 U. CHI. L. REV. 253, 280 (1993).

129. As a recent report from the Mercatus Center at George Mason University put it fairly starkly, the sharing economy offers “an end run around regulators who are captured by existing producers . . . allow[ing] suppliers to create value for customers long underserved by those incumbents that have become inefficient and unresponsive because of their regulatory protections.” Christopher Koopman, Matthew Mitchell & Adam Thierer, *The Sharing Economy and Consumer Protection Regulation: The Case for Policy Change* 5 (Mercatus Ctr. at George Mason Univ., Mercatus Working Paper, 2014). Whatever one might think of the dismal view of local regulatory structures this comment reflects, it does capture pervasive concerns about the inefficiency of many aspects of urban governance. Similar concerns are present across the political spectrum; a report produced by Shareable and the Sustainable Economies Law Center remarks that “[e]ven when legacy institutions are failing to serve, which is increasingly the case, citizens are not free to share with or produce for each other.” SHAREABLE & SUSTAINABLE ECONOMIES LAW CTR., *POLICIES FOR SHAREABLE CITIES: A SHARING ECONOMY POLICY PRIMER FOR URBAN LEADERS* 4 (2013).

130. Some commentators assert fairly broadly that sharing-economy models violate existing regulation. See, e.g., Bryant Cannon & Hanna Chung, *A Framework for Designing Co-Regulation Models Well-Adapted to Technology-Facilitated Sharing Economies*, 31 SANTA CLARA COMPUTER & HIGH TECH. L.J. 23, 53 (2015) (“Sharing economy companies often violate existing laws and policies.”). This is a characterization that has, in the past, been exacerbated by sharing companies themselves. See, e.g., Julia Verlaine & Jim Brunsten, *Uber Insists ‘Ceci N’Est Pas un Taxi’ in City of Magritte*, BLOOMBERGTECHNOLOGY (Oct. 12, 2014), <http://www.bloomberg.com/news/articles/2014-10-12/uber-insists-cesi-n-est-pas-un-taxi-in-city-of-magritte> (discussing Uber’s claims that it is not a taxi and therefore not subject to taxi legislation in Brussels); David Streitfeld, *Companies Built on Sharing Balk When It Comes to Regulators*, N.Y. TIMES (Apr. 21, 2014), <http://www.nytimes.com/2014/04/22/business/companies-built-on-sharing-balk-when-it-comes-to-regulators.html> (quoting the CEO of Airbnb, who declared to an audience of Airbnb hosts that “[t]here are laws for people and there are laws for business, but you are a new category, a third category, people as businesses” and went on to

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in urban areas, often exacerbated by the current regulatory landscape, which at least some sharing-economy companies are exploiting, particularly in housing and transportation.¹³¹ One need not resolve the cost-benefit question—and it is important to recognize the genuine consumer welfare goals of local regulation—to acknowledge that many local policies tend to distort supply across these and other markets.¹³²

The short-term rental sector, for example, thrives in the shadow of land-use regulation that—generally, for understandable reasons—has a tendency to restrict supply, drive up costs, and segregate housing from employment and amenities.¹³³ Platforms that facilitate accommodation respond to these supply

state that “[a]s hosts, you are microentrepreneurs, and there are no laws written for microentrepreneurs”).

But the legal status of sharing-enterprise activity under existing regulatory regimes is often much less clear cut. Airbnb in New York is a good example. In New York, there is a ban on short-term leases (leases of fewer than thirty days) under the city’s Multiple Dwelling Law and the New York City Administrative Code. See N.Y. Mult. Dwell. Law § 4 (8)(a) (defining a “class A” multiple dwelling as a place for permanent residence purposes); N.Y. COMP. CODES R. & REGS. Tit. 28, § 118.3.2. But there have long been exceptions to this regime. See *City of New York v. 330 Cont’l LLC*, 873 N.Y.S. 2d 9 (N.Y. App. Div. 2009). And even the New York Attorney General’s report of data provided by Airbnb concluded that roughly thirty percent of rentals in New York City fell outside existing restrictions. See SCHNEIDERMAN, *supra* note 120.

131. See Dave Rochlin, *When “Innovation” Means Rule-Breaking*, L.A. TIMES (July 27, 2015), <http://www.latimes.com/opinion/op-ed/la-oe-0727-rochlin-gray-market-20150727-story.html> (offering Uber and Airbnb as examples of how “[s]ome of the highest profile recent start-ups were built to exploit unmet consumer demand created by regulatory restrictions”).
132. Many sharing-economy companies also take advantage of the differences in flexibility and time horizon between local government regulation and technological development. Technology companies have the ability to adapt rapidly as market conditions or consumer demand shift—not only are (non-regulatory) barriers to entry relatively low, but the platforms that drive most sharing-economy enterprises are flexible enough to shift quickly and iterate as conditions require. Local governments have found themselves playing catch-up in seeking to label and constrain sharing companies, as many of those companies have the ability to shift rapidly around newly imposed constraints. For a short discussion of some of the challenges of regulating new technology more generally, see Roger Brownsword & Karen Yeung, *Regulating Technologies: Tools, Targets and Thematics*, in *REGULATING TECHNOLOGIES: LEGAL FUTURES, REGULATORY FRAMES AND TECHNOLOGICAL FIXES* 3, 13-22 (Roger Brownsword & Karen Yeung eds., 2008).
133. Edward L. Glaeser & Joseph Gyourko, *The Impact of Building Restrictions on Housing Affordability*, 9 *ECON. POL’Y REV.* 21, 23 (2003) (arguing “that homes are expensive in high cost areas primarily because of government regulation, that is, zoning and other restrictions on building”); Nicole Stelle Garnett, *Unbundling Homeownership: Regional Reforms from the Inside Out*, 119 *YALE L.J.* 1904, 1940

constraints and spatial disconnects. Moreover, the same zoning that restricts supply simultaneously strengthens the market for renters and homeowners seeking to make all or part of their dwelling available via Airbnb. By segregating uses and often concentrating hotels in downtown areas away from residential neighborhoods, zoning laws create space for short-term rental platforms to thrive when such neighborhoods become attractive to out-of-town visitors.¹³⁴ It is therefore not surprising that seventy-four percent of Airbnb properties are located outside of main hotel districts.¹³⁵

Other particularly local regulatory constraints involve barriers to entry; for example, as a general matter, licensing has long been a contentious issue for its distributional consequences.¹³⁶ Prominent among these regimes are medallion systems, which, by capping the number of taxis, prevent supply from expanding to meet increasing demand for the service.¹³⁷ Such caps also lead to taxis concentrating in high-traffic neighborhoods within a city, leaving other areas with little service.¹³⁸ Historically, these barriers to entry and unmet demand, particularly in certain neighborhoods, contributed to the appearance of “gypsy cabs” that focused in part on underserved locales.¹³⁹ Ride-share providers, like Uber, although they concentrate in high-traffic areas, make a point of emphasizing their presence in areas underserved by taxis.¹⁴⁰

(2010) (reviewing LEE ANNE FENNELL, *THE UNBOUNDED HOME: PROPERTY VALUES BEYOND PROPERTY LINES* (2009)) (“[P]revailing urban land use regulations impose a ‘suburban’ feel on many city neighborhoods by segregating different, presumptively ‘incompatible’ land uses.”).

134. See *supra* notes 58-60 and accompanying text; see also *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 390 (1926) (describing “the creation and maintenance of residential districts, from which business and trade of every sort, including hotels and apartment houses, are excluded” as “the crux of the more recent zoning legislation”).
135. See AIRBNB, *supra* note 59.
136. See, e.g., Aaron Edlin & Rebecca Haw, *Cartels by Another Name: Should Licensed Occupations Face Antitrust Scrutiny?*, 162 U. PA. L. REV. 1093 (2014) (discussing the evidence of consumer pricing effects from occupational licensing). The evidence on broader consumer benefits or harms from licensing appears unsettled. See *id.* at 1098.
137. Katrina Miriam Wyman, *Problematic Private Property: The Case of New York Taxicab Medallions*, 30 YALE J. ON REG. 125, 171 (2013).
138. *Id.*
139. *Id.*
140. See Carl Bialik et al., *Uber is Serving New York’s Outer Boroughs More Than Taxis Are*, FIVETHIRTYEIGHTECONOMICS (Aug. 10, 2015), <http://fivethirtyeight.com/features/uber-is-serving-new-yorks-outer-boroughs-more-than-taxis-are> (“[T]he data we’ve analyzed shows that Uber has a point when it claims that it is doing a better job than taxis in serving the boroughs of New York City outside of Manhattan.”).

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The urban nature of the sharing economy also conversely limits certain forms of regulatory arbitrage that derive from mobility. Often regulatory arbitrage is understood in terms of a business's ability to exit a particular regulatory system and move to one deemed more favorable to its interests.¹⁴¹ However, unlike internet companies and securities issuers, among others, sharing-economy firms are tied to particular local economies. Maintaining operations within these urban locales is necessary for their success. As such, while these companies may try to define and structure themselves in ways that—they hope—will allow them to avoid particular regulations, they cannot as easily escape from particular regulators.¹⁴² This dynamic provides local regulators with some perhaps underappreciated leverage as they negotiate with sharing-economy companies.

While relocating may not be an option, sharing-economy firms have advocated for more favorable regulations at the state level to preempt unfavorable local regulation.¹⁴³ One specific segment of the sharing economy, ridesharing services, has received significant attention at the state level, particularly with regards to liability insurance, a traditional area of state regulation.¹⁴⁴ Yet even

141. See Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416 (1956); see also Neil Weinstock Netanel, *Cyberspace Self-Governance: A Skeptical View from Liberal Democracy Theory*, 88 CALIF. L. REV. 395, 449 (2000) (discussing, with reference to Tiebout, the argument that “regulatory arbitrage—allowing individuals maximum freedom to exit rule regimes not to their liking and to choose new regimes that suit their preferences—yields positive welfare and collective rule benefits across communities”).

142. The fact that federal regulation of the sharing economy has been relatively minimal to date, cf. FED. TRADE COMM’N, THE “SHARING” ECONOMY: ISSUES FACING PLATFORMS, PARTICIPANTS, AND REGULATORS (2015) (inviting comments on competition, consumer protection, and economic issues arising in the sharing economy to inform future regulatory issues), underscores two dynamics. First, the ability of a national regulatory regime to tamp down Tieboutian arbitrage has been largely absent in the sharing economy to date. Conversely, however, the fact that enterprises in the sector are so tied to local economies makes any such movement less attractive.

143. See Reity O’Brien, *Hotel Industry Targets Upstart Airbnb in Statehouse Battles*, CTR. FOR PUBL. INTEGRITY (July 15, 2015), <http://www.publicintegrity.org/2015/07/15/17649/hotel-industry-targets-upstart-airbnb-statehouse-battles>. In Wisconsin, a new state law governing ride share companies specifically prohibits any local regulation of the companies. Mary Spicuzza, *Scott Walker Signs into Law Uber, Lyft Oversight Bill*, MILWAUKEE-WISC. J. SENTINEL (May 2, 2015), <http://www.jsonline.com/news/wisconsin/scott-walker-signs-uber-lyft-oversight-bill-b99492857z1-302302811.html>. Some opponents of the bill argued for the need for more local oversight. *Id.*

144. Adam Nekola, *Ride-Sharing Receiving More Acceptance Than Pushback in State Legislatures*, FISCALNOTE (July 16, 2015), <https://www.fiscalnote.com/2015/07/16/ride-sharing-receiving-more-acceptance-than-pushback-in-state-legislatures> (“Companies such as Lyft and Uber and the like have faced—or are currently facing—legislation in 45 states during 2015 legislative sessions.”). All twenty-six

here, state-level regulation reveals an urban component. Beyond the concern with insurance requirements—which, in all but one case, have been set at the levels already provided by Uber and Lyft¹⁴⁵—these efforts in some cases stem from an attempt to craft regional responses to the regulation of ride sharing and to resolve potential coordination problems among neighboring jurisdictions within a single urban area.¹⁴⁶

The normative valence of the regulatory arbitrage that does occur in the sharing economy context is not at all clear. Regulatory arbitrage occurs throughout the legal system. The tax literature on frictions, for example, highlights the ability of lawyers to design transactional and counseling strategies around the outer bounds of regulatory constraints.¹⁴⁷ There are scholars who find value in testing the limits of existing regulatory constraints not simply for libertarian reasons but also because such boundary conflicts can expose what needs to be changed.¹⁴⁸

states with enacted legislation or advancing legislation set a minimum requirement for liability insurance, a traditional area of state regulation. *Id.*

145. *Id.* The one exception is Nevada. See Thomas Harman, *Ohio Lawmakers Send Governor Ridesharing Regulation Bill*, BESTWIRE (Dec. 14, 2015), <http://www3.ambest.com/ambv/bestnews/newscontent.aspx?AltSrc=62&refnum=174744> (noting that the bill “contains insurance thresholds that have become essential to ridesharing bills since the TNCs and auto insurers negotiated an agreement earlier this spring”).

146. See Freeman Klopott, *Cuomo Seeks Statewide Uber Policy, Undercutting New York City*, BLOOMBERGBUSINESS (Oct. 21, 2015), <http://www.bloomberg.com/news/articles/2015-10-21/cuomo-seeks-statewide-uber-policy-undercutting-new-york-city> (reporting that New York’s Governor, in comments suggesting statewide regulation of Uber, “said a statewide license for companies is needed as they cross municipal borders with fares”); see also HIRSHON ET AL., *supra* note 18, at 30 (discussing regional strategies to regulate ridesharing in metropolitan areas).

Critics of state-level regulation express concerns that while states may pass legislation, they will be unable to provide adequate oversight of ride-share companies. See Michelle Wirth, *Ga. Rolls Out New Regulations for Uber, Lyft and Taxis*, WABE (July 1, 2015), <http://news.wabe.org/post/ga-rolls-out-new-regulations-uber-lyft-and-taxis> (describing an Atlanta Councilman’s concern that “the state won’t be able to oversee taxis or ride-share companies as closely as the city could”).

147. See, e.g., David M. Schizer, *Frictions as a Constraint on Tax Planning*, 101 COLUM. L. REV. 1312 (2001). Jordan Barry and Paul Caron have tied this literature to the sharing economy, see Barry & Caron, *supra* note 6, but with their focus on tax, they did not explore the local geography of this connection.

148. See Andy Vuong, *Colorado First to Authorize Lyft and Uber’s Ridesharing Services*, DENVER POST (June 5, 2014), http://www.denverpost.com/business/ci_25907057/colorado-first-authorize-lyft-and-ubers-ridesharing-services (reporting that the Colorado Governor, in a statement upon signing into law bill authorizing ride-sharing services, “called for Colorado regulators to review rules placed on taxis and limos, questioning whether they’re still appropriate or necessary with the

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But arbitrage has its decided detractors. Victor Fleischer has argued that regulatory arbitrage “exploits the gap between the economic substance of a transaction and its legal or regulatory treatment, taking advantage of the legal system’s intrinsically limited ability to attach formal labels that track the economics of transactions with sufficient precision.”¹⁴⁹ To Fleischer, “the most effective techniques are more pernicious, crafted by lawyers to meet the letter of the law while undermining its spirit, successful only until the government discovers and closes the loophole.”¹⁵⁰

Is the sharing economy a force that disrupts local capture and incumbency protection, as public choice adherents tend to think?¹⁵¹ Or is it a lawless industry that exploits—and often crosses—the outer bounds of local regulation?¹⁵² We need not resolve this normative tension here to note how deeply bound up this arbitrage is with urban governance. As we shall see, this factor, along with the urban geography and sociology it reflects, augurs for a distinctive political economy for this sector, to which we now turn.

B. *Distributed Regulation and Iterative Experimentalism*

An important structural consequence flows from the fact that the primary locus of regulation for the sharing economy is local, which is that such regulation is inherently distributed. That decisions made in Miami or New York or Seattle are not binding on Los Angeles or Duluth or Tempe opens up space for experimentalism that reflects differences in local political, economic, and social

advent of so-called transportation network companies like Lyft and Uber”); cf. EDUARDO M. PEÑALVER & SONIA K. KATYAL, *PROPERTY OUTLAWS: HOW SQUATTERS, PIRATES, AND PROTESTERS IMPROVE THE LAW OF OWNERSHIP* (2010).

149. Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227, 229 (2010); *see also* Jordan M. Barry, *On Regulatory Arbitrage*, 89 TEX. L. REV. 69 (2011). There is a broader literature on “loopholes” that argues that a legitimate lawyering function involves navigating the outer bounds of what is legally permissible. *See, e.g.*, Leo Katz, *A Theory of Loopholes*, 39 J. LEGAL STUD. 1, 1 (2010) (“The exploitation of loopholes is something everyone likes to profess outrage about, and yet I would maintain that it is central to legal practice. Indeed, I do not think it an exaggeration to say that exploiting loopholes is most of what good lawyers spend most of their time doing.”).
150. Fleischer, *supra* note 149, at 229.
151. *See, e.g.*, Koopman et al., *supra* note 129.
152. *See* Frank Pasquale & Siva Vaidhyanathan, *Uber and the Lawlessness of “Sharing Economy” Corporates*, GUARDIAN (July 28, 2015), <https://www.theguardian.com/technology/2015/jul/28/uber-lawlessness-sharing-economy-corporates-airbnb-google> (describing strategies of sharing economy companies as attempts at “corporate nullification” of unfavorable laws, akin to the declarations of Southern governors and legislatures that they were free of federal law during the civil rights era).

conditions.¹⁵³ Hence, notwithstanding the relatively homogenous politics of urban areas in the United States, sharing-economy companies are facing very different landscapes in different local government settings.¹⁵⁴ Different local governments will naturally have varying political and economic incentives to foster or resist sharing. Officials in some cities see more advantage in drawing on the sharing economy as a tool for economic development than disadvantage in the threats that the sector poses to local incumbents.

San Francisco, as is often the case with issues of technology, provides the obvious case study. As the corporate home to companies like Airbnb, Uber, Taskrabbit, MeshLabs, Getaround, and RelayRides, San Francisco has at least nominally embraced this sector.¹⁵⁵ Likewise, the District of Columbia, which operates in a similarly technology-rich region, has over the objection of the local taxi industry instituted relatively conducive ride-share rules.¹⁵⁶ Other cities have found in opening up this sector not only consumer benefits but also a larger municipal branding and economic development strategy in associating with new technology as a way of trying to draw mobile members of the millennial generation.¹⁵⁷

153. There are several factors that are particularly relevant in understanding this variation. On one level, urban *physical* phenomena and the existing geography and infrastructure may influence the variation in approaches and priorities. Social milieu and the zeitgeist of a community is also important—some cities are much more predisposed to be open to a culture of sharing. Cf. DERVOJEDA ET AL., *supra* note 56, at 15 (remarking that in Europe “the culture and features of the local markets” are key determinants of the adoption and success of peer-to-peer platforms). The vagaries of local authority can also influence the disparate nature of city responses to the sharing economy. Finally, perhaps more than anything, of course, the political economy of various localities will shape the resulting regulatory landscape.

154. See HIRSHON ET AL., *supra* note 18; see also Brad Tuttle, 7 *Cities Where the Sharing Economy Is Freshly Under Attack*, MONEY (Jun. 9, 2014), <http://time.com/money/2800742/uber-lyft-airbnb-sharing-economy-city-regulation>.

155. In 2012, Mayor Ed Lee announced to great fanfare a high-profile “Sharing Economy Working Group” to undertake a comprehensive public-private review of city policies around this sector, although the working group has apparently never actually met. See Andrew Dalton, *Mayor Lee’s Sharing Economy Working Group is Hardly Working*, SFIST (May 2, 2014), http://sfist.com/2014/05/02/mayor_lee_sharing_economy_working.php. Mayor Lee has also declared “Lyft Day” in honor of the company and San Francisco name-checked Carma, a car-pooling app, as a solution to congestion anticipated when the Bay Bridge was closed for repairs. See Wogan, *supra* note 39.

156. Aratani, *supra* note 39; see Public Vehicle-for-Hire Innovation Amendment Act of 2012, 60 D.C. Reg. 1717 (Feb. 15, 2013).

157. See HIRSHON ET AL., *supra* note 18, at 7 (discussing how focus on innovation through sharing economy has helped Indianapolis “attract millennials and other groups who utilize these platforms”).

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By contrast, it is fair to say that New York City (along with New York State) has been notably resistant to many aspects of the sharing economy, targeting Airbnb, Uber, and many other companies in a sustained campaign.¹⁵⁸ Until very recently, ride sharing was technically illegal in Miami-Dade, the urban county that includes Miami (although there was little enforcement of this prohibition).¹⁵⁹ Other cities can be arrayed along the spectrum these two coastal poles represent.¹⁶⁰

This distributed nature of the regulation of the sharing economy allows companies—and local governments—to experiment, iterate, and adapt, as they are doing.¹⁶¹ Recent efforts to regulate short-term rentals in New Orleans reflect this dynamic. After short-term rental providers argued that it would be too difficult to revise their platforms in a way that would automatically monitor compliance with local regulations, the city planning commission instead recommended requiring the inclusion of license information and an advertised property's address in listings.¹⁶² While licensing compliance has been low in cities that require it, such an approach, the city's deputy mayor suggested, might generate revenue to enable better enforcement targeted at listings that do not

158. See Tom Randall, *Why Does New York Hate the Sharing Economy?*, BLOOMBERG (Jan. 14, 2014), <http://www.bloomberg.com/news/articles/2014-01-13/why-does-new-york-hate-the-sharing-economy->.

159. Brian Bandell, *Miami-Dade Makes Uber and Lyft Legal*, S. FLA. BUS. J. (May 4, 2016, 7:35 AM), <http://www.bizjournals.com/southflorida/blog/morning-edition/2016/05/miami-dade-makes-uber-and-lyft-legal.html>.

160. See HIRSHON et al., *supra* note 18 (surveying the range of local responses to the sharing economy). For an account of the local taxi industry's ultimately unsuccessful attempt to keep Uber out of Las Vegas, see Johana Bhuiyan, *Here's How Uber Beat the Las Vegas Taxi Industry*, BUZZFEED NEWS (Oct. 4, 2015), <http://www.buzzfeed.com/johanabhuiyan/sex-drugs-and-transportation> (“Much like in the more than 180 other American cities Uber has entered since it was founded in 2009, Vegas's incumbent taxi and limo companies had no intention of sharing. But what made Vegas unique — what made it Uber's biggest challenge yet — was the extent to which local governments were willing to protect the incumbents.”). Uber ultimately gained access by pushing favorable legislation at the state level. See *id.*

161. See *infra* text accompanying notes 272-274 (discussing ongoing negotiations in New York City over regulation of Uber); see also HIRSHON et al., *supra* note 18, at 30 (discussing the “iterative process” through which cities quickly respond with legislation to new sharing economy platforms and later revise legislation as services evolve).

162. Rob Walker, *Airbnb Pits Neighbor Against Neighbor in Tourist-Friendly New Orleans*, N.Y. TIMES (Mar. 5, 2016), <http://www.nytimes.com/2016/03/06/business/airbnb-pits-neighbor-against-neighbor-in-tourist-friendly-new-orleans.html>; CITY PLANNING COMM'N, CITY OF NEW ORLEANS, SHORT TERM RENTAL STUDY at vi (Jan. 19, 2016).

comply.¹⁶³ Although Airbnb is reluctant to alter its platform to monitor compliance with myriad local regulations, it has been willing to collect and remit taxes on behalf of local and state governments. For example, Portland, Oregon legalized short-term rentals in July 2014, requiring homeowners to receive a permit from the city and short-term rental services to collect and remit lodging taxes.¹⁶⁴ Airbnb entered into an agreement with the city to collect taxes,¹⁶⁵ although other platforms refused to do so and have faced fines.¹⁶⁶ At the same time, a few months after the law took effect, an estimated ninety percent of Airbnb hosts had not obtained permits, leading the city to pass a new ordinance requiring platforms to disclose the names and locations of hosts.¹⁶⁷ The city initially avoided penalizing platforms for unlicensed listings¹⁶⁸ and short-term rental platforms resisted reporting requirements, contending that the city is trying to

163. *Id.*

164. Elliot Njus, *Portland Legalizes Airbnb-Style Short-Term Rentals*, OREGONLIVE (July 30, 2014, 7:04 PM), http://www.oregonlive.com/front-porch/index.ssf/2014/07/portland_legalizes_airbnb-styl.html. In a blog post hailing the legislation, an Airbnb lobbyist noted that the company already planned to advocate for an expansion of the types of rentals permitted. *Id.*

165. *See In What Areas is Occupancy Tax Collection and Remittance by Airbnb Available?*, AIRBNB, <https://www.airbnb.com/help/article/653> (last visited Aug. 23, 2015) (providing details of tax collection process in different jurisdictions).

166. Elliot Njus, *Portland Fines Vacation Rental Website HomeAway Over User's Unpaid Lodging Taxes*, OREGONLIVE (June 3, 2015, 3:31 PM), http://www.oregonlive.com/front-porch/index.ssf/2015/06/portland_fines_vacation_rental.html. In late 2015 the City of Portland filed a lawsuit against VRBO and HomeAway.com related to issues including the failure to collect the lodging tax. Editorial, *Dedicate Airbnb Lodging Taxes for Housing but Better Data is Needed: Editorial Agenda 2015*, OREGONIAN (Dec. 15, 2015), http://www.oregonlive.com/opinion/index.ssf/2015/12/dedicate_airbnb_lodging_taxes.html.

167. Mike Francis, *Portland Council Vote Sets Stage for Showdown with Airbnb, Short-term Rental Brokers*, OREGONLIVE (Jan. 21, 2015, 4:29 PM), http://www.oregonlive.com/front-porch/index.ssf/2015/01/portland_council_vote_sets_sta.html. In February 2015, Portland adopted new zoning regulations governing what the city terms "Accessory Short-Term Rentals." PORTLAND, OR. ZONING CODE § 33.207 (2015). "A basic definition for a City of Portland ASTR is where an individual or family resides in a dwelling unit and rents bedrooms to overnight guests for less than 30 days." *Accessory Short-Term Rental Permits*, CITY OF PORTLAND DEV. SERVS., <http://www.portlandoregon.gov/bds/65603> (last visited Apr. 26, 2016).

168. Francis, *supra* note 167. The City's Revenue Division took a "graduated approach to short term rental enforcement," according to its director, extending the deadline for permits and threatening the platforms with penalties if hosts did not obtain permits by the new deadline. Anna Walters, *City of Portland Threatens Airbnb and Rivals with \$503,000 in Fine*, WILLAMETTE WK. (Mar. 19, 2015), <http://www.wweek.com/portland/blog-32979-city-of-portland-threatens-airbnb-and-rivals-with-503000-in-fines.html>.

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“deputize” them to enforce local laws and to violate the privacy of users.¹⁶⁹ This regulatory response to short-term rentals in these and other cities continues to evolve.

In the ride share context, cities have experimented with a range of regulatory requirements and ride share companies have altered their operations in some locales. After initially threatening to leave Kansas City in response to new regulations, Uber eventually reached an agreement with the city council.¹⁷⁰ The council reduced proposed fees for individual drivers, and Uber agreed to provide background check information on drivers, which it originally refused to share for privacy reasons. Uber has long resisted attempts by local government to require drivers to undergo fingerprint background checks.¹⁷¹ Houston and New York are the only cities in which Uber operates that require such checks.¹⁷² In contrast, Uber left the San Antonio market in response to such a requirement, leading the city council to revise the ordinance and make such checks optional, with riders then able to choose a driver who has undergone a fingerprint check.¹⁷³ Despite its public opposition, Uber has been studying potential finger-

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169. Steve Law, *City, Short-Term Rental Hosts Face Off*, PORTLAND TRIB. (Jan. 27, 2015), <http://portlandtribune.com/pt/9-news/248329-116358-city-short-term-rental-hosts-face-off>.
170. Lynn Horsley, *Uber, Kansas City Get Past Hostilities to Reach Accord*, KAN. CITY STAR (April 23, 2015), <http://www.kansascity.com/news/politics-government/article19340331.html>.
171. Michael Theis, *As It Fights Fingerprints, Uber Rolls Out More Virtual Lobbying With New Ads*, AUSTIN BUS. J. (Nov. 10, 2015), <http://www.bizjournals.com/austin/news/2015/11/10/as-it-fights-fingerprints-uber-rolls-out-more.html>; see also Bandell, *supra* note 159 (discussing fingerprinting battle in Miami).
172. Theis, *supra* note 171; see also *Fingerprint Background Checks*, UBER HOUS., <http://www.driveuberhouston.com/fingerprint-background-check> (last visited Mar. 4, 2016) (discussing fingerprint background check required for TNC license); *TLC License Checklist*, UBER N.Y., <http://driveubernyc.com/tlc-license-checklist> (last visited Mar. 4, 2016) (discussing fingerprinting administered by New York’s Taxi and Limousine Commission). But Uber continues to threaten to leave Houston if the city council fails to repeal regulations. See Dug Begley, *Uber Threatens to Leave Houston*, HOUS. CHRON. (May 2, 2016, 2:51 PM), <http://www.chron.com/news/politics/houston/article/Uber-threatens-to-leave-Houston-7379011.php>.
173. Katherine Blunt, *Uber Plans for San Antonio Expansion*, SAN ANTONIO EXPRESS-NEWS (Jan. 6, 2016), <http://www.expressnews.com/news/local/article/Uber-plans-for-San-Antonio-expansion-6739238.php>. As of December 16, 2015 “eighty-six drivers had applied to complete the city’s fingerprint-based check, 37 of whom had completed it.” *Id.* Those who complete the checks can share that information in their profiles on the companies’ apps. *Id.*

print background checks and is testing one service in California.¹⁷⁴ This effort suggests that, despite its frequent threats to abandon cities in response to new regulations, the company is willing to broker compromises rather than abandon lucrative urban markets.

Nonetheless, Uber and Lyft both recently abandoned the Austin market in response to a December 2015 ordinance that requires ridesharing drivers to undergo a “fingerprint-based criminal background check.”¹⁷⁵ The city called an election on May 7, 2016 on a petition seeking to repeal the ordinance and replace it with a provision expressly prohibiting fingerprinting.¹⁷⁶ Despite a nearly \$9 million campaign funded by Uber and Lyft, 56% of voters rejected the petition, preserving the December 2015 ordinance.¹⁷⁷ After Uber and Lyft followed through two days later on their promise to leave the Austin market,¹⁷⁸ a few smaller ride sharing companies, GetMe, Wingz, and Fare, entered to fill the void.¹⁷⁹ In addition, an Austin-based non-profit Transportation Network Company, RideAustin, which proposes to pay drivers a higher percentage of fares,¹⁸⁰ began providing rides that June.¹⁸¹ RideAustin, which has embraced the re-

174. Ellen Huet, *Uber Publicly Resists Fingerprinting But Is Quietly Testing it On Some Drivers*, FORBES (Oct. 14, 2015), <http://www.forbes.com/sites/ellenhuet/2015/10/14/uber-publicly-resists-fingerprinting-its-drivers-but-is-quietly-testing-it-live-scan>.

175. Austin, An Ordinance Amending City Code Chapter 12-3 Relating to Transportation Network Companies (TNCs) and Terminating TNC Operating Agreements, <http://www.austintexas.gov/edims/document.cfm%3Fid=245769> (last visited June 27, 2016).

176. Mike McPhate, *Uber and Lyft End Rides in Austin to Protest Fingerprint Background Checks*, N.Y. TIMES (May 9, 2016), <http://www.nytimes.com/2016/05/10/technology/uber-and-lyft-stop-rides-in-austin-to-protest-fingerprint-background-checks.html>. A local law in Austin enables citizens to circumvent the city council through a petition process. Office of the City Clerk, Austin, Texas, Petitions, <https://www.austintexas.gov/department/petitions> (last visited June 9, 2016). The city council then has the option to either adopt the petition ordinance or call an election on the ordinance. *Id.*

177. *Id.*

178. *Id.*

179. Ellie Kaufman, *Uber And Lyft Abandoned Austin, But It Could Be a Blessing in Disguise for Ride-Sharing Apps*, QUARTZ (June 7, 2016), <http://qz.com/699458/uber-and-lyft-abandoned-austin-but-it-could-be-a-blessing-in-disguise-for-ride-sharing-apps/>.

180. FAQ, RIDEAUSTIN, <http://www.rideaustin.com/faq/> (last visited June 27, 2016).

181. *Id.* Another group also has also sought to fill the void: *Arcade City Austin / Request a Ride*, a Facebook group with over 30,000 members, offers a less technologically-advanced peer-to-peer ride sharing service. Fitz Tepper, *How a 30K-Member Facebook Group Filled the Void Left by Uber and Lyft in Austin*, TECHCRUNCH (June 7, 2016), <http://techcrunch.com/2016/06/07/how-a-30k-member-facebook-group-filled-the-void-left-by-uber-and-lyft-in-austin/>. Potential riders post requests and drivers respond with a price, estimated time of arrival, and phone number to

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quired background checks and pays the fee on behalf of drivers, asserts that its model “will be how cities of the future will embrace the ride sharing movement.”¹⁸² RideAustin’s founders drew upon the expertise of the Austin technology community, a desire to keep more of the profit from ride sharing in the community (and particularly in the pockets of drivers), and the familiarity with ride sharing created by Uber and Lyft. This effort may be replicated in other urban communities looking to reimagine the peer-to-peer economy through forms tailored to particular local regulatory regimes and markets.¹⁸³

It is likely that, over time, regulatory regimes and enforcement efforts will continue to evolve as cities learn from their own experiences and those of their peers.¹⁸⁴ At the same time, it is also likely that, as Airbnb has done in some jurisdictions with the collection of lodging taxes, and as Uber has done in Houston and New York with fingerprint requirements, sharing-economy firms will adjust their business models to broker compromises and continue operation in certain desirable urban markets.¹⁸⁵ Different localities will reach different equi-

confirm the pickup. *Id.* The group was created by Arcade City, a new “decentralized” ridesharing service that, while it will match drivers through an app, allows for directly payments by riders to their drives, purporting, perhaps unrealistically, to “cut out the corporate middlemen – and make government regulations obsolete.” *Dear Austin*, ARCADE CITY, <http://arcade.city/> (last visited June 27, 2016).

182. *About Us*, RIDEAUSTIN, <http://www.rideaustin.com/about-us/#overview> (last visited June 27, 2016); see also Michael Theis, *Nonprofit Uber Alternative Springs from Austin Tech Minds*, AUSTIN BUS. J., (May 23, 2016), <http://www.bizjournals.com/austin/blog/techflash/2016/05/nonprofit-uber-alternative-springs-from-local-tech.html>.
183. It also bears similarities to the suggestion some have made of local communities developing driver-owned ride sharing co-ops. See *infra* notes 258 and accompanying text.
184. See, e.g., Lynn Thompson, *Seattle Approves New Regulations That Satisfy Ride-share and Taxi Drivers*, GOVERNING (July 15, 2014), <http://www.governing.com/news/headlines/mct-seattle-new-rideshare-rules.html> (quoting Seattle City Council member who, discussing new ride share regulation, remarked that “[t]his landscape will continue to change. We will continue to check back to make sure the ordinance matches up with safety, with consumer protection and with advancing transportation options in the city”). The marketing manager of Bridj has similarly remarked, “In my opinion a one size fits all regulation won’t suffice as the Bridj model is unique to our service and technology companies will continue to innovate in ways that regulators can’t foresee or plan for.” Nick DeLuca, *What’s Next for Ride-Shares Like Uber, Lyft & Bridj in Cambridge?*, BOSTINNO (May 19, 2015), <http://bostinno.streetwise.co/2015/05/19/uber-boston-cambridge-public-hearing-on-ride-share-services>.
185. It remains unclear why sharing-economy companies, to the extent that they have begun to develop national market strength—and the regulatory influence that can come from that position—have not worked harder to preempt local regulation. After all, it is a traditional gambit of regulated industries facing conflicts over

libria with sharing enterprises, but over time, as these approaches take effect and are evaluated, variation may decrease.¹⁸⁶

In parsing this distributed regulatory landscape, it is worth examining the comparative advantages and disadvantages that local governments bring to the exercise.¹⁸⁷ It is a worn truism that local governments are natural engines of experimentalism,¹⁸⁸ and local governments are in many ways better “laboratories” than their state counterparts so valorized in the federalism literature.¹⁸⁹ This is because local governments have comparative advantages in functioning—when they function well—to aggregate local preferences and channel localized information into governance.¹⁹⁰

Localist experimentalism is also particularly well suited to conditions of rapid change.¹⁹¹ Local governments and even the industry itself know relatively

inconsistent obligations to seek to elevate to a higher level of regulatory authority. Uniformity, all things considered, can bring certainty to the playing field. One reason why sharing-economy companies may be comfortable subjecting themselves to the vagaries of local regulation is that they appear to be winning—in some way—the majority of threshold, existential fights that have emerged with local governments.

186. There are certainly well-recognized disadvantages to local experimentalism, particularly when there are common regulatory issues cutting across cities or where the most efficient regulatory solution requires little variation to derive. This is a fair point, although it is still sufficiently early in the development of the sharing economy that iterative experimentalism seems likely still to add value.
187. To be clear, we are not arguing as a normative matter that urban governments are the right or best level of our federal structure to situate the primary regulation of the sharing economy. Rather, we are simply foregrounding the fact that, given the urban nature of the business models involved and the inextricable local regulatory arbitrage involved in many sharing enterprises, this federalist/localist landscape presents a reality that must be confronted on its own terms.
188. For a general argument in favor of structural devolution as a strategy for fostering localized and responsive solutions in governance, see Michael C. Dorf & Charles Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267 (1998). Some scholars have disaggregated the local in the discourse on experimentalism, highlighting the differences between local and more general federalist state-level dynamics. See, e.g., Richard Briffault, “What About the ‘Ism?’” *Normative and Formal Concerns in Contemporary Federalism*, 47 VAND. L. REV. 1303 (1994).
189. R.A. Lenhardt, *Localities as Equality Innovators*, 7 STAN. J. C.R. & C.L. 265 (2011); see also Stacy Laira Lozner, Note, *Diffusion of Local Regulatory Innovations: The San Francisco CEDAW Ordinance and the New York City Human Rights Initiative*, 104 COLUM. L. REV. 768 (2004).
190. See HIRSHON ET AL., *supra* note 18, at 27-29 (discussing various ways in which city governments have engaged the public as general and particular stakeholders in drafting regulations in response to the sharing economy).
191. Paul Diller notes a particularly relevant localist advantage: cities are structurally predisposed to innovate, given their typically unicameral legislatures and lack of

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little at this point about the nature of the sharing economy even as it continues to metastasize, making it a paradigm example of regulation under uncertainty.¹⁹² A national regime, even as a floor, would stifle the opportunity to craft nuanced responses to highly localized disruptions. Moreover, to the extent there is value in the innovation that this sector brings to urban areas, it is equally worthwhile to encourage creativity and responsiveness in regulatory approaches.¹⁹³ As Benjamin Barber recently argued, in our current political environment, local governments have been a source of particular innovation on critical policy areas, tapping into global networks of pragmatic local policymakers.¹⁹⁴

Local governments are also fairly well adapted to regulate the specific areas where the sharing economy is having its greatest impact.¹⁹⁵ Local governments have varied authority, but zoning, local transportation, licensing, and the like

supermajority requirements. *See generally* Paul A. Diller, *Why Do Cities Innovate in Public Health? Implications of Scale and Structure*, 91 WASH. U. L. REV. 1219 (2014).

192. *Cf.* Matthew C. Stephenson, *Information Acquisition and Institutional Design*, 124 HARV. L. REV. 1422, 1427 (2011) (“Most government decisions must be made under conditions of substantial uncertainty, in which the optimal choice depends on information about consequences that can never be known with anything approaching certainty.”).
193. Indeed, the distributed nature of the regulation of the sharing economy can allow for real creativity. In the context of the short-term rental market, for example, Stephen Miller has proposed calibrating existing regulatory interests and new entrants through a system of “transferable sharing rights” or TSRs. Miller, *supra* note 3, at 48-52. These TSRs would allow owners to purchase the right to engage in sharing, paying a fee to offset the negative externalities and foregone tax revenue tied to the short-term rental. *Id.* This mechanism, which builds on existing regulatory tools like impact fees and transferable development rights, highlights the opportunity for creativity in a distributed regulatory environment. Whether it would actually work is a question amenable to answer in practice, but there would be relatively little cost—and some clear advantages—for a handful of local governments to try.
194. *See generally* BENJAMIN R. BARBER, *IF MAYORS RULED THE WORLD: DYSFUNCTIONAL NATIONS, RISING CITIES* (2013). Indeed, the localist strain of experimentalism is currently operating in an environment of fairly active policy diffusion. *Cf.* GRAEME BOUSHEY, *POLICY DIFFUSION DYNAMICS IN AMERICA* (2010). As local governments innovate in various policy spheres, they have the ability to communicate and learn from each other. There is a robust network of direct contacts and intergovernmental organizations that facilitate horizontal policy dialogue; this is already evident in responses to the sharing economy. *Cf.* Daniel Rodriguez & Nadav Shoked, *Comparative Local Government Law in Motion: How Different Local Government Law Regimes Affect Global Cities’ Bike Share Plans*, 42 URB. L.J. 123 (2014).
195. *See* Rauch & Schleicher, *supra* note 3, at 37.

are traditionally strong areas of local regulatory capacity.¹⁹⁶ Whatever disabilities local governments suffer in other regulatory arenas,¹⁹⁷ they tend to have the tools they need to respond to the consequences of the sharing economy.

Finally, local governments are particularly well suited to adapt to an industry sector that is so paradigmatically steeped in data. Local governments inevitably operate through highly place-based information, such as police reports, property tax records, building code inspections, school district data, and others. That experience gives local governments an advantage in working out the balance between innovation and consumer protection. Given that local governments operate at a scale that can, even in the largest cities, capture individual and neighborhood dynamics, they can leverage data in highly particularized ways.¹⁹⁸

As with all aspects of localism, however, there are downsides to many elements of what drives this type of experimentalism. As to the deliberative ideal,

196. *Id.* There is a predicate legal-structural underpinning to the distribution of authority over the sharing economy that must be acknowledged in evaluating the vertical division of regulatory responsibility. Because our legal system tends to task local governments with oversight on land use, transportation, licensing, and related topics, that is the level of government to which we turn when local frictions emerge. If we had a different distribution of authority—and it is easy to forget that it was not too long ago that policymakers seriously contemplated, for example, a national land use planning system, see Jerold S. Kayden, *National Land-Use Planning in the United States: An Idea Whose Time Has Never Come*, 3 WASH. U. J. L. & POL'Y 445 (2000) (discussing efforts up to the 1970s to enact national land use law), we would likely see a different set of legal actors shaping the sharing economy.

In this respect, we can compare some international counter-examples, looking to places where there is less of a legal culture of localism and hence more pressure to respond to these new entrants at a national political level. France provides a telling case study here. In the summer of 2015, the French version of Uber, called UberPop, sparked significant protests, which led to a clampdown and even the indictment of some company officials. See James Titcomb, *Uber Suspends Controversial UberPop Service in France after Executives Arrested*, TELEGRAPH (July 3, 2015), <http://www.telegraph.co.uk/technology/news/11715706/Uber-suspends-controversial-UberPop-service-in-France-after-executives-arrested.html>. This regulation was national and now the conditions in Paris attain to France as a whole.

197. See generally GERALD E. FRUG & DAVID J. BARRON, *CITY BOUND: HOW STATES STIFLE URBAN INNOVATION* (2008); see also Nestor M. Davidson, *Localist Administrative Law*, 126 YALE L.J. (forthcoming 2017) (manuscript at 12-15) (draft on file with authors) (discussing the breadth and depth of local regulatory authority over land, the environment, business, employment, consumer protection, and public welfare).

198. See *infra* Part IV.

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for example, the risk of exclusion is always a concern.¹⁹⁹ This can be because metropolitan regions are so fragmented, often locating decision-making where the external effects of policies on other constituencies are not taken into account. It can also be because the scale of local governments makes them particularly vulnerable to capture by concentrated interests. Thus, the efficiency and democracy-reinforcing aspects of local preference aggregation must be balanced against recurring representational deficits. Salience and the scale of governance can give too much veto power to concentrated local interests, and incumbency and capture can be endemic. Thus, the political economy of parochi-parochialism often privileges local incumbents.²⁰⁰

The risks of incumbency and local capture have long been staples of urban theory.²⁰¹ The intensification of the exchange of goods that sharing platforms bring in their wake renders these activities more visible, leading, perhaps inevitably, to heightened opposition from incumbent industries as well as heightened attention to inefficiencies in existing regulation. One reason why regulatory arbitrage has been so effective for sharing enterprises—and has sparked such strong political reaction—is precisely that these companies are disrupting some of the most entrenched sectors of urban economies.

The sharing economy, as a reaction to local capture, benefits also from the ability of these enterprises to energize new constituencies. In the sharing economy, many (although not all) actual providers of goods and services—and certainly, so far, most consumers—are individuals operating often within the same cities, and in some cases neighborhoods, in which they also live. In contrast with the more corporate, national companies that provide platforms, individuals participating in the sharing economy will tend to see local regulation as more salient (and cannot as easily exit a particular regulatory regime).²⁰² They also may experience these regulations not only as participants in the sharing economy but also as residents and in some cases homeowners for whom the regulations purportedly serve other interests.²⁰³ As sharing enterprises inevita-

199. See Heather K. Gerken, *Foreword: Federalism All the Way Down*, 124 HARV. L. REV. 4 (2010).

200. See Rauch & Schleicher, *supra* note 3, at 4.

201. Adam Smith observed that denser locales and the specialization they produce lead to a greater likelihood that those working in a specific trade will combine together in some fashion. See SMITH, *supra* note 61, at 125. For Smith this inevitably led to the incorporation of even “[t]he most insignificant trades carried on in towns.” *Id.* at 125. Seemingly foretelling the tensions in large cities between sharing economy firms and incumbent providers of competing services, Smith deemed inevitable a “jealousy of strangers” and actions to stifle competition from new entrants to the market. *Id.*

202. See Walker, *supra* note 162 (discussing Airbnb’s reluctance to become deeply involved in local regulations, leaving compliance to users of the platform).

203. This dynamic may contribute to the efforts of some sharing-economy participants to advocate for specific regulations that would legalize their operation and weed out bad actors. For example, in New Orleans, a group of residents who rent out

bly clash with local incumbents in the sectors in which they are gaining market strength, the salience of local consumer-as-producer interests changes the local political economy.²⁰⁴

In sum, local experimentalism has defined the early regulatory response to the sharing economy, which has had an impact on the emerging economy. Creative policy responses and difficult compromises are generating equilibria that provide new learning for other local governments, and sharing enterprises are forging paths within this balancing exercise. The ferment that this has begun to generate, however, is not remaining strictly cabined within the sharing economy, a subject to which we now turn.

III. THE SHARING ECONOMY AS AN AGENT OF URBAN TRANSFORMATION

It is clear that the sharing economy is being shaped and refined through the distributed clash of local regulatory structures, but the dialectic between this sector and cities critically runs both ways. The sharing economy is also shaping cities themselves—how they regulate beyond the sharing economy and how they are built and experienced. As this Part will argue, the sharing economy is generating new models of local regulation and political participation and is changing patterns of development and mobility. And, while some fear threats to local neighborhoods, an underappreciated potential exists for the sharing economy to foster social capital.

A. *Changing the Urban Landscape*

As with urban governance, the sharing economy is already changing the economic and physical character of urban areas. This shift in how businesses operate, as well as how people interact with cities, will yield a decidedly new urban geography.

short-term rentals has sought new regulations to avoid problems they attribute in part to antiquated and poorly enforced existing regulations. See Robert McClendon, *The Answer to Short-Term Rental Problems is to Legalize and Regulate*, *Group Says*, TIMES-PICAYUNE (Jun. 4, 2014), http://www.nola.com/politics/index.ssf/2014/06/the_answer_to_short-term_renta.html. In addition, this dynamic might complicate one component of William Fischel's homevoter hypothesis, which contends in part that the increase in interurban commuting strengthened the role of homeowners in local politics as "commuters vote their homes, not their jobs." WILLIAM A. FISCHEL, *THE HOMEVOTER HYPOTHESIS* 14 (2001). If a not-insignificant share of one's employment income comes, in part, from renting out rooms in one's house or otherwise participating in the sharing economy, the considerations that shape an individual's assessment of local ordinances may become more complex.

204. As we will see below, this has the potential to change not only the regulation of the sharing economy, but also urban governance more broadly. See *infra* Part IV.A.

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1. Economic Transformation

The sharing economy directly affects the urban economy at both the neighborhood and city-wide levels. At the neighborhood level, the short-term rental segment of the sharing economy, by bringing a sudden influx of visitors eager to experience a new place in a neighborhood,²⁰⁵ can also benefit local restaurants and other commercial uses.²⁰⁶ In most cities, only a small number of vibrant neighborhoods, already attractive to tourists, are likely to see a significant volume of transient visitors.²⁰⁷ However, the number of short-term rentals necessary to have a significant effect on local businesses is likely to be fewer than the number that might, as some have asserted, drive up rental prices in a neighborhood (and drive out long-term residents).²⁰⁸ Put another way, while the total percentage of short-term rental units in an area may be too insignificant to affect rental prices at the neighborhood level, the visitors using those units—tourists eager to experience the neighborhood in which they are staying—are much more likely to eat at local restaurants, shop at local stores, and drink at local coffee shops and bars than are normal residents.²⁰⁹ While it may be too early (or too difficult) to measure these effects, to the extent that these and other effects are plausible, they hint at the likelihood that different local stakeholders will have different views on the nature of the sharing economy and its benefit or burden at the neighborhood level.

Sectors of the sharing economy beyond short-term rentals are also changing neighborhood economies. Sharing economy platforms can lower the costs of entry (and the risks of innovation) for new businesses, making it easier for them to start up, grow, and, in some cases, eventually transform into brick-and-mortar establishments. To this end, Storefront, a platform that enables business to “find and rent short term retail space,” emphasizes how it makes retail more

205. See *supra* notes 59-60 and accompanying text (discussing desire of Airbnb users to stay in particular city neighborhoods and live like locals).

206. See *supra* note 115.

207. Stephen Miller contends that particularly popular areas may demand “special attention” to the extent that they “define a city’s character” and the displacement of local residents may lead them to lose their uniqueness. Miller, *supra* note 3, at 35.

208. See *supra* note 120; see also Laura Kusisto, *Airbnb Pushes Up Apartment Rents Slightly, Study Says*, WALL ST.: J. DEVS. (Mar. 30, 2015, 2:57 PM), <http://blogs.wsj.com/developments/2015/03/30/airbnb-pushes-up-apartmen-rents-slightly-study-says> (reporting study that showed Airbnb “pushes up rents slightly in some major cities” including increases of \$6 a month in New York City and \$19 a month in San Francisco for a one-bedroom unit); Cohen & Sundararajan, *supra* note 3 (discussing the potential effect of the concentration of out-of-town visitors on neighborhood restaurants).

209. See *supra* note 60 and accompanying text.

accessible through reduced costs and quicker setup.²¹⁰ Similarly, new enterprises in the locally-crafted “maker economy,” which has brought small-scale manufacturing into urban neighborhoods, often rely upon shared space and equipment in their early stages.²¹¹ In these ways, the sharing economy can enable the development of new local businesses by easing entry into difficult urban markets.

By reducing the costs of entry and enabling certain information spillovers, the sharing economy also facilitates forms of innovation that drive broader urban economic growth.²¹² Relatedly, the ready availability of flexible, part-time work may provide a kind of insurance for individuals that encourages risk-taking and innovation.²¹³ Similar arguments have been made in support of social security²¹⁴ and the Affordable Care Act. In addition, by efficiently providing city residents with a range of goods and services that they would otherwise need to expend time and effort obtaining or doing on their own, the sharing economy has the potential to make urban workers more productive generally.²¹⁵ Finally, the extent to which cities are regulated and designed in a way that supports a thriving sharing-economy infrastructure—and the access to consumption goods and services it enables—is likely to have a substantial effect on the location decisions of residents.²¹⁶ Prominent urban economists have ar-

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210. *About Us*, STOREFRONT, <https://www.thestorefront.com/about> (last visited Apr. 26, 2016) (comparing the average cost of \$98,000 to open a “traditional brick and mortar store” with the \$2,000 cost of a pop-up store via Storefront and the average of sixty days to set up a retail store with twelve days to rent space via Storefront).
211. See Anthony Flint, *For Journalists, Confronting Equity*, LINCOLN INST. LAND POL’Y (Apr. 2015), <http://www.lincolninstitute.edu/news-events/at-lincoln-house-e-newsletter-archive/issue/394056/at-lincoln-house-april-2015> (discussing the maker economy and small-scale manufacturing sites with shared space, equipment, and tools); see also Clive Thompson, *Why Your Library May Soon Have Laser Cutters and 3-D Printers*, WIRED (Sept. 2, 2014), <http://www.wired.com/2014/09/makerspace> (discussing the trend of “makerspaces” within public libraries).
212. See *supra* Part I.A (discussing the relationship between innovation and economic growth).
213. We are indebted to David Schleicher for suggesting this point.
214. See John Infranca, *Safer than the Mattress? Protecting Social Security Benefits from Bank Freezes and Garnishments*, 83 ST. JOHN’S L. REV. 1127, 1146 n.74 (2009) (citing sources).
215. Cf. Puga, *supra* note 44, at 212-23 (discussing productivity gains from labor specialization in dense markets). There is, however, also a risk that an increase in shared consumption of goods and services will lead to lost sales revenue in the local economy. See HIRSHON ET AL., *supra* note 18, at 11.
216. See Glaeser et al., *supra* note 85, at 135-36 (arguing that the “future of cities depends on the ability of particular urban areas to provide attractive places for increasingly rich workers”); Eric Jaffe, *The Real Source of America’s Urban Revival*, CITYLAB (Feb. 23, 2016), <http://www.citylab.com/work/2016/02/urban-revival-america->

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gued that traditional dense cities “will only succeed when they provide amenities that are attractive to high human capital residents.”²¹⁷ The sharing economy is fast becoming a primary means through which urban residents access desired goods and services, transforming urban economies.

There remains the risk that sharing-economy platforms siphon money out of the local economy that would otherwise remain within it. Platforms like Uber charge a commission for the service of linking sellers and buyers. In the case of Uber, this commission ranges between five and twenty percent of the fare.²¹⁸ Recognizing this dynamic, some have suggested the development of local driver-owned co-ops, which would keep this share of the fare within a community of local drivers.²¹⁹ It is also possible, however, that provision and use of ride-sharing will keep more money within a given community as, rather than expending a significant sum of money to buy a private vehicle produced hundreds or thousands of miles away, local citizens pay their neighbors to provide rides. Short-term rentals might keep money within a community, in contrast to large chain hotels that shift money out of the community. It is beyond the scope of this Article, and likely too early in the sharing economy’s development, to determine definitively whether the sharing economy will spur local economic growth through income-substitution or will stifle that growth through an increase in the importing of goods and services.²²⁰ In addition, it is likely that this dynamic will differ across segments of the sharing economy and across cities depending upon other components of their economies.

All of this economic transformation is likely to have mixed distributional consequences, and attention to those consequences is important. On the one hand, the sharing economy can be a boon to a variety of micro-entrepreneurship that can broaden participation in the economy and open new markets to many traditionally shut out of traditional avenues.²²¹ Thus, market

college-educated-2000-2010/470415 (discussing research identifying desire for service amenities as a key influence on the decision to reside in downtown areas).

217. *Id.* at 137.

218. *Drive with Uber*, UBER, <https://www.uber.com/driver-referral/qf93d> (last visited Mar. 6, 2016) (“[A] standard percentage of your fares (ranging from 5 to 20%) goes to getting you more riders, better tools, and legal advocacy to keep your business running. A \$10-per-week service fee is automatically deducted to cover costs of the Uber phone and data plan. You keep the rest.”).

219. See *infra* notes 258-259 and accompanying text.

220. See Richard C. Schragger, *Rethinking the Theory and Practice of Local Economic Development*, 77 U. CHI. L. REV. 311, 335 (2010) (discussing income-substitution theories of city growth, which posit, in part, that “[a] city can grow by providing more goods and services for itself, and by preventing money and resources from flowing outside the local economy”).

221. See Dyal-Chand, *supra* note 3, at 246 (arguing that “individuals renting rooms, back seats, or specialty equipment are microentrepreneurs operating tiny, often part-time, businesses”).

information that had been hard to obtain has become a core commodity of the sharing economy, enabling much greater access with a lower cost of entry.²²² On the other hand, the lack of formal protections associated with employment status in the sharing economy carries risks of power imbalances between sharing platforms and the producers who provide the goods and services.²²³ And disruption of traditional incumbent providers—whether in transportation, accommodations, personal services, or other sectors—always creates those who benefit and those whose livelihoods are threatened. Whether the sharing economy becomes a greater engine of economic democratization in urban economies or yields, on balance, more disempowerment and dislocation remains to be seen.

2. Physical Transformation

The sharing economy is also rippling out to change the character of neighborhoods and the built environment. Increased reliance on goods and services provided by individuals through the sharing economy—rather than through traditional brick-and-mortar establishments—may alter the composition of neighborhoods and the vitality of city streetscapes. Jane Jacobs emphasized the importance of vibrant city streets and linked diverse neighborhood commerce to other forms of urban diversity: “wherever we find a city district with an exuberant variety and plenty in its commerce, we are apt to find that it contains a good many other kinds of diversity also, including a variety of cultural opportunities, variety of scenes, and a great variety in its population and other users.”²²⁴

It is unlikely that a similar link—between commercial variety and “other kinds of diversity”—exists in the context of the sharing economy. The link Jacobs draws depends not just on physical proximity but also on the fixed physical location of the retail commerce she discusses.²²⁵ Physical proximity of fixed storefronts is also a crucial component of certain accounts of the agglomeration benefits that accrue from commercial districts. Peer-to-peer service providers that substitute for equivalent brick-and-mortar businesses lack this physical presence, although there are some exceptions, such as Storefront.²²⁶

222. *Id.* at 258-59.

223. *See id.*

224. JACOBS, *supra* note 70, at 148 (“The same physical and economic conditions that generate diverse commerce are intimately related to the production, or the presence, of other kinds of city variety.”).

225. This is the central theme of Jacobs’ work, which emphasizes the vibrancy of particular neighborhoods and streets marked by the presence of people within a fixed space at different times of day; small and short city blocks; a mingling of buildings of various sizes, ages, and conditions; and dense concentrations of people. *Id.* at 150-51.

226. *See supra* note 210 and accompanying text.

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Beyond individual neighborhoods, the sharing economy is transforming how individuals move across space within cities as well as the relationship between the home and its surrounding neighborhood. The transportation sector of the sharing economy, including ride-share services, as well as shared private commuter buses and carpool services, has the potential to provide improved transportation in currently underserved areas.²²⁷ By improving transportation in areas lacking strong public transportation options, the sharing economy will help open up new neighborhoods to development.²²⁸ Sharing-economy transportation providers can also complement public transportation infrastructure, solving the “first-mile/last-mile” problem by helping riders get to and from existing routes.²²⁹ To this end, L.A. County’s Metropolitan Transportation Authority is negotiating with Lyft to gain access to how riders use Lyft for travel to or from a Metro station.²³⁰

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227. See Megan McCardle, *Uber Serves the Poor by Going Where Taxis Don’t*, BLOOMBERG (July 20, 2015), <http://www.bloombergview.com/articles/2015-07-20/uber-serves-the-poor-by-going-where-taxis-don-t> (“For taxi drivers, time is money—any time they’re not driving someone around, they are burning gas looking for a fare. So no wonder drivers would rather head downtown, where there were lots of people looking for taxis Street hailing simply isn’t efficient without a dense population of riders.”). An independent analysis funded by Uber makes a similar claim. See ROSANNA SMART ET AL., BOTECH ANALYSIS CORP., *FASTER AND CHEAPER: HOW RIDE-SOURCING FILLS A GAP IN LOW-INCOME LOS ANGELES NEIGHBORHOODS* (2015) (finding that UberX is faster and less expensive than taxis in low-income Los Angeles neighborhoods).
228. See Jess Zimbabwe, *First Over the Bridj*, URBAN LAND (July 6, 2015), <http://urbanland.uli.org/economy-markets-trends/first-bridj> (“Once [Bridj] works out the operational kinks and is able to provide more reliable service location information, it will spur investment in large swaths of the city that are just a little too far from transit—and open up more land for Washington [DC] and other cities to meet their growth challenges.”).
229. SUSAN SHAHEEN & NELSON CHAN, TRANSP. SUSTAINABILITY RESEARCH CTR., *MOBILITY AND THE SHARING ECONOMY: IMPACT SYNOPSIS 3* (2015); see also Tracy Lien, *Uber Says It’s Plugging Gaps in L.A. County Public Transit System*, L.A. TIMES: SHARELINES (Feb. 26, 2015, 1:38 PM), <http://www.latimes.com/business/technology/la-fi-tn-uber-la-public-transport-20150226-story.html> (reporting that Uber, in presenting findings from a study of users in Los Angeles, remarked that “it sees itself as complementary to the area’s existing public transportation infrastructure, helping close ‘gaps’ in people’s commute by getting them to and from public transportation hubs”).
230. Laura J. Nelson, *Lyft May Share Data on Rides that Start and End at Metro Stations*, L.A. TIMES (Feb. 22, 2016), <http://www.latimes.com/local/lanow/la-me-ln-lyft-metro-los-angeles-20160222-story.html>. In exchange for the data, Metro would provide advertising for Lyft and perhaps add Lyft as a transportation option on the agency’s mobile app.

At the same time, it is possible that the growth of the transportation segment of the sharing economy will negatively affect public transportation.²³¹ A decline in public transportation ridership, as users switch to carpooling, ride share, or private commuter bus providers, could exacerbate existing problems for cash-strapped urban transportation systems. This might result in decreased service or increased fares, either of which would have an adverse effect on low-income individuals who rely on public transportation networks.²³²

As the sharing economy thrives in dense urban neighborhoods it will also change the nature of the home and its relationship to its surrounding neighborhood. In an earlier article, one of us explored the relationship between the sharing economy and micro-units—housing that contains a private bathroom and kitchen or kitchenette but that is significantly smaller than a standard studio in a given city.²³³ Demand for these units is driven in part by a dramatic mismatch between the stock of existing housing and the rapidly changing composition of urban households.²³⁴ These units are typically located in dense urban neighborhoods with desirable amenities, and residents often compensate for their small living space by accessing goods through the sharing economy rather than owning them.²³⁵

Easy access to sharing-economy resources within close proximity can help transform an urban neighborhood into a micro-unit resident's "living room."²³⁶

231. See Eric Jaffe, *How the Microtransit Movement is Changing Urban Mobility*, CITYLAB (Apr. 27, 2015), <http://www.citylab.com/commute/2015/04/how-the-microtransit-movement-is-changing-urban-mobility/391565/>.

232. See Glaeser et al., *supra* note 85, at 986 ("Poor people are attracted to big cities because they offer access to public transportation and inexpensive rental housing.").

233. John Infranca, *Spaces for Sharing: Micro-Units Amid the Shift from Ownership to Access*, 43 FORDHAM URB. L.J. (forthcoming 2016).

234. See John Infranca, *Housing Changing Households: Regulatory Challenges for Micro-Units and Accessory Dwelling Units*, 25 STAN. L. & POL'Y REV. 53, 56-61 (2014) (discussing disjunction between growing share of urban households consisting of one person and limited supply of studio and one-bedroom units in major cities).

235. See Emily Compton, *Could Micro-Apartments Help Ease Austin's Housing Crunch?*, REPORTING TEX. (May 9, 2014), <http://reportingtexas.com/could-micro-apartments-help-ease-austins-housing-crunch/> (quoting a developer who declared that micro-unit residents have few belongings, "are part of the sharing economy," and are "willing to have less space in order to live in a cool neighborhood and have access to the amenities of the city").

236. See Darcy Wintonyk & Lynda Steele, *A 226 Sq. Ft. Solution to Living Large in Vancouver*, CTV B.C. (Aug. 17, 2012), <http://bc.ctvnews.ca/a-226-sq-ft-solution-to-living-large-in-vancouver-1.917039> (quoting a Vancouver developer who declared that, for young micro-loft tenants, "[t]he city is your living room. The city is your dining room. You don't need to use your own resources to recreate all that when you can just step out your door and enjoy a park, a beach, a restaurant, a café"); Franklyn Cater, *Living Small in the City: With More Singles, Micro-Housing Gets*

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Instead of struggling each day to find space to work in a coffee shop, one can pay a monthly fee to obtain access to a nearby co-working space. Instead of paying extra each month for a second bedroom for out-of-town visitors, one can find close accommodations for a guest through Airbnb. This dynamic interaction between the sharing economy and housing has already begun to affect how cities plan neighborhoods and the shape of developments. For example, Boston's Seaport/Innovation District provides developers a limited opportunity to construct "Innovation Units" smaller than the city's minimum unit size.²³⁷ The units, which explicitly rely upon access to shared workspaces and other resources (both private and public) within the neighborhood, are envisioned as a crucial ingredient in the creation of a twenty-four-hour neighborhood where density and proximity foster collaboration and information spillovers that drive innovation.²³⁸

In a number of cities, developers have begun to create housing that more directly incorporates the culture of the sharing economy.²³⁹ The co-working company WeWork is branching into housing through its WeLive brand, which places shared co-working spaces in the same building as micro-units.²⁴⁰ More

Big, NAT'L PUB. RADIO (Feb. 26, 2015), <http://www.npr.org/2015/02/26/389263274/living-small-in-the-city-with-more-singles-micro-housing-gets-big> ("A key idea behind buildings like this is that people spend less time in their own apartments. There's a common space—think sharing economy, extra space when you need it. There's a roof deck, a dining area that can be reserved, lounge with TV and Wi-Fi.")

237. "This new housing type focuses on helping residents make connections with each other: they emphasize shared common space, with units that have smaller private spaces but are connected to larger shared amenity spaces to foster a sense of community." *FAQ: Housing*, BOST.'S INNOVATION DIST. (Nov. 12, 2013), <http://www.innovationdistrict.org/?s=innovation+units> (last visited June 13, 2016).
238. According to its official website, the Boston Innovation District strives to foster a "shared idea economy" through strategies that include clustering innovative people on the agglomerative theory that "[p]eople in close proximity innovate faster and share technologies and knowledge more easily." *The Strategy*, BOST.'S INNOVATION DIST., <http://www.innovationdistrict.org/the-strategy> (last visited June 27, 2016). Its strategy includes the development of a twenty-four-hour neighborhood marked by "amenities [sic] for flexible lifestyles," including innovative housing that enables collaboration. *Id.*
239. See Katherine Clarke, "Dorm" is the New Norm: Communal Living Spaces Offer Short-term Deals for Young Professionals, N.Y. DAILY NEWS (Mar. 19, 2015), <http://www.nydailynews.com/life-style/real-estate/nyc-commune-style-micro-apartment-communities-article-1.2148150> ("Proponents of the so-called sharing economy are branching out into residential real estate by planning communal living hubs with micro-apartments for young professionals.")
240. David Friedlander, *WeLive Marries Micro-Apartments, Coworking, Magic*, LIFE EDITED (July 28, 2014), <http://www.lifeedited.com/welive-marries-micro-apartments-coworking-magic>; Daniel J. Sernovitz, *WeWork Bullish on D.C.'s Tech*

communal co-living spaces, matched with co-working facilities, are also in the works.²⁴¹ Similar developments have been described as the “next wave of the sharing economy,” through which housing and other “big-ticket items” are specifically designed for sharing.²⁴² They also reveal one way in which the sharing economy is changing social interactions in urban locales and confronting the issues of anonymity and trust.

3. Toward a New Urban Geography

In these and other ways the sharing economy is changing how urban residents interact with physical space.²⁴³ Lee Fennell has suggested that if urban space is conceptualized as a commons then “[t]he method for rationing access to prime urban space should . . . select not only for the value that users place on locating in particular spots, but also for those users’ agglomeration friendly and congestion-mitigating traits.”²⁴⁴ The sharing economy complicates this assessment. Most sharing economy firms do not have a brick-and-mortar presence that makes establishing roots in a particular spot paramount. Nonetheless, for the reasons discussed in Parts I & II, they rely in significant ways on access to particular urban spaces and consequently affect those spaces in substantial

Outlook, WASH. BUS. J. (Feb. 26, 2014), <http://www.bizjournals.com/washington/blog/techflash/2014/02/wework-bullish-on-dcs-tech-outlook.html>.

241. See Kevin Tampone, *Co-Living, Co-Working Coming to Downtown Syracuse Building*, SYRACUSE, (Dec. 9, 2014), http://www.syracuse.com/news/index.ssf/2014/12/downtown_syracuse_co-working_co-living.html (discussing Commonsplace, a Syracuse, New York development that combines co-working spaces with a co-living space that includes more communal elements than most micro-living developments, such as a common kitchen and living room, group meals, and events facilitated by an on-site resident manager).
242. Tomio Geron, *Collaborative Housing Aims to Build Housing for the Sharing Economy*, FORBES (Sept. 24, 2013), <http://www.forbes.com/sites/tomiogeron/2013/09/24/collaborative-housing-aims-to-build-housing-for-the-sharing-economy>.
243. See SHAREABLE & THE SUSTAINABLE ECONS. LAW CTR., *POLICIES FOR SHAREABLE CITIES: A SHARING ECONOMY POLICY PRIMER FOR URBAN LEADERS* 6 (2013) (“The sharing economy has deep implications for how cities design urban spaces, create jobs, reduce crime, manage transportation, and provide for citizens. As such, the sharing economy also has deep implications for policy making.”).
244. See Fennell, *supra* note 118, at 103 (“What is being rationed is not just access to the consumption opportunities that particular urban districts offer, but also access to a (rivalrous) production platform for generating the very agglomeration economies that make those consumption opportunities so valuable. The challenge is to assemble participants together whose joint consumption and production activities will maximize social value.”). As Sheila Foster has argued, the city as a whole can be conceptualized as a commons, *see* Foster, *supra* note 123. This has implications for the sharing economy’s ability to moderate congestion problems in that broad urban commons.

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ways. As such, a determination of which sharing economy activities should be permitted where and to what degree, with an eye to achieving agglomeration-friendly results, will likely call for more complex data-driven policymaking and regulation than cities have pursued to date.

Changes to urban geography are likely to occur through the same iterative, experimentalist process that marks the regulation of the sharing economy. Just as the flow of data from sharing-economy firms should lead to improved targeting and greater transparency of regulations, it might also reveal how zoning contributes to the undersupply of specific goods and services in particular geographic areas. Zoning that prohibits hotels in particular neighborhoods might increase demand for Airbnb listings. But by revealing unmet demand for lodging, it could also lead to a reappraisal of such restrictions in certain areas.²⁴⁵ On this account, peer-to-peer uses do not simply frustrate city planning and zoning efforts: they serve a vital role in raising attention to neighborhoods where regulatory reform is necessary.²⁴⁶

B. Social Capital and the Platform

The sharing economy is not just changing urban governance and urban space; it is influencing the social dimension of cities as well. One already standard critique of the “sharing” economy, to return to scare quotes for a moment, is that the monetization of excess capacity undermines an older tradition of “true” sharing that did not require exchange.²⁴⁷ Thus, (originally free) CouchSurfing preceded Airbnb, and, well, carpooling with neighbors preceded Uber and Lyft. Moreover, the critique continues, charging for these activities displaces what would otherwise have been community-reinforcing sharing. If homes become hotels, what does that leave for informality? The opportunity to market the extra bedroom in one’s home may reduce the desire to actually share that space—without charge—with a friend or relative. By monetizing and

245. Analogously, the scarcity of public transportation in certain neighborhoods, by increasing demand for ride sharing, might provide empirical support for changes to a city’s public transportation network. And the lack of commercial entities in certain residential neighborhoods, by creating opportunities for an on-demand economy of goods and services to flourish, might lead to zoning reforms that bring more commercial uses to the locale.

246. Cities, or neighborhoods within cities, could serve as pilots for testing broader integration of the sharing economy into city life. Along these lines, a British government report on the sharing economy recommended the creation of a pilot “sharing city”—where transport, shared office space, accommodation and skills networks are joined together and residents are encouraged to share as part of their daily lives.” DEBBIE WOSSKOW, DEP’T FOR BUSINESS, INNOVATION & SKILLS, UNLOCKING THE SHARING ECONOMY: AN INDEPENDENT REVIEW 11 (2014).

247. See, e.g., MAURIE J. COHEN, THE FUTURE OF CONSUMER SOCIETY 44-69 (forthcoming 2017) (draft on file with authors).

scaling up what had been long-standing traditional tools of community building,²⁴⁸ many of the social bonding benefits have been lost.

There is much to this critique, particularly as it relates to small-scale communities where informality is a norm, but it is less clear how well it applies to the urban environments in which the sharing economy is thriving. More importantly, it obscures some ways in which users are adapting the platform to build new social ties in urban environments of mass anonymity. Co-living spaces are merely one example of how the sharing economy may, perhaps ironically, actually foster community in the most localist sense and generate social capital.²⁴⁹ As Stephen Miller has noted, for example, short-term rentals are being used to foster weak ties, where people want to test-drive neighborhoods and also get to know people in places they otherwise would not through hosts.²⁵⁰

In some ways, the peer reviews that these platforms operate through can serve as a substitute for an individual's local reputation or personal references.²⁵¹ That can allow communities to come together rapidly over shared interests in ways that might otherwise be challenging in urban environments, beyond purely superficial encounters. For example, the founders of Shareyourmeal, which enables neighbors to share meals, seek, in part, to facili-

248. Cf. Zale, *supra* note 50, at 63-65 (discussing the scale and transformation of traditional sharing activities).

249. If the sharing economy fosters the development of social capital by encouraging residents to mix with one another in new and creative ways, it may also contribute to economic growth. Cf. Richard Florida, *For Creative Cities, the Sky Has Its Limit*, WALL ST. J. (Jul. 27, 2012), <http://www.wsj.com/articles/SB10000872396390443477104577551133804551396> (“It turns out that what matters most for a city’s metabolism—and, ultimately, for its economic growth—isn’t density itself but how much people mix with each other.”).

250. Miller, *supra* note 3, at 34.

251. Sharing enterprise trust mechanisms differ in a fundamental way from the model of earlier peer-to-peer marketplaces like eBay. See Jason Tanz, *How Airbnb and Lyft Finally Got Americans to Trust Each Other*, WIRED (Apr. 23, 2014), <http://www.wired.com/2014/04/trust-in-the-share-economy>. While buying something on eBay is a “binary experience”—you either receive what you ordered or you do not—in many cases transactions in the sharing economy involve the provision of a service—a ride across town, or a lodging for the night—where the standard of the service provided can vary along multiple dimensions. *Id.* More importantly, unlike with eBay, sharing-economy transactions frequently involve face-to-face, rather than purely virtual, interactions, a “digital re-creation of the neighborly interactions that defined pre-industrial society.” *Id.*

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tate relationships between neighbors.²⁵² Once those connections are made, they can be reinforced in more traditional ways.²⁵³

One way to understand this dynamic might be that the sharing economy has the most potential to foster what Robert Putnam has labeled “bridging” social capital—networks across socially heterogeneous groups—perhaps at the expense of “bonding” social capital—which operates to bind more homogenous and close-knit groups.²⁵⁴ The platforms that facilitate the pairing of providers and users of sharing-economy services and goods might enable interactions across heterogeneous groups that would not occur in the absence of the platform. In the past such matches may have occurred only through existing social networks and personal relationships. In the hurly-burly of the diverse urban environments in which the sharing economy thrives, there are definitely platforms that are bringing together strangers, even in a monetized way. However, given the cultural and technological underpinnings to early adoption of the monetized version of sharing, it is unclear how diverse those bridges will become.²⁵⁵

The effect on social capital, moreover, may differ across different segments of the sharing economy. The sharing of space, for example, in the WeWork model or even through accommodations in short-term rentals may bring strangers together who would otherwise be wary of each other. Likewise, the collaborative consumption of “stuff” can also foster localized interaction, especially if it is ongoing. But the personal services and transportation sectors seem less amenable to this kind of serendipitous social interaction. A co-working space can also provide opportunities for bonding among individuals with similar backgrounds. For example, just outside of Washington, D.C., I/O Spaces, targets its services at tech workers within the African diaspora.²⁵⁶ The company

252. *About Us*, SHAREYOURMEAL, <https://www.shareyourmeal.net/about-us/item42196> (last visited Apr. 26, 2016); see also DERVOJEDA ET AL., *supra* note 56, at 6 (“[B]y having neighbours visit each other for picking up takeaway food, [Shareyourmeal] also helps to create trust between strangers in a neighbourhood.”).

253. Carol Rose has noted a variation on this dynamic as an argument for gift-giving among strangers, see Carol M. Rose, *Giving, Trading, Thieving, and Trusting: How and Why Gifts Become Exchanges, and (More Importantly) Vice Versa*, 44 FLA. L. REV. 295, 313-14 (1992), but the sharing economy may play this role particularly well given the ability to tap disparate reputation mechanisms instead of arm’s-length transactional norms among strangers.

254. ROBERT D. PUTNAM, *BOWLING ALONE: THE COLLAPSE AND REVIVAL OF AMERICAN COMMUNITY* (2000).

255. See generally Sheila R. Foster, *The City as an Ecological Space: Social Capital and Urban Land Use*, 82 NOTRE DAME L. REV. 527 (2006) (discussing the interaction between urban space and social capital).

256. Dan Reed, *A U.S. Co-Working Space Aimed at the African Diaspora*, CITYLAB (Jan. 14, 2016), <http://www.citylab.com/tech/2016/01/coworking-africa-diaspora-silver-spring/423312/>.

seeks to strengthen social bonds and empower individuals from backgrounds currently underrepresented in the broader tech industry.

Once this overall dynamic is recognized, however, it might be possible to design regulatory strategies to reinforce the aspects of the sharing economy that, at net, promote social capital. Partially as a tool to reinforce social capital, for example, some local governments and individual neighborhoods have acted as providers of sharing programs. Perhaps the best known example is tool sharing in Berkeley, California and Portland, Oregon.²⁵⁷ Some have also proposed the possibility of worker-owned co-ops forming to provide, in particular locales, an app equivalent to Uber or Lyft for local taxi drivers.²⁵⁸ Rather than sending twenty or thirty percent of the cost of each ride to the platform provider, such a co-op could use that money to undercut Uber's pricing and provide driver-owners with additional benefits.²⁵⁹ In a similar vein, the nonprofit Ride Austin, which recently started up following the departure of Uber and Lyft, seeks to direct a greater share of fares to drivers.²⁶⁰ Such approaches are particularly place-based in their orientation. Their genesis might be understood less as the consequence of a failure of urban markets than as the distinct product of the types of interactions fostered by urban living. They might also be understood by their creators and supporters in explicitly place-based terms, as a local effort to improve their neighborhood or community by sharing the costs of providing a particular amenity and by fostering interactions that build social capital. This is a microcosm of what the sharing economy may bring to cities as a whole.

IV. URBAN GOVERNANCE BEYOND SHARING

Understanding the sharing economy as an urban phenomenon highlights how the sector is altering not just the urban landscape and the social experience of living in cities but also how individuals interact with local government and the political economy more generally. It also reveals the need for a new, holistic approach to regulating the sharing economy at the local level that accounts for how deeply entwined the sector is with urban space and city life.

257. *Tool Lending Library—Borrowing Tools*, BERKELEY PUB. LIBRARY, <https://www.berkeleypubliclibrary.org/locations/tool-lending-library/tool-lending-library-how-use-it> (last visited June 13, 2016); NE. PORTLAND TOOL LIBRARY, <http://www.neptl.org> (last visited June 13, 2016).

258. Alex Marshall, *An Old Idea for the New App-Based Economy*, GOVERNING (Dec. 2015), <http://www.governing.com/columns/eco-engines/gov-sharing-economy-co-ops.html>.

259. *Id.*

260. See *supra* notes 175-183 and accompanying text.

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A. *Spillovers of Regulatory Conflicts over Sharing*

If the urban, grounded nature of the sharing economy blunts the traditional force of exit as a response to regulation,²⁶¹ it simultaneously heightens the power of voice.²⁶² Sharing-economy firms are enlisting their technological platforms to mobilize users in support of or opposition to specific local-government policies.²⁶³ One consistent strategy that sharing enterprises have used in conflicts with local governments is to rapidly establish a base of both consumers and providers who are invested in the given model and then to use that base to push the political discourse.²⁶⁴ These efforts force cities to more clearly articulate the reasons for specific regulations and to support them empirically.²⁶⁵

The many well-resourced fights that sharing economy enterprises are having with city governments across the country are not only setting the terms of the sharing economy, but also are changing the nature of local government regulation in three key ways. First, to the extent that the sharing economy thrives at the interstices of existing regulation, it is compelling local governments to

261. See *supra* Part II.A.2.

262. This could lead, following Charles Tiebout's model, to local governments becoming more responsive to consumer preferences for particular regulations. Tiebout, *supra* note 141 (suggesting that mobile residents will sort among localities based upon their preferences among the packages of amenities, regulation, and taxes each local government provides); cf. Erin A. O'Hara & Larry E. Ribstein, *From Politics to Efficiency in Choice of Law*, 67 U. CHI. L. REV. 1151, 1163 (2000) ("Individuals and firms who have an incentive to minimize their transaction and information costs and an ability to choose legal regimes that accomplish this goal over time may cause the law to move toward efficiency, if only because inefficient regimes end up governing fewer people and transactions.").

263. As an article on the defeat of Proposition F, a San Francisco ballot measure that would have added new restrictions for short-term rentals, reported: "A jaw-dropping 138,000 city residents stayed in Airbnb rentals or hosted guests themselves in the past year, the company said. It contacted all of them, urging them to vote against Prop. F. That compares with 446,841 registered voters in the whole city, about half of whom voted in 2014." Carolyn Said, *Prop. F: S.F. Voters Reject Measure to Restrict Airbnb Rentals*, S.F. CHRON. (Nov. 4, 2015), <http://www.sfgate.com/bayarea/article/Prop-F-Measure-to-restrict-Airbnb-rentals-6609176.php>.

264. See Rauch & Schleicher, *supra* note 3, at 24-25.

265. This is what we mean when we describe the distributed regulatory response to the sharing economy and the sector's reaction as a dialectic, in the sense of a thesis, antithesis, and synthesis. This is not to embrace the many winding ways in which the idea of a dialectic has been deployed and debated—from Kant to Marx and beyond. We invoke this triad merely to highlight a phenomenon in which new entrants encounter existing legal constraints, and both those business models and the regulatory regimes themselves shift as a result.

more clearly articulate and justify their regulatory objectives.²⁶⁶ Participation in the sharing economy makes certain forms of local regulation more visible and salient.²⁶⁷ It does so for both providers and consumers, particularly those participating in the market for the first time, as well as participants used to the norms of previously small-scale, unregulated (or underregulated) shadow markets.²⁶⁸ Second, local governments are seeking to enlist sharing-economy firms in this process by obtaining—through either voluntary partnerships or legal action—the substantial data those firms possess.²⁶⁹ In the best-case scenario, access to this data will improve the targeting of regulation by providing new means to test empirically the link between various regulatory objectives and their instantiation in actual ordinances, regulations, and enforcement choic-

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266. A recent *Boston Globe* op-ed by the two state elected officials behind a proposal to regulate Uber provides a very literal example of this. Linda Dorcena Forry & Michael Moran, *Why We Want to Regulate Uber*, BOST. GLOBE (Aug. 5, 2015), <https://www.bostonglobe.com/opinion/2015/08/05/why-want-regulate-uber/VpzJVS6OEteQAnt2Ss8AAJ/story.html>; see also Verlaine & Brunsden, *supra* note 130 (discussing how government in Brussels “has indicated that it will seek to adapt the relevant [taxi] regulations in a way that takes into account new technologies”). *But see* Miller, *supra* note 3, at 20-21 (contending that in the sharing economy “the harm is often uniquely challenging to determine,” creating challenges for local government regulation).
267. See, e.g., Cass R. Sunstein, *What’s Available? Social Influences and Behavioral Economics*, 97 NW. U. L. REV. 1295 (2003) (discussing social dynamics of salience in the regulatory sphere).
268. Related to the particular social frictions generated by the sharing economy is the reality that this new model also appears to be pulling previously “underground” activities that occurred in violation of existing regulations into the light. See Anand Giridharadas, *Is Technology Fostering a Race to the Bottom?*, N.Y. TIMES (June 1, 2012), <http://www.nytimes.com/2012/06/02/us/02iht-currentso2.html> (discussing how digital platforms facilitate the same types of activities found in the informal economy). One novel aspect of the sharing economy is its scale and how that scale brings many previously informal activities into prominence and garners attention from both regulators and incumbent providers.
269. For example, the City of Austin’s regulations governing transportation network companies, which led to the departure of Uber and Lyft from the city, require monthly data reports “for the purpose of supporting public safety and transportation planning including prevention of driving while intoxicated.” AUSTIN, TEX. AN ORDINANCE AMENDING CITY CODE CHAPTER 13-2 RELATING TO TRANSPORTATION NETWORK COMPANIES (TNCs) AND TERMINATING TNC OPERATING AGREEMENTS, Ordinance No. 20151217-075 (Dec. 17, 2015). *Cf.* HIRSHON ET AL., *supra* note 18, at 13 (suggesting that “[a]s more data becomes available, city officials must be prepared to use it to adjust or create legislation to ensure that the sharing economy is positively impacting economic development, tourism and job creation”).

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es.²⁷⁰ Third, and perhaps most intriguing, the sharing economy, by rendering certain local regulations more salient for local residents, is having spillover effects that will lead to heightened expectations of transparency for local government regulation more generally. These trends towards increased transparency and improved targeting of regulations are deeply intertwined and, on the whole, quite salutary.

Questions of regulatory fit are not an entirely new concept in urban governance. In land use and public finance, litigants challenge impact fees and exactions, invoking the *Nollan-Dolan* unconstitutional conditions doctrine, which already places a burden on local governments to articulate and defend the nexus between policies and their impact on regulated individuals and entities as well as to quantify the extent to which mitigation impacts relevant policy concerns.²⁷¹ The sharing economy is now pushing this justificatory concordance into much broader policy arenas.

All of this can be seen in the recent conflict between New York City and Uber. The de Blasio Administration proposed capping Uber drivers and, in response, Uber rolled out a short-lived de Blasio feature, visible only to users in New York City and purporting to show “what Uber will look like in NYC if Mayor de Blasio’s Uber cap bill passes.”²⁷² In response to the uproar this helped ignite, the de Blasio administration quickly dropped plans for a cap and announced an agreement through which Uber would share data for a study of the local traffic effects of ride-share operators.²⁷³ This might simply be interpreted as the city government caving to quickly mobilized and widespread opposition.²⁷⁴ But it could also be seen as an example of a city government proposing a

270. Eric Biber and J.B. Ruhl have suggested a general permit system for short-term rentals, with increasing obligations for property owners based on how many days they rent out their property during a year. See Biber & Ruhl, *supra* note 116. Such a system would also require providing the city with information that allows it to “keep track of the impacts of this activity and possibly regulate if those impacts appear to be growing too much or are too concentrated.” *Id.*

271. *Dolan v. City of Tigard*, 512 U.S. 374, 391 (1994); *Nollan v. Cal. Coastal Comm’n*, 483 U.S. 825, 836 (1987).

272. Issie Lapowsky, *Uber’s New Fake Feature in NYC Derides Regulators*, WIRED (July 16, 2015), <http://www.wired.com/2015/07/uber-de-blasio>; see also Giulia Olsson & Ross Barkan, *Uber’s Passive Aggressive Response to the Mayor’s Proposed Cap Bill*, N.Y. OBSERVER (July 16, 2015), <http://observer.com/2015/07/ubers-passive-aggressive-response-to-the-mayors-proposed-cap-bill> (“Selecting the de Blasio option yields a blank screen without any cars, with the wait time multiplied by ten.”).

273. See Flegenheimer, *supra* note 121.

274. Richard Cohen, *Uber Mows Down Bill de Blasio*, Wash. Post (July 27, 2015), https://www.washingtonpost.com/opinions/ubers-bare-knuckle-battle-against-the-taxi-industry/2015/07/27/e0e7be98-3483-11e5-8e66-07b4603ec92a_story.html (“Uber marshaled most of the world’s lobbyists and consultants and, in the apt description of the online journal Capital ‘crushed the mayor.’”).

regulation, confronting opposition, and then, through partnership and reliance upon shared data, working to construct a more narrowly tailored and empirically grounded regulatory response.

The controversy between Uber and the City of New York reveals how the technology of the platform can alter the dynamics of local politics in urban areas.²⁷⁵ Whereas traditionally a concentrated interest group in a city might be able to obtain regulatory benefits that impose diffuse (and often not particularly salient) costs, the technology of sharing platforms can quickly be harnessed to organize the diffuse individuals who experience those costs, changing the political dynamic, as Daniel Rauch and David Schleicher have noted.²⁷⁶ While technology has been championed in other contexts as a means to achieving greater transparency—in the sense of opening government deliberations to public view²⁷⁷—sharing-economy technology has the potential to raise expectations regarding the explanations and goals local governments must proffer for specific regulatory decisions. Rather than ensuring a more democratic process, this form of transparency ideally leads to more efficient and effective governance.²⁷⁸

This greater expectation of regulatory transparency may originate within the context of the sharing economy, but it is likely to spread to other realms of local regulation. Local governments increasingly rely upon data to make decisions and improve service provision in areas beyond those in which sharing-economy firms operate—from policing, to public transportation, to code enforcement, to emergency response, among many others.²⁷⁹ It is reasonable to

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275. Sharing economy firms are quick to email users with petitions regarding proposed legislation. Uber, for example, recently emailed users in Massachusetts to sign a petition opposing proposed legislation. See *Take Action: Save Uber Massachusetts!*, UBER, <http://petition.uber.org/save-ma/> (last visited June 27, 2016). The petition reveals key elements of the company's approach: blame incumbent "taxi special interest groups" for stifling innovation and claim support for more targeted "smart regulations" and consumer choice. *Id.*
276. See Rauch & Schleicher, *supra* note 3, at 23-25 (citing MANCUR OLSON JR., *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* 1-18 (1963)) (discussing how sharing economy companies invert the "Olsonian mismatch" between smaller groups encountering concentrated harms and larger groups experiencing diffuse benefits).
277. Patricia E. Salkin, *From Bricks and Mortar to Mega-Bytes and Mega-Pixels: The Changing Landscape of the Impact of Technology and Innovation on Urban Development*, 42/43 *URB. LAW.* 11, 24 (2010/2011) (arguing that state and local government websites have dramatically increased government transparency).
278. See Mark Fenster, *The Opacity of Transparency*, 91 *IOWA L. REV.* 885, 894-902 (2006) (summarizing claimed benefits of transparency, including both "democratic benefits" and improvements in "the quality of governance").
279. See, e.g., *Bye-bye, Bloomberg*, *ECONOMIST* (Nov. 2, 2013), <http://www.economist.com/news/united-states/21588855-pondering-meaning-new-yorks-billionaire-mayor-bye-bye-bloomberg> (citing, in relation to claim that former New York City Mayor Michael Bloomberg brought greater transparency to city government, his

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presume that as citizens become more familiar with the operation and effect of local government regulation through their participation in the sharing economy, they will grow increasingly curious about its effects in other parts of their lives and expect similar levels of transparency.²⁸⁰ At the same time, access to data figures prominently in disputes between city governments and sharing firms.²⁸¹ City governments recognize the valuable role this data may play not only in identifying the effects of sharing-economy firms and the proper regulatory response but also in highlighting gaps in city services and places for improvement.²⁸² By increasing the salience of regulation, facilitating political par-

motto: “In God we trust. Everyone else, bring data.”); Steve Annear, *Uber Shares Its Data with the City of Boston*, BOST. MAG. (Jan. 13, 2015), <http://www.bostonmagazine.com/news/blog/2015/01/13/uber-boston-team-up-data> (quoting the statement of Boston Mayor Marty Walsh, who remarked, “In Boston, data is driving our conversations, our policy making, and how we envision the future of our city. . . . We are using data to change the way we deliver services and we welcome the opportunity to add to our resources”).

280. See SUNIL JOHAL & NOAH ZON, MOWAT CTR., POLICYMAKING FOR THE SHARING ECONOMY: BEYOND WHACK-A-MOLE 22 (Feb. 2015) (“The advent of the digital era, and the sharing economy give rise to a number of questions about how government can best organize itself to operate in a world where information flows freely across borders and citizens expect greater levels of speed, transparency and effectiveness.”). However, as Mark Fenster observes, greater expectations of transparency may lead not to more accountability but instead to local governments “decid[ing] to govern less, whether by choice or to avoid the financial and political costs of openness.” Fenster, *supra* note 278, at 934.
281. Sharing firms have also found themselves in conflicts with state government over access to data. In California, Uber is required to provide the state with substantial data under the terms of a 2013 law legalizing ride-hailing, which requires the data to measure compliance with state laws prohibiting discrimination against passengers. In July 2015, an administrative judge recommended the company be fined \$7.3 million and its operations suspended due to failure to provide the required data. Laura J. Nelson, Andrea Chang & Paresh Dave, *Uber Should be Suspended in California and Fined \$7.3 Million, Judge Says*, L.A. TIMES (July 15, 2015), <http://www.latimes.com/business/la-fi-uber-suspended-20150715-story.html>. According to the judge, Uber failed to comply with the law by not reporting “hard numbers on customers who requested cars to accommodate service animals or wheelchairs, nor how often those requests were fulfilled.” *Id.* Uber contended that it had already provided information equivalent to what other jurisdictions found acceptable and asserted that providing further data would compromise the privacy of riders and drivers. *See id.*
282. For example, Boston has partnered with Uber, as well as the peer-to-peer traffic app Waze, to obtain data useful for addressing transportation issues. *See* Annear, *supra* note 279; *see also* HIRSHON ET AL., *supra* note 18, at 15 (discussing interviews with city officials who noted the “value of collecting new data to identify gaps in core services”); Gabrielle Gurley, *Bridj Revs Up*, COMMONWEALTH, Winter 2016, at 11 (reporting that Bridj’s founder and CEO wants to use traffic data gathered by the company to help transportation agencies alleviate congestion).

ticipation, and providing a model of data-driven decision-making, the sharing economy has the potential to make citizens more informed consumers of particular regulatory regimes.

B. Holistic Local Regulation in a Sharing Economy

The innovations arising out of the sharing economy not only rely on key features of the urban landscape, but they are also reshaping that landscape, as we discussed.²⁸³ Accordingly, government actors will need to avoid focusing solely on the most visible and immediate effects of these innovations. Instead, they must consider how regulations might nurture the development of a sharing sector that draws on agglomeration benefits to confer a range of benefits that are broadly distributed. To this end, rather than one-off responses to each new sharing-economy firm that disrupts existing regulatory schemes, local governments should comprehensively plan for the role they envision the sharing economy playing in the future shape and form of their city.²⁸⁴

Local governments should thus consider how the sharing economy interacts with and shapes neighborhoods and urban spaces more generally. This suggests the need to think more holistically about regulatory responses and their broader implications—not just the externalities of how sharing firms operate but also how the economy, geography, and social life of cities will increasingly blend traditional business models with this emerging phenomenon.²⁸⁵ It is also a call to recognize the possibility of regulating the sharing economy differently across a city, depending on its interaction with particular neighborhoods. Zoning regulations make such distinctions all the time, and there is no reason to think that the sharing economy cannot also be regulated in a way that takes into account neighborhood differences.²⁸⁶

In taking this broad view, local governments must also confront the distributional effects of the sharing economy and consider its potential as a tool for redistribution.²⁸⁷ For example, a strategy that enlists sharing-economy transportation firms to complement public transportation infrastructure, rather than supplant it, could provide access in underserved areas while increasing, rather

283. See *supra* Part III.

284. In some sense this is a call for something akin to the “Sharing Economy Working Group” that was announced, but appears to have never begun operation, in San Francisco. See *supra* note 155.

285. As a National League of Cities report on the sharing economy aptly noted, “[c]ities that tackle regulation in a piecemeal manner may find themselves continually rewriting legislation.” See HIRSHON ET AL., *supra* note 18, at 30.

286. In this vein, a recent study of short-term rentals in New Orleans, conducted by the City Planning Commission, suggested regulations that would limit the density of short-term rentals in particular neighborhoods. See CITY PLANNING COMM’N, *supra* note 162, at 55.

287. See *supra* text accompanying notes 221–223.

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than reducing, ridership.²⁸⁸ Moreover, some components of the peer-to-peer economy, by their very presence in lower-income communities, can bring substantial benefits by providing access to a resource that would otherwise be prohibitively expensive to purchase, benefits that are not—specifically speaking—coming from redistribution. In this respect, peer-to-peer car sharing programs such as Getaround and RelayRides can help facilitate both access to and ownership of a vehicle by defraying the cost of both.²⁸⁹ Finally, as noted earlier, the urban nature of the sharing economy and the fact that much of the demand for the goods and services it provides is tied to place, restrict the traditional ability to exit. This dynamic might provide local governments with further opportunities to derive specific concessions from sharing-economy companies.

As local governments call for sharing-economy firms to release data regarding their operations and compliance with existing regulations, they should expect those same companies to challenge the targeting and efficiency of local regulations.²⁹⁰ In New York City, Airbnb shared data on its hosts as part of an

288. See Heather Somerville, *Uber Pushes Into Public Transit With New App Partnership*, REUTERS (Jan. 11, 2016), <http://www.reuters.com/article/us-uber-partnership-idUSKCN0UP18L20160111> (describing Uber’s “effort to ally itself with public transit agencies”); see also *supra* notes 227-232 and accompanying text.

289. See Fraiberger & Sundararajan, *supra* note 78, at 4 (discussing a model that predicts higher gains from peer-to-peer rental markets for below-median income segment). Fraiberger and Sundararajan suggest that one factor contributing to these higher gains is that “lower-income consumers who could not afford to own a car and were thus excluded from participation now consume through the peer-to-peer rental marketplace.” *Id.* In Chicago, Getaround is participating in a federally funded project to study peer-to-peer car sharing over a two-year period. Press Release, Getaround, Getaround Partners With SUMC and CNT for \$715,000 Grant and Launches On-Demand Service in Chicago (Aug. 10, 2015), <https://www.getaround.com/press/library/2015/08/10-Getaround-partners-with-SUMC-and-CNT-for-715000-grant-and-launches-on-demand-service-in-Chicago>. Among other things, the study will examine the effect of peer-to-peer carsharing in low- and moderate-income communities. *Id.*

290. Sarah Cannon and Lawrence Summers have suggested that sharing-economy companies, by sharing their data with the government, “can help [their] case by reducing regulator concerns.” Sarah Cannon & Lawrence H. Summers, *How Uber and the Sharing Economy Can Win Over Regulators*, HARV. BUS. REV. (Oct. 13, 2014), <https://hbr.org/2014/10/how-uber-and-the-sharing-economy-can-win-over-regulators>. As an example they offer the founder of RelayRides’ suggestion of “metrics-based regulations,” such as using data regarding accidents and insurance claims to determine insurance requirements. *Id.* A report by McKinsey & Company recommends that, rather than simply identifying economic benefits for hosts who use Airbnb to pay their rent, the company should instead use its data “to identify segments, such as owners of multiple properties that compete directly with incumbents and should perhaps be regulated in a more traditional way.” Albert Marchi & Ellora-Julie Parekh, *How the Sharing Economy Can Make its Case*, MCKINSEY Q. (Dec. 2015), [277](http://www.mckinsey.com/business-functions/strategy-</p></div><div data-bbox=)

effort to convince regulators that, rather than operating illegal hotels, the majority of hosts only have one or two listings on the platform.²⁹¹ The company plans to release data on other locales and, as an article on the release remarked, “[b]y sharing anonymized data with other towns, the company said it hoped regulators would work to draft more comprehensive, up-to-date legislation that deals with the short-term-rental phenomenon.”²⁹² However, a few months after the release of data in New York, a report by an independent website revealed that Airbnb had removed a significant number of listings shortly before sharing the data.²⁹³ That website, Inside Airbnb, aggregates publicly available data from Airbnb and presents it in a manner that enables users to filter the data to study Airbnb’s presence at the neighborhood level.²⁹⁴ To the extent that sharing economy firms push local governments towards more data-driven policymaking, these efforts will likely complement calls for greater regulatory transparency by city residents. Given the rapidly changing dynamics of the sharing economy and the rich data it generates, cities should be willing to experiment with and revise regulatory responses in light of new information.

There is another possibility inherent in the data richness of the sharing economy. For local governments in particular, these technological tools may be adapted to measure and confront particularly local externalities. In a manner akin to performance zoning, local governments might even seek to govern sharing-economy activities through performance standards or other more responsive regulatory regimes rather than more prescriptive regulations.²⁹⁵ For example, São Paulo, Brazil is exploring a particularly intriguing regulatory approach under which transportation network companies would bid online at a public

and-corporate-finance/our-insights/how-the-sharing-economy-can-make-its-case.

291. See Mike Isaac, *Airbnb Releases Trove of New York City Home-Sharing Data*, N.Y. TIMES (Dec. 1, 2015), <http://www.nytimes.com/2015/12/02/technology/airbnb-releases-trove-of-new-york-city-home-sharing-data.html>.
292. *Id.* A posting on Airbnb’s Public Policy Blog announcing the “Airbnb Community Compact” declared that the company would “both protect our hosts’ and guests’ privacy and provide cities the anonymized information they need to make informed decisions about home sharing policies in their communities.” *The Airbnb Community Compact*, AIRBNB PUB. POL’Y BLOG (Nov. 11, 2015), <http://publicpolicy.airbnb.com/compact>.
293. See Jonah Bromwich, *Airbnb Purged New York Listings to Create a Rosier Portrait, Report Says*, N.Y. TIMES (Feb. 11, 2016), <http://www.nytimes.com/2016/02/12/business/airbnb-purged-new-york-listings-to-create-a-rosier-portrait-report-says.html>.
294. See INSIDE AIRBNB, <http://insideairbnb.com/> (last visited June 27, 2016).
295. See generally Frederick W. Acker, *Performance Zoning*, 67 NOTRE DAME L. REV. 363 (1991).

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auction for credits to drive a certain number of vehicle-kilometers.²⁹⁶ The system provides the city with flexibility to provide pricing incentives to encourage the provision of service in underserved areas or as a complement to public transport.²⁹⁷ It also requires companies to provide the city with data on their services, which it can analyze to improve services and regulation.²⁹⁸ Such an approach might better enable sharing firms to continue to innovate while allowing for regulations that address problematic externalities. In sum, understanding the sharing economy as an urban phenomenon calls for local governments to more holistically regulate this sector and to consider how the rich data it generates might enable more carefully calibrated responses to its localized effects.

CONCLUSION

In the space of less than a decade, cities and the sharing economy have begun a dialogue that is having profound consequences for both sides. For the sharing economy, the fact that regulation is distributed across hundreds of urban environments has created the opportunity to test local conditions, adapting to regulatory concerns at times and challenging them at others. The industry has proven able to adapt rapidly to new conditions, which augurs well that as effective governance strategies emerge from the diversity of local responses, innovation will continue while important regulatory concerns raised by the sharing economy are not ignored.

For cities, an equally intriguing but far less widely discussed dynamic is at play. This rapidly metastasizing sector has already placed significant pressure on traditional, often poorly examined regulatory rationales and has pushed local governments themselves to innovate in response. This will have consequences both for the regulatory landscape of traditional urban concerns—in land use, transportation, housing, and other areas—and for the shape of cities themselves. Only by understanding the extent to which the sharing economy has arisen out of and is now transforming the urban fabric can scholars and regulators hope to craft appropriate regulatory responses.

296. Georges Darido, *Sao Paulo's Innovative Proposal to Regulate Shared Mobility by Pricing Vehicle Use*, WORLD BANK (Jan. 26, 2016), <http://blogs.worldbank.org/transport/sao-paulo-s-innovative-proposal-regulate-shared-mobility-pricing-vehicle-use>.

297. *Id.*

298. *Id.*