

RESEARCH REPORT

Land Use Reforms for Housing Supply

Case Studies on the Process for Passing and Implementing Regulation Changes

Lydia R.P. Lo
URBAN INSTITUTE

Eleanor Noble
URBAN INSTITUTE

Diane K. Levy
URBAN INSTITUTE

Rolf Pendall
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

October 2020



ABOUT THE URBAN INSTITUTE

The nonprofit Urban Institute is a leading research organization dedicated to developing evidence-based insights that improve people's lives and strengthen communities. For 50 years, Urban has been the trusted source for rigorous analysis of complex social and economic issues; strategic advice to policymakers, philanthropists, and practitioners; and new, promising ideas that expand opportunities for all. Our work inspires effective decisions that advance fairness and enhance the well-being of people and places.

Contents

Acknowledgments	iv
Land Use Reforms for Housing Supply	1
Introduction	1
Case A: Washington, DC	5
Case B: Portland, Oregon	14
Case Comparisons	27
Lessons on Process	32
Lessons on Implementation	42
Conclusions and Future Research	49
Notes	52
References	55
About the Authors	58
Statement of Independence	59

Acknowledgments

This report was funded by an anonymous donor. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at urban.org/fundingprinciples.

Additionally, we are indebted to our interviewees for their generous contributions of time, materials, and information. These wonderful people are David Alpert of Greater Greater Washington; Cheryl Cort of the Coalition for Smarter Growth; Anthony Hood of the Washington, DC, Zoning Commission; Phil Nameny of the Portland Office of Planning; Kol Peterson of AccessoryDwellings.org; Dan Saltzman of the Portland City Council; Eli Spevak of Orange Splot LLC; Jennifer Steingasser of the Washington, DC, Office of Planning; and Harriet Tregoning of the World Resources Institute.

We would also like to thank our advisory committee of David Morely, Jake Wegmann, and Debra Bassert for offering guidance and feedback as we designed and created the report. And, finally, we’d like to thank our team of reviewers—including Solomon Greene, Yonah Freemark, and Tina Stacy of the Urban Institute and Peter Van Doren of the Cato Institute—for their patience, encouragement, and sage recommendations.

Land Use Reforms for Housing Supply

Introduction

Since the housing crisis of the late 2000s, the nation's growing housing shortage has been a frequent topic of debate in housing policy circles. The rate of new household formation has outpaced housing production, leading to a gap of 850,000 units in 2018.¹ This shortage has increased the number of households spending more than 30 percent of their income on housing or living in smaller homes shared with too many people, and it has reduced people's ability to move to vibrant job markets, neighborhoods, and metropolitan regions (Manville, Monkkonen, and Lens 2020; National Low Income Housing Coalition 2020; Pendall 2000; Wegmann 2020). As decisionmakers push for solutions, reforming land use and zoning regulations has become a popular recommendation for increasing housing production. Communities' zoning ordinances and their housing production levels are clearly linked, but zoning reform efforts can be highly contentious and require extensive preparation and strategic political mobilization to be successful (Schuetz 2009). This report provides insights into the factors (e.g., planning, advocacy, negotiation, and decisionmaking) that go into first passing and then implementing land use reforms through two case studies. The first examines the process of allowing accessory dwelling units (ADUs)—or smaller, independent residential dwelling units located on the same lot as a stand-alone single-family home²—in Washington, DC, while the second turns to waiving impact fees for ADUs in Portland, Oregon. With more clarity on the key factors that affect zoning reform processes and their implementation outcomes, urban planners and city council members can better prepare for and target their efforts to achieve housing production.

BOX 1

Our Research Questions

- What was the process (e.g., of planning, advocacy, negotiation, and decisionmaking) involved in passing land use reforms?
 - What elements of regulatory implementation distinguish a successful reform (i.e., one that delivers housing production) from an unsuccessful one?
-

The literature on the passing of land use reforms has primarily focused on the participants and their motivations for participating. Researchers have found that participants in land use hearings are primarily homeowners, primarily wealthy, and primarily white (Trounstine 2020).³ Researchers have also documented what drives homeowner participation in land use politics. Specifically, they found that homeowners are content with their neighborhoods⁴; are afraid of the risk of change (Fischel 2001; Steele 1986); and want to preserve or maximize home values (Fischel 1992), minimize tax burdens (Hamilton 1975), and maximize the quality of public services (Bradford, Malt, and Oates 1969). Participating homeowners generally want to delay zoning changes or at least increase the cost incurred by anyone who would use new zoning code allowances (Einstein, Glick, and Palmer 2020). Those who participate are usually doing so because the benefits of participating (e.g., monetary, social) are greater than the costs (e.g., time, expertise, emotional labor), and those parties for whom the benefits are likely to be smaller than the costs will be underrepresented in negotiations (Furth 2019). For example, renters face fewer benefits from participating in local land use hearings than landowners do, and if they work irregular shifts and/or have less exposure to policymaking processes, they face higher costs to participate. Research finds that renters, as a proportion of the population, are underrepresented in political office and politics by as much as 30 percent (Einstein, Ornstein, and Palmer 2019). We also know that politicians frequently vote in a way that prioritizes homeowners' satisfaction over their regions' economic growth (Been, Madar, and McDonnell 2014). Very little literature explores the technical process that urban planners and policymakers follow when drafting and eventually passing land use reforms, much less the factors that affect the success of the reform's passage.

The mechanisms by which reforms affect the housing supply after passage are also relatively unexplored. Research has documented that exclusionary and restrictive zoning reforms affect housing production (Gyourko and Molloy 2014; Pendall 2000)⁵ and that a reform that increases the allowable housing on a plot (e.g., a transit-oriented development zoning reform) does not quickly increase housing supply on that plot (Freemark 2020). Housing economists have mapped out which zoning codes affect housing prices and segregation and how (Glaeser and Ward 2009; Rothwell 2019), as well as the additional cost that zoning permits place on builders (Emrath and Walter 2018) and the impact that an increase in supply eventually has on the cost of housing (Freemark 2020).⁶ Other economists have documented how long it takes for new housing supply to create a chain of moves that eventually create better, vacant homes for low-income families (Mast 2019) and where homes filter up (i.e., are sold to residents whose incomes are higher than the previous owner's) versus down (i.e., are sold to residents with lower incomes) (Liu, McManus, and Yannopoulos 2020). However, to our knowledge, no study has investigated the practical steps taken from a zoning reform's passage to a corresponding increase in homes.

Using qualitative interviews with key participants in the passage of reforms and a review of media accounts and legislative documents, we find that comprehensive planning is crucial for creating public narratives that embrace density and an increased housing supply and pave the way for reforms that support this vision. Without an institutionalized, shared narrative, the public debate over a city's future form takes place during zoning reform hearings. But incentives for and barriers to participation in those hearings are not distributed equally. Consequently, planners must actively educate the public and strategically present reforms in a way that provides a frame of reference for the public to understand its impact versus alternative options. Additionally, they will have greater success in reaching their housing goals by planning ahead to pass iterative reforms: monitoring the outcomes from initial reforms and using that data to motivate and substantiate future zoning reforms.

Our research also finds that zoning is just one factor in a complex system of structures that affect housing development. These factors include financing options, cost burdens, and risk calculations for developers; developer education; and code alignment (both within a zoning code and across other departments' codes). Each factor influences zoning reform outcomes and should be considered when a jurisdiction reforms its zoning to increase housing supply, especially if it wants to increase affordable housing (which does not always follow from increased supply⁷). When the "developers" are homeowners (who have much less technical capacity and capital), as is the case with ADUs, the barriers are particularly important to address, especially if ADU production is expected to become a significant source of housing production for a city.

Selection of Land Use Reform Case Studies

Land use regulation takes many forms (zoning and affordable housing laws, permitting fees and processes, facility requirements, etc.) and affects different building types (commercial, industrial, mixed development, multifamily residential, single-family residential, etc.). This study focuses on land use reforms related to ADUs because of their potential for housing production, their pervasiveness, and the level of publicity they receive. First, ADU land use regulations modify unit-per-lot capacity on single-family lots, which together are the vast majority of most cities' land and have the greatest potential for increased housing production in most jurisdictions.⁸ Reforms that might yield greater housing production (e.g., conversion of land zoned for single-family housing to land zoned for multifamily housing) have been used too infrequently to provide helpful lessons for cities more broadly, and our review of reforms that created new multifamily zones usually affected only small swaths of formerly commercial or industrial land. Additionally, ADU reforms appear to be growing increasingly popular as housing prices rise and pressure to legalize a historically accepted and widely used form of housing

grows (Freddie Mac 2020; Infranca 2019). The increasing frequency of ADU reforms offered relatively more options for illustrative case study comparisons. Finally, ADU land use regulations are widely publicized, which facilitates investigation into the planning, advocacy, negotiation, and decisionmaking that lead to their passage. Other reforms that affect single-family residential zones (e.g., setbacks, minimum lot sizes, density caps, height limits, open space designations) do not receive a significant amount of news coverage, according to our review of media reports.

With a reform type selected, we used a most-similar-systems case study design to select our cases. This design requires two cities that share characteristics but differ along the dependent variable—in this case, housing production—to uncover the factors that explain its presence or absence. Washington, DC, and Portland, Oregon, arose as two viable candidates. They have similar population trends, political dynamics, affordability concerns, and land constraints, and each reformed its ADU laws to encourage ADU production. However, the process by which the two cities passed reforms and their reform-related outputs differed. And these differences illuminated factors that affect community members' acceptance of the reforms and ADU production outcomes. Also, because each city adopted its reforms between 2010 and 2016, interviewees were able to easily recall the specifics that surrounded passage, and outcomes from the reforms had enough time to appear.

For these case studies, the research team conducted document review and semi-structured interviews. Document review covered journal articles, legislative and public records, and any materials that were related to the case and were publicly available. The interviews gathered the perspectives of representatives from the office of planning, journalists, housing affordability advocates, and relevant elected or appointed officials (city council members or zoning commissioners) in both cities.

Report Roadmap

This report begins with a deep dive into each city's case. The cases lay out the economic and political contexts that led to the adoption of the reforms; the actors, events, and accounts associated with the early, middle, and late stages of passage; and the resulting housing production and additional reforms that followed the central reform's passage. We then compare the two cases, as well as the ADU reforms with other reform types, and place our cases in the context of the broader US land use reform landscape. Using comparative analysis, the final two sections draw out key lessons about factors that affect the successful passage of the two reforms as well as factors that determine the level of housing production that stems from the reforms. We end the report with a brief summary of our findings and recommendations for further research into land use reform processes.

Case A: Washington, DC

Between 2007 and 2016, the Office of Planning (OP) in Washington, DC, overhauled the District's zoning code. The reform package contained a section that allowed the production of ADUs throughout the city in an effort to increase density and ensure housing remained affordable for longtime residents. Although intended to take only three years, the zoning overhaul process ballooned to nine because of political pressure for delays and more community engagement on hot-button issues in the reform package. In addition to allowing ADUs, the reform package would reduce required parking spaces per housing unit (parking minimums), allow corner stores in residential areas, relax siting restrictions on theaters, and alter how building heights were calculated. In the end, the city voted to allow ADUs, but with significantly more restrictions on their production than advocates wanted. In the wake of these restrictions, along with compounding barriers outside the zoning code, ADU permitting activity in Washington, DC, has remained limited.

Reform Origins: Context and Goals

In 2001, Washington, DC, emerged from federal financial and legislative control (to corral the local corruption of the 1990s) and regained independent home rule. The mayor at the time (Anthony Williams) supported updating the city's comprehensive plan to emphasize livability and quality of services. An overhaul of zoning regulations was proposed as part of the new comprehensive plan in 2006. Written in 1958 and amended more than 1,000 times, the zoning code had grown so complicated that residents needed to hire a lawyer to understand what they could do with their homes, according to interviews with housing advocates. Regarding ADUs, the comprehensive plan recommended the following:

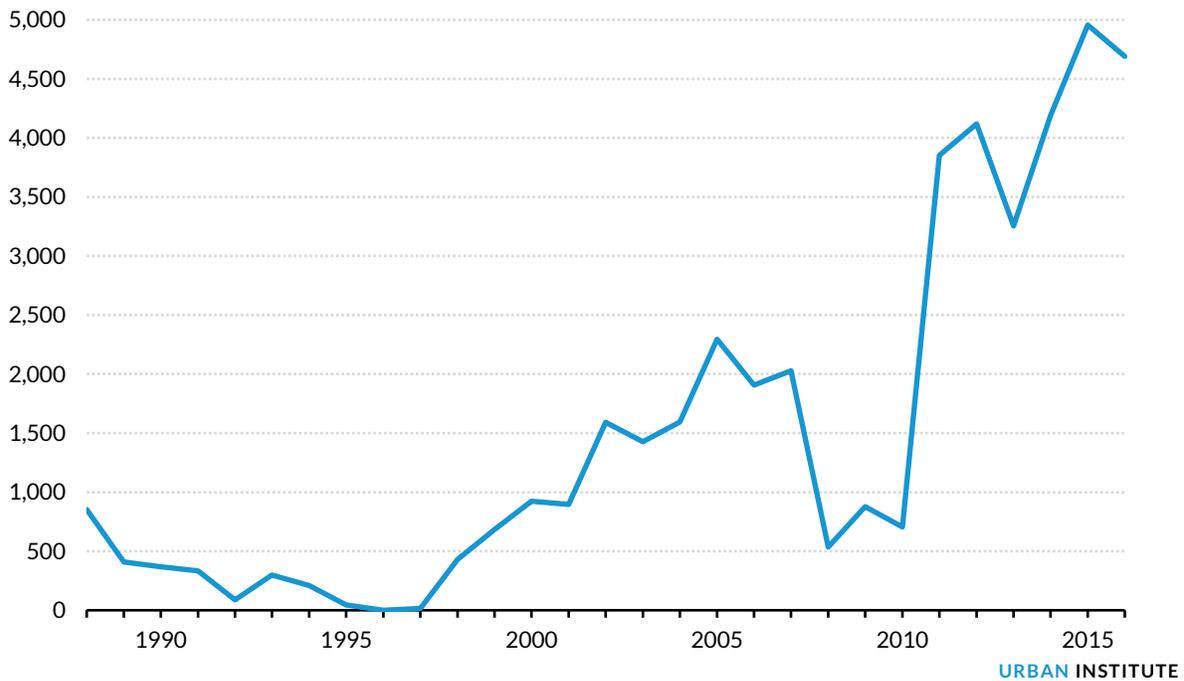
Explore changes which would facilitate development of accessory apartments (also called "granny flats" or in-law units), English basements, and single room occupancy housing units. Any changes to existing regulations should be structured to ensure minimal impacts on surrounding uses and neighborhoods (District of Columbia 2007b, 5-20).

The original zoning text allowed attached ADUs (a separate apartment with a separate entrance and a full kitchen and bath attached or internal to a main home) only in the largest homes (at least 2,000 square feet) in single-family zones on lots of at least 4,000 square feet. Any external ADUs (apartments installed in buildings separate from the main house, like garages or carriage houses) could be occupied only by a domestic servant.⁹

In the years since the ADU regulations were originally set, population and demographic changes in Washington, DC, created a need to increase the housing stock. After hitting a low point in 2000, the city’s population increased more than 1 percent, on average, each year through 2006. At the same time, the number of building permits rose at a similar rate (figure 1). And political leaders had set goals to revitalize the District’s economy by attracting and retaining more residents (Rivlin 2003).

FIGURE 1
New Private Housing Permits in Washington, DC, 1988–2016

Annual total



Source: “New Private Housing Units Authorized by Building Permits for District of Columbia [DCBPPRIV],” FRED, Federal Reserve Bank of St. Louis, last updated September 24, 2020, <https://fred.stlouisfed.org/series/DCBPPRIV>.

The District’s demographics had also changed significantly. The average household size decreased 34 percent between 1950 and 2000 (from 3.2 people per household to 2.1).¹⁰ Forty-four percent of households were only one person, and the city needed more and smaller units to accommodate them (DC Office of Planning 2013). The District’s population was, on average, getting older, and an influx of wealthier, white residents was increasing housing prices in many previously affordable neighborhoods.¹¹ The core stated goal behind the 2006 comprehensive plan’s proposals to increase the amount of housing in the District was to ensure that the price of housing would not increase too quickly and would remain affordable to longtime residents (Washington, DC, cannot annex new territory and

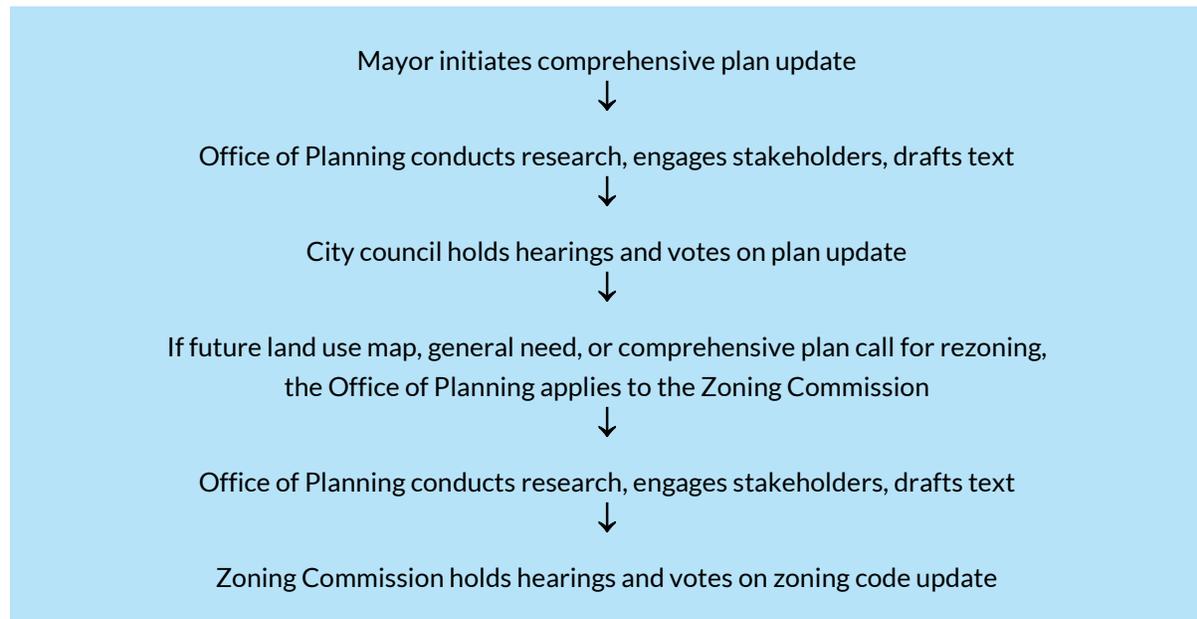
faces constraints because of the large amount of land in the District that is owned by the federal government) (District of Columbia 2007b).

These population and demographic changes and the comprehensive plan's recommendations meant the city's zoning code needed to be reviewed and potentially reformed (box 2).

BOX 2

Zoning and Land Use in Washington, DC: Planning Relationships and Political Structure

Planning and zoning do not always affect each other directly, and the local government structure in Washington, DC, exemplifies this division. The flow below shows how the mayor, elected city council, Office of Planning, and appointed Zoning Commission work together to create comprehensive plans and how these relate to changes in zoning laws.



As a first step for the District's zoning reforms after the 2006 comprehensive plan update, the OP at the direction of the mayor in 2007 launched an initiative called the zoning regulation review (ZRR) to create a new, integrated zoning code. At the most basic level, the reform simplified all the zoning districts into a new set of easier-to-understand, coherent base zones. Several neighborhoods had "overlays," or additional or special zoning rules on top of the base codes, and these multiple (sometimes overlapping) overlays had become extremely complex. More specifically, the new code set up new,

clean base zones for each area that reconciled and compiled all the existing rules (both base and overlays) so property owners would not have to reconcile layers of potentially conflicting rules.

In addition to this rationalization and simplification, the ZRR included three main changes to the codes that emerged from a review of variance requests that were regularly approved by the Board of Zoning Adjustment (the body that reviews and votes on one-off deviations from the zoning code):

- reducing parking minimums to decrease the cost of development
- legalizing ADUs to encourage infill development (development of open land within a previously built-up area already served by infrastructure and utilities that increases compact, efficient use of that land)
- allowing corner stores

ADUs were included in the ZRR as one recommendation in the 2006 comprehensive plan for reducing barriers to housing production. Planners said in interviews that they thought ADUs were especially promising as a housing reform type. According to one interviewee, ADUs hit “a sweet spot” because they offer financial security for longtime resident owners, subsidize ownership for new homeowners, cost less to rent than a primary home and thus facilitate aging in place and income diversity, and increase density in a way that aligns with the character of most neighborhoods. Also, OP staff members who had reviewed the regularly approved requests for exceptions to the old zoning code noted that ADUs were almost always approved with a set of consistent conditions.

Early Stages: 2007–11

During the early stages of the ZRR (2007–11), the focus was almost exclusively on gathering community input and consulting with as many stakeholders as possible to generate the first draft of the revised zoning code.

As one of its first moves, OP established an advisory task force of 25 volunteers who represented groups such as the Committee of 100 on the Federal City and Coalition for Smarter Growth¹² and who had been recommended by the commissioners of each Advisory Neighborhood Commission (ANC).¹³ Interviewees reported that because the task force was a forum for influencing the content of the reform and because the positions were volunteer, representation skewed toward those with strong motivations to participate (i.e., the wealthy and people focused on maintaining lower-density development patterns in the District).

In 2008, outside the task force, the OP met with 20 public working groups that each had a specific focus (e.g., height, downtown boundaries). In 2009, these groups forwarded their recommendations to the task force, which then deliberated with the OP for two to six weeks on what the text of the new zoning regulations should be. That new text was made available for a 45-day public comment period and then revised again. The proposal then appeared before the Zoning Commission (ZC)—which ultimately votes on and approves zoning code changes proposed by OP—for public hearings on each of the 20 subject areas. The ZC gave preliminary approval to the 10 subtitles that came out of those hearings in summer 2011. However, rather than transitioning into a final vote by the ZC, task force members and residents pressured the OP to hold more meetings and gather more public input on the ZRR text as a whole.¹⁴ This led to two more years of task force meetings, working group meetings, and public meetings with communities and ANCs across the District.

Evolution of the Process: 2012–14

By July 2013, the OP had drafted and presented a complete version of the proposed zoning code to the ZC for a series of public hearings to be held on different topics and within different neighborhoods. In late November 2013, the ZC held a public information hearing on the then-current text of the ADU reform and proposed “taking the show on the road” by holding hearings across the District’s eight wards in February 2014 and open houses during which OP staff members would be available to answer questions.¹⁵

The District’s Office of Zoning also supplied educational packets to all ANCs, posted the proposed text on the Office of Planning and Office of Zoning websites, posted notices of hearings and presentations within thousands of recreation centers and places of worship, provided paper copies of the proposed text in libraries, sent a mailer to all ANCs and citizen or civic associations, and made recorded presentations available through the DCTV public access channel.

However, several people and groups (e.g., from the Committee of 100 on the Federal City or the DC Zoning Changes Network¹⁶) claimed that the ZC had spent a lot of time and money on notifications and meetings without actually educating the broader public about the proposed changes. One group held a rally against the zoning reform. Organizers cited fears of displacement and concerns that planning officials had not tried hard enough to engage disadvantaged residents or to translate zoning jargon so low-income communities could understand the reform’s implications for their neighborhoods and voice their opinions in an informed manner.¹⁷ Other people spread false information (e.g., inaccurate or exaggerated forecasts of the reform’s impacts) via flyers or emails to mobilize residents to attend

hearings to oppose the changes.¹⁸ Planning official interviewees reported that a few attendees at multiple hearings opposed the ADU revisions because they were afraid homeowners would be forced to rent their basements to people, would face “strangers” in the alley, or would have neighbors peering into their windows from across alleyways. To combat these effects, pro-housing advocates such as Greater Greater Washington and the Coalition for Smarter Growth used their platforms to explain the reforms and mobilized current, historically permitted ADU owners to attend hearings to support ADUs.

The ZRR process, overall, had roughly one full year of intensive public hearings and comments (October 2013 through September 2014). During that time, the OP received nearly 100 comments or testimonies from residents about ADUs, with 83 percent supporting by-right (or automatically permitted if compliant with the zoning criteria) attached ADUs and 73 percent supporting by-right external ADUs. Table 1 lays out the number of people who submitted testimony either in opposition to any form of ADU (requiring either a special exception or a full ban for either attached or external ADUs) or in full support of ADUs in general (attached and external). Only one person from wards 7 and 8, two of the District’s predominantly Black wards, submitted testimony on ADUs. Although comments on other ZRR topics were submitted from these two wards, these neighborhoods represented a small share of the ZRR’s total comments.

TABLE 1

Support and Opposition for Accessory Dwelling Units in Washington, DC

Comments and testimony sent to the Office of Planning from October 2013 to September 2014, by ward

Ward	# of comments and testimony	% support	% oppose	Population	2010 median household income (\$)	Population per square mile	% white
1	13	100	0	91,498	73,006	36,599	58
2	4	75	25	92,509	90,859	14,455	69
3	32	56	44	84,869	103,936	8,160	82
4	14	73	27	86,660	63,085	9,737	31
5	8	100	0	90,479	51,970	8,870	31
6	11	100	0	103,316	86,612	18,126	49
7	1	0	100	80,951	38,807	9,637	3
8	0	n/a	n/a	80,552	31,442	9,259	4

Source: Authors’ analysis of case records from the Washington, DC, Office of Planning and US Census Bureau data.

Notes: Support = general or specific statements to allow all ADUs (both attached and external) by right (automatically permitted if compliant with the zoning criteria). Oppose = require special exceptions for or ban either attached or external ADUs (even if supported the other ADU type by right). An additional 13 people submitted testimony and comments but did not specify their ward of residence.

Concurrent with this public review process, the OP wanted to pilot an approach that allowed neighborhoods to customize their zoning codes; this took place in the District neighborhood of Georgetown from 2012 to 2014 (box 3).

BOX 3

Georgetown's Zoning Regulations Review Process

Georgetown was the first Washington, DC, neighborhood to volunteer in 2012 to customize its zoning code. The OP agreed, in part because the neighborhood's status as a National Historic Landmark makes development review there more complex than in many other parts of the District. It took the neighborhood two and a half years to draft text, which ultimately contained only minute differences from the OP's proposed text for the rest of the city. No other District neighborhood developed a plan (although Lanier Heights and Trinidad both later inquired and began the process). As an OP representative explained, "These zoning changes for specific neighborhoods don't happen citywide to each neighborhood; they happen as a neighborhood kind of comes together and says that they want to do something."^a

^a Government of the District of Columbia Zoning Commission, minutes for special meeting, October 7, 2014, <https://app.dcoz.dc.gov/trans/141007zc.pdf>.

Wrapping Up the Process: 2014–16

OP presentations on the draft text published in June 2014 led to another round of public hearings and an extra comment period in late 2014 at the request of Mayor Vincent Gray, who took office in January 2011.

By the end of 2014, the record closed with 867 individual submissions of comments. These ranged from blanket objections to the ZRR and targeted criticisms of the ADU proposal to approval of the ADU proposal and the ZRR as a whole. Among those who opposed the ADU proposal were several powerful and vocal people (including one council member and three ANC commissioners) who wanted the ZC to force any homeowner who wished to build an ADU to go through an expensive and arduous special exception review process¹⁹ that would have allowed neighbors, the OP, and ANCs to influence how (or whether) the homeowner could do so. Proponents, meanwhile, recommended further reducing minimum lot size requirements and allowing ADUs (attached or external) to be built without special approval (as long as they met the specified requirements) to promote as much housing development as possible.

In 2015, the ZC voted to publish the near-final text that the OP had created in the DC Register for additional comments and resolved a few remaining details with federal agencies in the District. On January 14, 2016, the ZC voted and finalized its approval of the ZRR, to be enacted in September 2016. In the end, the version passed made it easier for homeowners to build attached ADUs but much harder to build external ADUs than the 2011 version would have allowed (table 2).

TABLE 2
Washington, DC, Accessory Dwelling Units Code: Proposed versus Passed

Proposed (2011)	Passed (2016)
<ul style="list-style-type: none"> ▪ One ADU per lot ▪ By-right development in principal home or accessory building (except in Georgetown, where a special exception is required for both) ▪ A maximum of six occupants on the lot, and one must be the owner ▪ Requires 2,000 square feet of gross floor area ▪ ADU may not occupy more than 25 percent of floor area ▪ External ADUs must have access via an alley or yard, must be separated from the principal unit by 30 feet, and can have a deck or balcony if it is entirely within the permitted footprint and faces away from the principal or neighboring buildings 	<ul style="list-style-type: none"> ▪ One ADU per lot ▪ By-right development in principal home (except in Georgetown, where a special exception is required); special exception required for an ADU in another building ▪ A maximum of six occupants on the lot, and one must be the owner ▪ Requires 1,200 to 2,000 square feet of gross floor area (depending on zone) ▪ ADU may not occupy more than 35 percent of floor area ▪ External ADUs must be within 300 feet of a street that is at least 15 feet wide, have a permanent passage to the street, and may not have a roof deck; if constructed in a new external building, the owner must wait five years before renting it

Source: Records from the Washington, DC, Office of Planning.

Note: By-right developments are automatically permitted if they are compliant with zoning criteria.

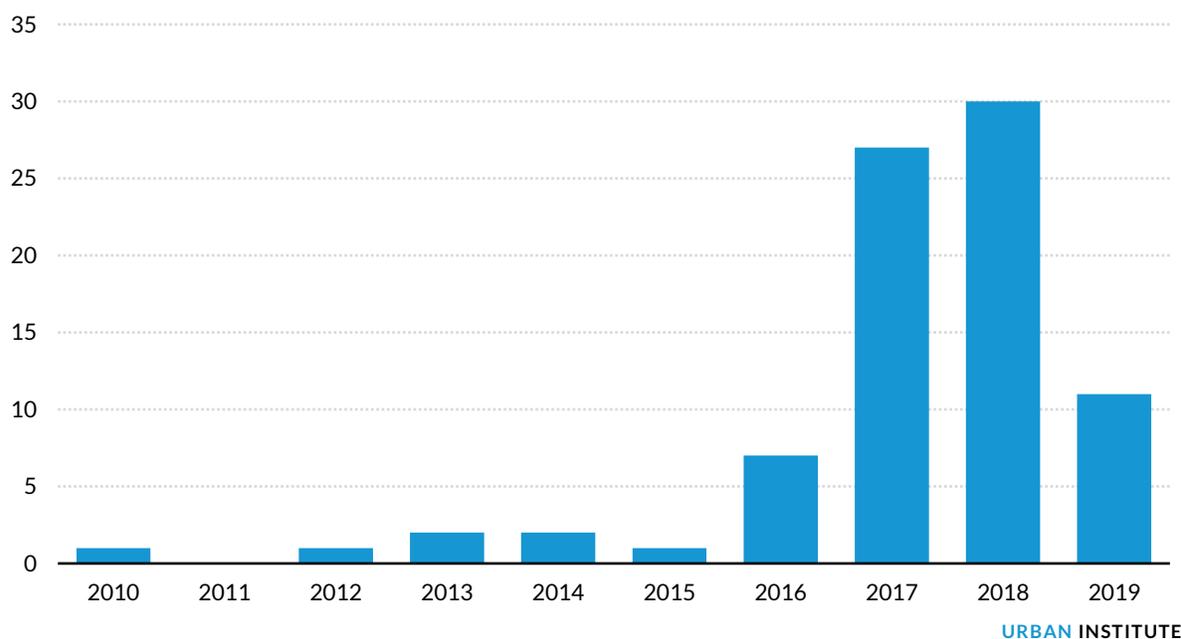
Counting the ZC’s initial round of hearings on the proposed text, its road-show hearings, and the final hearings, the ZRR process involved 81 public working group meetings, 40 public ZC meetings, and 19 public hearings before the ZC’s preliminary approval of the ZRR in 2011. Between passage of that preliminary text and the final approval in 2016, there were an additional 16 OP open houses, 81 ANC meeting presentations, 18 public hearings, and 32 public ZC meetings.

Reform Implementation and Outcomes

Although the reform passed, many of the people we interviewed lamented that the code had not delivered the units they had hoped for. Even though workshops have been held on increasing ADU production in the District²⁰ and architects have marketed the option,²¹ the highest number of annual permits issued to homeowners to build ADUs since the rules changed is 30 (figure 2). Permit issuance

increased in 2017 and 2018, the two years that followed the reform, but dropped in 2019. According to one OP staff member, interest in building an ADU has been dampened by a lack of familiarity with ADUs among the public, along with complications related to financing their construction, the difficulty of navigating conflicting building codes, and the requirement that owners live on the property. In 2019, the United Planning Organization began a pilot program called ADU DC²² to boost production and equity; it pairs low-income and longtime District residents with financing, “how to” development and permitting guides from the Coalition for Smarter Growth, and resources for managing their property to boost home values and incomes.²³ However, the pilot was designed to produce only two affordable units in total. Considering that Washington, DC, faced a housing production gap of 68,800 units (with 17,500 of those units needed for low-income and extremely low-income households) between 2015 and 2030, the 68 units that were permitted from 2017 through 2019 are far below the level that would have a meaningful effect on housing prices and affordability in the city (Turner et al. 2019).

FIGURE 2
Accessory Dwelling Unit Permits Issued in Washington, DC, 2010–19



Source: Washington, DC, Department of Consumer and Regulatory Affairs permit center data 2020.

Note: The new accessory dwelling unit rules went into effect in September 2016.

Case B: Portland, Oregon

After 15 years of incrementally reforming ADU regulations in the zoning code, the Portland City Council implemented a trial system development charge (SDC) waiver in 2010. This pilot policy—quickly devised and passed by city commissioners (the equivalent of city council members)—attempted to spur ADU growth by waiving \$10,000 to around \$16,500 in impact fees (which cover public infrastructure costs).²⁴ Advocates used the waiver as an opportunity to increase education and outreach to potential developers, investors, and builders. The combination of Portland’s reformed baseline zoning code, advocacy efforts, and the waiver resulted in an increase in the number of ADU permits issued of more than 150 percent from 2010 to 2013. The SDC waiver pilot was extended in 2013 and again in 2016, and impact fees were officially waived for all ADU developers in 2018. The waiver’s success at generating ADU production has been credited with spurring state-level ADU zoning legislation.

Reform Origins: Context and Goals

Portland’s land use policies must not only align with citywide comprehensive plan goals but also support the regional governing body’s Urban Growth Management Functional Plan and state land use goals. Oregon’s history of strong pro-density housing and land use planning originated in 1973 with Senate Bill 100, which created urban growth boundaries (UGBs, or boundaries around cities that mark the allowable end of dense development) and statewide land use planning goals (box 5). City housing and land use planners in Portland knew that for city comprehensive plans to be ratified by the state, the zoning code had to accommodate a 20-year forecast of housing needs and could not discriminate against needed housing types.

Given this state policy context, Portland is, unsurprisingly, a national leader in ADU development. The city is home to one of the largest and fastest-growing ADU markets in the country, with permits issued for 4,047 ADUs between 1995 and 2019.²⁵ The city’s first ADU policy passed in 1981 as a relatively restrictive program that allowed homeowners in some neighborhoods to convert spaces in their homes into ADUs. This policy was codified 10 years later as an added section in the new 1991 zoning code, and the allowance of basement conversions spurred a long process of incrementally reforming and loosening restrictions to encourage additional development. Between 1991 and 2010, the city council approved reforms that gradually removed requirements for homeowners to live on the same property as the ADU, increased the limits on ADU size, and allowed construction of external ADUs (box 4). One Portland planner who was involved in the initial incremental ADU zoning reform process stated, “As we updated our ADU standards, we had to be aware not only of the statewide goals, but all the other goals at the regional and local level.”

BOX 4

Incremental Reforms to Portland's ADU Zoning Code

Portland's first zoning laws to allow ADUs evolved over time to support widespread ADU development. Below, we highlight milestones in the process.

- **1997–98:** Portland proposed removing owner-occupancy requirements (which mandated that to have an ADU, a homeowner must live on the property full time) and allowing by-right external units across the city. City commissioners received testimony against the changes from neighborhood housing land use committees and residents concerned about outside speculation and challenges to traditional single-family zoning. They also received testimony in favor of the changes from environmental groups, fire safety officials, and residents advocating for easier permitting.^a After weighing the concerns that were expressed against the comprehensive plan's goals and considering that opposition had primarily come from neighborhoods that were disproportionately white and wealthy, the city council voted to allow external units citywide and to remove owner-occupancy requirements in most neighborhoods, excluding a historically Black area called the Albina overlay district in North and Northeast Portland.^b
- **2003:** Portland's Bureau of Planning conducted a monitoring study that found ADUs in the Albina overlay (where owner-occupancy was required) had fewer owners who lived on the property (35 percent owner-occupied) than ADUs in areas without the requirement (90 percent owner-occupied). This showed that the owner-occupancy regulation was ineffective and that the speculative investment that opponents feared had not materialized, and the city dropped the requirement.^b
- **2004:** The city council approved multiple reforms to allow garage conversions, reduce setbacks, and relax design standards related to exterior finishes, trim, roof pitch, and windows.^c
- **2010:** Portland's planning department heard that homeowners on smaller lots wanted to build ADUs but could not because of minimum lot size and minimum ADU square footage requirements. City council approved the proposed adjustment to the ADU code that adds a special provision to allow for larger ADUs on lots less than 2,000 square feet.

^a City of Portland, Oregon, public comments submitted for Ordinance 171879 (December 16–17, 1997), <https://efiles.portlandoregon.gov/Record/2448612/>.

^b City of Portland, Oregon, Ordinance 178172 (February 4, 2004), <https://efiles.portlandoregon.gov/Record/2298632/>.

^c City of Portland, Oregon, Ordinance 178927 (December 1, 2004), <https://efiles.portlandoregon.gov/Record/2620220/>.

During this early period of incremental reform, interviewees reported, ADUs had steady support from advocates of aging in place and environmental sustainability and from green builders who touted the benefits of lower per-capita emissions with increased population density (Carlin 2014).²⁶ Land-use policy watchdog groups, such as the nonprofit 1000 Friends of Oregon, provided an additional layer of

planning accountability. There was organized opposition to many of these reforms, however, particularly the 1998 removal of owner-occupancy requirements. According to one planner, Portland's planning department analyzed comments and found that much of the opposition came from residents of predominantly white neighborhoods of single-family houses. Nevertheless, state, regional, and local housing goals, accountability mechanisms, and broad acceptance of pro-density development in the local and state planning system seemed to outweigh the concerns as commissioners passed the reforms (box 5).

BOX 5

Land Use Planning in Portland and Oregon

Oregon and the city of Portland have pioneered many now commonly accepted land use planning practices, including imposing comprehensive plan mandates and establishing a regional governing body. Both practices establish a culture that prioritizes balancing density and nature and creates state accountability and regional planning oversight. Notable planning actions include the following legislative, governance, and policy efforts.

- **Senate Bill 100:** This 1973 state bill mandated that cities and counties create comprehensive plans in line with 19 statewide land use planning goals. Goal 10 focuses on the intersection of land use planning and housing and requires cities with populations of more than 2,500 to assess housing needs to “look beyond single-family detached housing.”
- **Metro:** Portland has the only directly elected regional governing body in the country. The Metro Council (Metro) oversees transportation, solid waste, regional parks, and land use in the three core counties of Portland's metropolitan area. It also enforces statewide land use planning goals, manages regional affordable housing bonds, and limits urban sprawl.
- **Urban growth boundary:** Portland passed the UGB to promote compact development within the boundary and to protect farm, forest, and natural lands outside of it. Oregon law requires Metro and all Oregon counties outside Metro to plot a UGB with sufficient land for 20 years of urbanization.
- **Metropolitan Housing Rule:** This Oregon state law,^a adopted in 1981, requires jurisdictions in Metro to provide greater certainty in the development process, establish minimum residential densities, and ensure that all but the smallest cities zone land to allow for a 50-50 mix of single-family and multifamily housing. While the UGB encourages density, the Metropolitan Housing Rule makes development more predictable and more likely to meet goals for target housing price ranges and rent affordability set by another Oregon statute.^b

^a Or. Rev. Stat. § 197.040, <https://www.oregonlaws.org/ors/197.040>.

^b Or. Rev. Stat. § 197.303, <https://www.oregonlaws.org/ors/2009/197.303>.

The years of incremental zoning reform laid the regulatory groundwork for ADU development, but the city issued only 30 permits on average annually between 1995 and 2009. Although challenging restrictive zoning regulations was a necessary first step, by the time it had developed the most permissive ADU zoning policy in the country (around 2009), Portland still faced barriers to increasing production. ADUs were relatively unknown outside advocacy circles, and first-time potential developers who knew about the new reforms found the high up-front costs, limited financing options, and complicated permitting process to be significant barriers.

The Portland City Council began focusing on removing barriers to ADU production in response to overall slowing housing production trends that began in the mid-2000s. Supply issues only worsened after the Great Recession. Between 2000 and 2010, developers produced only 0.89 units for every new household formed. The impact of the housing market crash—eliminating jobs, reducing in-migration, and lowering effective housing demand—led to a drastic decrease in multifamily housing construction. It dropped from an already insufficient 3,100 units per year from 2003 to 2007 to just 710 units per year from 2009 to 2010 (HUD 2016). From 2010 to 2016, one- and two-person households grew disproportionately, creating a housing supply mismatch and adding pressure to the housing market (Baron et al. 2018). Within this context of strong demand for rental housing, rising prices, and a regional growth-management system that promoted infill, Portland was bound to consider ADUs, among other solutions, to meet its housing needs and neighborhood goals.

Early Stages

In 2010, the Portland Bureau of Planning and Sustainability completed a housing needs analysis and buildable lands inventory to provide information for the city's second-ever comprehensive plan. Planners knew that for the comprehensive plan to be ratified by the state, they would need evidence that their policies supported the state and regional goals of sufficient housing provision. At the same time, Portland city leaders were facing pressure to address the tightening housing market and spur more economic growth in the aftermath of the recession. The Home Builders Association of Metropolitan Portland had also begun lobbying the city council to create an environment for more development opportunities and construction jobs.

A commissioner who was then living in an ADU showed particular interest in removing barriers to ADU development. His enthusiastic support, coupled with ongoing advocacy efforts by green builders and urban infill supporters, helped educate politicians about development challenges, especially up-front capital costs and a lack of financing options for first-time ADU developers. At the time,

construction costs ranged from \$20,000 to \$400,000, and the financing products available, like cash-out refinancing and home equity lines of credit (borrowing from a homeowner's equity), did not take future rental income into account. These limited options made cash savings the most popular financing method for ADUs, locking many homeowners with insufficient savings out of the market (Peterson 2018). We heard from interviewees that many developers who did have access to up-front capital for construction were unlikely to budget for “soft costs”—like permitting fees, architecture services, and land use attorney fees—which research finds could make up 20 to 30 percent of total development costs (Emrath and Walter 2018). The commissioner's belief in the promise of ADUs led him to coordinate with other commissioners to create a land use policy to address these barriers to ADU development.

Commissioners conceived of a waiver that removed impact fees for ADUs. Impact fees are charged to developers of new residential or commercial developments to cover a portion of the city's costs related to building and maintaining capital facilities and meeting growth-related needs. In Portland, these impact fees were called system development charges, and the ADU SDCs funded capital improvement projects for four bureaus: Portland Parks and Recreation, Portland Bureau of Transportation, Portland Water Bureau, and Environmental Services. Commissioners connected with leaders in these four bureaus to understand the feasibility of the waiver pilot proposal and the impact it would have on their revenue. The bureaus had already begun considering updates to their SDC models as a result of a series of SDC reform studies commissioned to encourage development in line with the regional 2040 Growth Concept (Galardi Consulting 2007). In light of these studies, the bureaus had reformed some of their SDC regulations, providing credits, exemptions, or per-unit fee reductions for different building types to encourage regional goals like reducing car ownership and improving stormwater drainage (DRAC 2009). But SDCs were still a substantial financial burden for homeowners interested in developing or registering ADUs. The SDC waiver proposal would eliminate water fees that ranged from \$1,760 to \$4,401, transportation fees of \$1,092, parks and recreation fees that ranged from \$4,688 to \$8,152, and environmental services fees of \$2,816—totaling about \$10,000 to \$16,500 per unit (DRAC 2009).

Having recently reassessed the city's SDC models, the council saw an ADU waiver as a coherent outgrowth of that process: using fee flexibility to encourage growth. A small pro-ADU advocacy group (fully staffed by volunteers) mobilized in support of the waiver weeks before the city council was set to vote on it in March 2010. The advocates lobbied the Bureau of Development Services (BDS), which is responsible for calculating, collecting, and distributing impact fees. BDS created a short report about

the waiver's feasibility, and advocates prompted supporters to submit comments and testimony at the meeting.

On the day of the hearing, BDS's supervisor of land use services, the coordinator of SDC fee collection, presented his research into regulatory and fiscal considerations related to the SDC waiver pilot. Because the waiver's impact would be felt the most by BDS, the supervisor's presentation and support for the waiver carried weight with the council. His presentation made the following key points (Hayakawa 2010):

- **Restrictive zoning was no longer the biggest barrier to production.** A review of nearly 50 recent ADU appeals for land use adjustments were said to be site specific, meaning no consistent zoning regulation was standing in the way of development.
- **Incentives for increasing ADU development furthered citywide housing goals.** ADUs could “address a number of goals and policies...[including] future population growth and increased housing choice, diversity, affordability and economic development.”
- **ADUs had not negatively affected existing infrastructure.** SDCs are meant to offset the potential impact of new property uses on city services, and there had been no complaints about or anecdotal evidence of infrastructure problems related to the 152 ADUs that had already been developed.
- **SDCs discouraged registering illegal rentals.** BDS suspected that as many as 22 percent of all ADU permits were conversions of illegal rentals and that SDCs were preventing the registration of many more. One study of rental housing in West Coast cities estimated that illegal secondary units made up 2 to 10 percent of total housing stock (Wegmann and Nemirow 2011).

The BDS representative's presentation eased concerns about potential negative effects on BDS revenue and city infrastructure and framed the waiver as a low-stakes solution to large-scale planning goals. The acknowledgment that SDCs had likely increased the number of unregistered rental units also helped frame the SDC waiver as an effective way to address housing quality, code compliance, and public health and safety. Unsurprisingly, commissioners responded positively. No public opposition was recorded at the hearing or in the six submissions of public testimony, and the SDC waiver pilot resolution passed unanimously.

This fee waiver was conceived of and passed by city council in weeks and required a lower burden of proof and less community engagement than formal zoning reforms do (box 6). Because

commissioners crafted the waiver as a two-year trial and two SDC studies had recommended exemptions to encourage urban growth, legislators did not feel the need to conduct extensive community engagement or impact studies before approving the proposal. Unlike a formal zoning reform process, which usually includes outreach and multiple opportunities for public input and discussions, the waiver required only a single public city council hearing.

Less than a week after the SDC waiver was passed, the city council voted to adopt an ordinance to amend the zoning code that contained a provision to increase the maximum size of ADUs from 33 percent of the floor area of the main house to 75 percent.²⁷ This reform was part of a larger zoning amendment package originally proposed in 2008. Unlike the comparatively quick SDC waiver passage, ADU advocates had pushed for years for this reform, arguing that the 33 percent rule prevented homes on smaller lots from developing reasonably sized ADUs and prevented lower-income homeowners from building and benefiting from these units. Although ADU supporters believed the amendment would help expand production, the fee waiver created an opportunity to address a different barrier to development: high up-front costs. And while other parts of this package received suggestions for revisions from participating residents, the ADU provision was written and passed uncontested.

BOX 6

Portland's Zoning and Land Use Reform Process versus the SDC Waiver Process

In Portland, some land use reforms, like the system development charge waiver, take at most an optional hearing and a city council vote to pass a resolution. In contrast, zoning reforms involve a larger group of stakeholders and often take years of planning, engagement, and research before they are adopted, let alone implemented. The following are the key stakeholders in zoning reform in Portland:

- **Bureau of Planning and Sustainability:** Planning staff draft the initial zoning code revision work plans, reports, and proposed zoning code amendments. This bureau is also responsible for notifying the public and holding public hearings, ensuring that a reform is in line with the comprehensive plan, engaging with other departments, coordinating with the state, and addressing feedback from all parties.
- **Planning and Sustainability Commission:** This 11-member board is appointed by the mayor and confirmed by the city council. The commission holds public hearings, discusses issues, and ultimately votes on whether to recommend zoning text amendments to the city council.
- **City council:** Portland has a commission form of government. The elected mayor, four elected commissioners (or council members), and an elected auditor make up the six-member city council. The council conducts legislative (e.g., laws and budgets) and administrative (e.g., bureau

oversight) business and can act as a quasi-judicial body (e.g., hear land-use appeals). The council also votes on amendments to the zoning and land use codes.

- **Oregon Land Conservation and Development Commission:** The members of this seven-seat volunteer commission are appointed by the governor and notified of large-scale zoning amendments. The commission ensures local land-use goals comply with state goals.
- **Neighborhood and community groups:** Portland's 95 neighborhood associations, which are made up of volunteers and act as liaisons between residents and the city, are notified of zoning reforms and can recommend support of or file appeals to land use decisions. Hearing notifications are also sent to other interested parties, like business associations.

Beyond the players involved, the process to change the zoning code requires multiple rounds of engagement, studies, and voting. The following depicts the steps in Portland's zoning reform process:



Although the political process for passing the SDC waiver was simpler than the process for passing zoning and land use reforms, one advocate said wide opposition would have been unlikely even if residents had been fully aware of the resolution. That is because the minimal ADU development that had occurred thus far had not challenged the overall function or feel of single-family neighborhoods and secondary units often went unnoticed. Also, neighborhood associations and homeowners who had historically opposed ADU zoning reforms were more likely to be focused on organizing against new multifamily developments or large-scale rezoning. Some interviewees attributed the lack of organized

opposition to the SDC waiver to a prominent local media narrative that emphasized the benefits of ADUs for homeowner-developers as a way to age in place or accommodate a relative with a disability, rather than casting ADUs as a way to diversify wealthy neighborhoods by adding housing affordable to people with lower incomes. ADU advocates recognized that the former angle framed ADUs as a “palatable” alternative to other forms of residential development that increased density in single-family neighborhoods, like fourplexes or multifamily developments. Advocates also believed ADUs could spur conversations about the benefits of allowing more units in neighborhoods zoned for single-family housing.

More Pilots

After the city council passed the SDC waiver pilot in 2010, advocates began to organize and advertise the change. The small group of volunteers who had historically advocated for ADU reforms grew to include additional affordable housing advocates, builders, and architects. The group organized educational and marketing efforts, including tours, first-time developer workshops, an ADU specialist designation for real estate agents, political testimony trainings, and media coverage (Peterson 2018).

According to planners and advocates involved in the process, the combined waiver incentive and educational outreach efforts led to an increase in ADU production. In 2009, an average of 2 ADUs were permitted monthly. When the waiver came up for city council renewal in 2012, the average was close to 15 ADUs per month. The city council viewed this increase as a successful post-recession housing production method and pointed to other cities across the state, including Eugene, that had replicated the policy. The council voted unanimously to extend the pilot for three years and did not receive any public pushback at the hearing.²⁸ Commissioners, planners, and advocates who were interviewed stated that they were proud of the policy’s apparent success and that by the early 2010s, public recognition of ADUs as a new and legitimate form of development had increased.

As ADU production increased, the Oregon Department of Environmental Quality (DEQ) promoted their development in Portland as a way to reduce per capita energy and material consumption through smaller living. The DEQ convened a formal ADU advisory group of nearly a dozen handpicked advocates, owners, and experts and funded a survey of ADU owners in the Oregon cities of Portland, Eugene, and Ashland in 2013 (Portland State University Survey Research Lab 2013). Advocates involved in early lobbying efforts felt that the state-convened advisory group gave ADUs an added layer of legitimacy and, coupled with the newly available data from the DEQ survey, helped Portland proactively plan responses to resident concerns as ADU development increased.

By 2016, ADU development had increased, and more than 50 permits were being issued a month. This increased production put ADUs in the spotlight at the city council in 2016 when the waiver came up for renewal again.²⁹ The city had just declared an affordable housing emergency, and politicians and planners were under pressure to ensure that housing subsidies (which technically included the SDC waiver) increased the supply of housing in general and of affordable housing in particular. Commissioners asked whether affordability levels could be mandated with the ADU SDC waiver; why other forms of urban infill, such as fourplexes, did not receive an SDC waiver; and whether waivers should be allowed for short-term rentals. The 2013 DEQ-funded survey helped quell concerns that the units were being used for short-term rentals, with the data demonstrating that most ADUs were long-term rentals. The survey found that 77.7 percent of Portland ADUs were occupied primary residences and that 4.5 percent were being used as short-term rentals (Portland State University Survey Research Lab 2013).

The 2016 SDC waiver resolution passed with few public comments and little opposition, but the increasing prominence of ADUs forced commissioners and advocates to ask who was benefiting from the SDC waiver and whether it was truly meeting citywide goals. ADU advocates expected more community pushback but realized that many people who normally opposed the resolution were occupied with the Residential Infill Project, a zoning reform proposal to allow duplexes, triplexes, fourplexes, and as many as two ADUs in all single-family areas. The lack of vocal and organized opposition to the SDC waiver renewal made extending the pilot a comparatively safe political move. The extension gave planners and the city three more years to develop regulations to address growing concerns about the impact of short-term rentals on ADU affordability and availability.

When the waiver came before the city council for a final time in 2018, a commissioner brought the resolution forward with four policy changes to address city goals for affordable rental housing:³⁰

- The ADU property owner must sign a covenant stating that neither the ADU nor the main house will be listed as a short-term rental.
- The housing bureau will collect data on the rent for each ADU that receives an SDC waiver.
- A biennial report that uses the collected rent data will evaluate the efficacy of using a waiver to support expanding the supply of affordable housing.
- BDS will explore a partnership with the county to implement a property tax abatement for ADUs that are affordable to people who earn 60 to 80 percent of the area's median income.

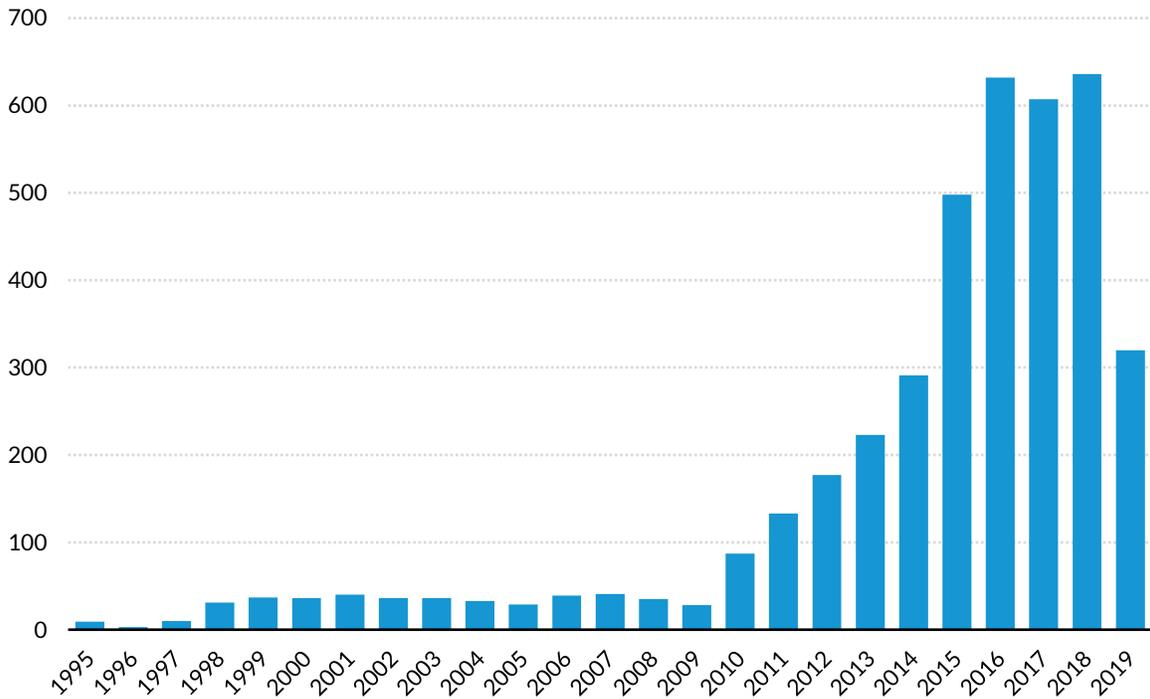
During the council's debate, ADUs were framed as a way not only to increase the number of affordable long-term rental units in neighborhoods with high-quality amenities, but also to supplement

the incomes of homeowners paying more than 30 percent of their income on a mortgage. Commissioners who had readily voted for the waiver in 2010 were more skeptical, but in the end, they all backed the resolution.

Reform Implementation and Outcomes

Advocates, politicians, and developers we interviewed widely credited the 2010 SDC waiver pilot and its subsequent extensions as the key to Portland’s ADU development success (Chapple et al. 2018). From 2010 to the development peak in 2018, the number of ADU units added annually increased more than 600 percent, from 87 to 636 (figure 3). The rate of ADU production in Portland dropped in 2019; in interviews, many pro-ADU advocates attributed the decrease to the SDC covenant that restricts fee waivers for short-term rental owners.³¹ Yet that year, ADUs were still almost 10 percent of the city’s total new housing production.³²

FIGURE 3
Accessory Dwelling Unit Permits Issued in Portland, Oregon, 1995–2019



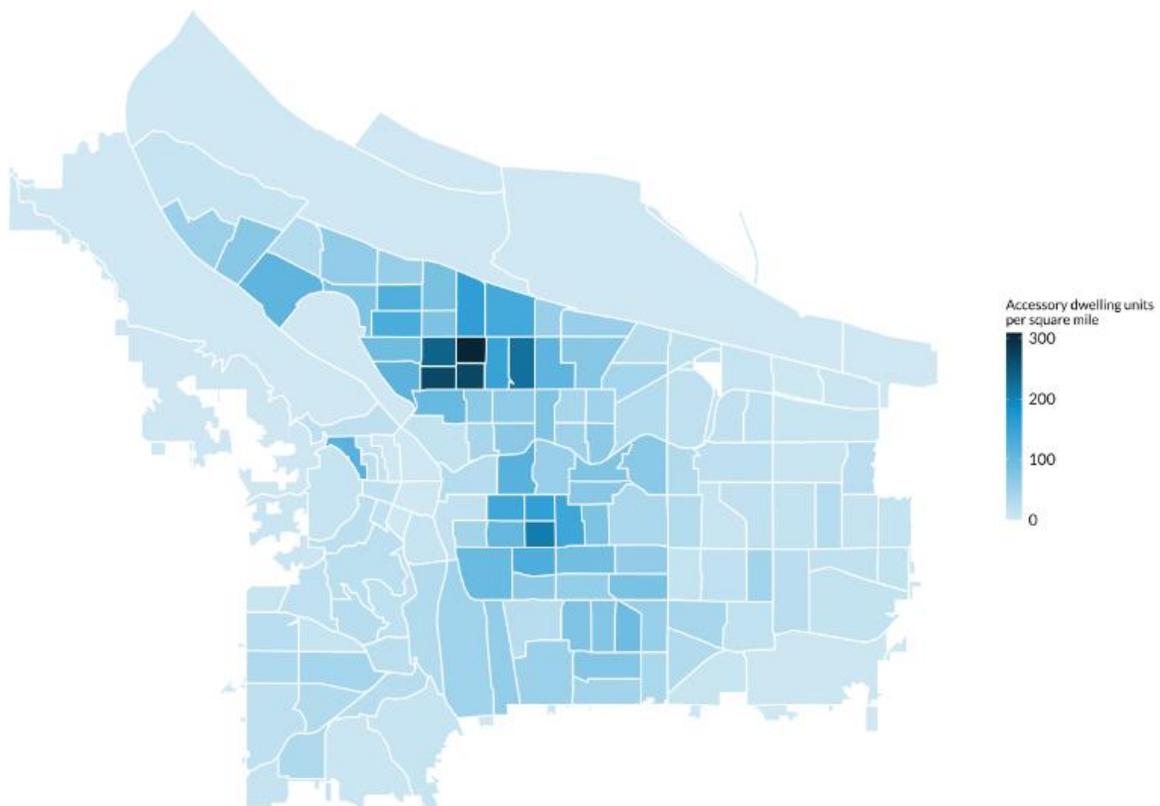
URBAN INSTITUTE

Source: Portland Bureau of Development Services.

Note: Data are permits that were final or issued.

ADUs are located throughout the city but are more concentrated in three neighborhoods (figure 4). However, our analysis of US Census Bureau data showed that ADU siting throughout the city had no strong correlation with income, race, population density, or housing tenure characteristics. ADUs continue to be relatively affordable rental properties; a 2018 survey found that about 44 percent of ADU owners leased their properties at below-market values (Gebhardt, Gildea, and Kidron 2018). Although ADUs can be found in most Portland neighborhoods (84 percent of census tracts) and are inexpensive for renters, the survey found that the vast majority of ADU owners were white (80 percent), and nearly half reported a household income of \$100,000 or more (Gebhardt, Gildea, and Kidron 2018). These data suggest that the potential financial benefits of ADU development are not accessible to low-income homeowners and people of color, both of whom are more likely than white or high-income residents to have difficulty paying their mortgages (Choi et al. 2019).

FIGURE 4
Accessory Dwelling Units per Square Mile in Portland, Oregon
Cumulative ADU units permitted between 1995 and 2019, by census tract



URBAN INSTITUTE

Source: Portland Bureau of Development Services.

Note: Data are permits that were final or issued.

Interviewees felt that beyond their effect on ADU production, ADU reforms and incentives were a first step toward policies that challenged traditional single-family zoning and opened the door for larger state zoning preemption policies. At the state level, landmark legislation (House Bill 2007)³³ was introduced in 2017 to prevent cities from banning ADUs or duplexes in single-family neighborhoods and to require a complete review of affordable housing development proposals within 100 days. The legislation ultimately failed; historical preservation advocates successfully campaigned against parts that made designating historical districts more difficult for local governments and prevented cities from requiring a lower density than the maximum allowable zoning. Shortly afterward, state Representative Tina Kotek introduced and the legislature passed Senate Bill 1051, which requires cities with populations of 2,500 or more to allow ADU construction in single-family neighborhoods and eliminated historical preservation requirements.³⁴ Many advocates who had organized in support of Portland's SDC waiver testified about the success of the city's ADU program and the necessity of removing these regulatory barriers.

Case Comparisons

Before drawing lessons about the reform process and outcomes from these two cases, we must consider how they compare and where the reforms and cities are situated in the national land-use landscape. Washington, DC, and Portland, Oregon, share several characteristics, including similar rates of population growth in recent years and constrained borders. But their planning contexts and zoning reforms differ dramatically. Therefore, these cases are most instructive in contrast to each other, with each case providing insight into different factors in the process of passing and implementing a land use reform. When considering how the reforms employed in the cases compare with other land use reforms that add density to neighborhoods, ADU reforms bring less noticeable development and are built by homeowners, rather than corporate developers. Finally, the lessons from these case studies apply most readily to other cities in the US with high housing costs and widespread single-family zoning.

Comparing Washington, DC, and Portland, Oregon

Washington, DC, and Portland each passed a reform that encouraged ADU development, although the specific reform and the subsequent outcomes differed. Portland has been consolidating and incrementally reforming its ADU regulations for nearly 30 years (and thus had a very different starting point), while Washington, DC, passed ADU reform in 2016. This variation in timing is just one of many factors behind the differences in the cities' ADU zoning codes, as table 3 shows.

TABLE 3

Key Accessory Dwelling Unit Zoning Code Requirements in Portland, Oregon, and Washington, DC

	Portland	Washington, DC
Owner-occupancy requirements	No	Yes
By-right development	Yes	Yes, for attached ADUs in all but two small zones. External ADUs require special exception review.
Minimum lot size	None	Either 1,200 or 2,000 square feet gross minimum depending on residential zone
Square footage limits	May not occupy more than 75 percent of gross floor area of the house or 800 square feet, whichever is less	May not occupy more than 35 percent of gross floor area of house
Allowed to share sewer and water lines with the existing house	Yes	No
Financing incentives	Yes	No
Zoning board review required	No	For external ADUs and all ADUs in two small zones

Source: Authors' analyses of Portland and Washington, DC, public zoning ordinances.

Note: By-right developments are automatically permitted if they are compliant with zoning criteria.

Portland and Washington, DC, have several similarities that factored into their drive for housing-related zoning reforms.

- **Rapidly growing populations and growth-oriented leadership:** According to US Census Bureau data, between 2000 and 2019, both Portland and Washington, DC, grew at an average of about 1.5 percent a year, while the average for the US overall was just 1.1 percent a year. Although they were not the fastest-growing cities in the country, Portland and Washington, DC, still had to accommodate 127,000 and 139,500 new residents, respectively—a 24 percent increase for both cities. Both city governments encouraged and facilitated population growth, and the pressure to accommodate a large number of new residents required planners to look for ways to facilitate housing production.
- **Constrained borders:** While some municipalities can annex land, both Portland and Washington, DC, have rigid boundaries that force their planning departments to look first for ways to maximize the efficient use of their existing land through density. Since the 1970s, Oregon has required the Portland metropolitan region to draw a UGB to constrain sprawl. The region can expand the UGB, but the general development culture has shifted to seek ways to increase density rather than expand. One interviewee recounted: “The [Portland] citizenry is more in support of smart-growth concepts than other places I’ve lived. I think that’s directly attributable to the urban growth boundary.” Washington, DC, has no official UGB, but its origins as a federal concession from Maryland and Virginia mean that any expansion would require an unlikely act of Congress and agreement from another state. Consequently, planners must accommodate growth with greater density. Planners in Washington, DC, also face higher stakes because the city’s already dense conditions mean zoning changes are more likely to affect residents’ daily experiences.

Here it’s more confined, so you have to do more give and take, negotiate, try to make it work because we’re so close together...That’s our uniqueness. We have to make it work, where other [cities] don’t have to worry about it.

—Washington, DC, interviewee

However, key differences in the two cases highlight factors that led to the varied outcomes from their reforms.

- **Different planning and zoning contexts:** Portland has just one voting body that approves both comprehensive plans and zoning reforms, potentially enabling continuity between the two. Meanwhile, Washington, DC, has two relevant voting bodies, one an elected city council that votes on the comprehensive plan and the other an appointed zoning commission that moderates changes to the enforceable zoning code. Appointments to the ZC in Washington, DC, are made by both the mayor and federal government.³⁵ Also, Portland is subject to oversight under the state's 1973 growth management program (Senate Bill 100), which mandates that the city accommodate growth with compact development. In contrast, Washington, DC, has no such oversight body, which means housing policy decisionmaking is based almost entirely on local resident, policy, and/or political guidance. However, it also leaves negotiation over who will expand housing production, increase density, and provide more services for expanding populations in the metropolitan Washington region up to the individual jurisdictions. The lack of oversight inclines each jurisdiction to preserve the status quo rather than increase density (Freemark, Steil, and Thelen 2020), so substantial portions of the region's housing demand are met via the expanding suburban fringe (Taylor 2018).
- **Allowing ADUs versus waiving impact fees:** Although reforms in both Washington, DC, and Portland aimed to increase ADU production, the two cities focused on different components of land use law. Namely, Portland focused on impact fees, while the District focused on the zoning code. Impact fee reform requires negotiations with the agencies that depend on the revenue from the fee to finance infrastructure (e.g., roads, sewer lines, public parks, libraries) necessitated by new development. In contrast, zoning reform requires negotiation with residents. Portland negotiated its zoning reform to allow attached and external ADUs more widely in 1998, many years before Washington, DC, did.
- **Density and lot sizes:** Washington, DC, is significantly denser than Portland (11,200 people per square mile versus 4,720), and the difference in the amount of space between homes may be a loose indicator of the difference in the amount of opposition each reform faced. More than 80 percent of Portland's single-family homes are on lots whose square footage is above 3,000 (Heuer 2016). In contrast, 59 percent of single-family homes in Washington, DC, are on lots that are less than 2,500 square feet, and only 41 percent are on lots between 3,000 and 9,000 square feet (Taylor 2019). The historically smaller lot sizes in Washington, DC, also mean that a

higher share of its residential areas have reached their maximum built capacity. Consequently, Portland can increase density more easily than Washington, DC, can.

Because of these differences, the cases do not offer insights through direct comparison but rather stand in contrast to each other; each case illustrates a different point along the causal chain of reforming regulations to allow for more housing production and greater affordability.

Comparing ADUs with Other Housing Land-Use Reforms

The degree to which these cases shed light on how zoning can help fill the growing gap between housing need and supply depends on how well easing restrictions on ADUs boosts housing production relative to other housing reforms.

From a technical perspective, ADU reforms differ critically from reforms to allow duplexes, triplexes, or larger multifamily housing. ADUs augment the use of an existing, primary home. In many cases (e.g., with basement, attic, or above-garage units), ADUs do not require changes to a building's footprint. Planners we interviewed noted that in contrast, reforms that would allow larger developments require more intense study to assess how altered building footprints or a large population increase would affect the environment, services, and congestion. Because of their lower impact on both neighborhood character and infrastructure (Palmeri 2014), ADUs often provoke less strident opposition than duplexes or other multifamily developments do.

However, ADUs still increase the number of households that share a lot, and thus the difference between a reform that allows ADUs and a reform that allows duplexes is minimal. One advocate noted: "I describe [ADUs] as a gentle gateway drug to missing middle housing. Getting there, it will require being respectful of single-family housing only. We won't allow multifamily housing, but we will allow what was allowed until the 1920s: duplexes, triplexes, quadplexes." Because they provoke less strident opposition, require less new infrastructure, and yet modify the most widespread zoning type (single-family), ADUs have significant potential to deliver as much additional housing as multifamily infill development (Wegmann and Chapple 2014).

On the other hand, ADUs also differ from other housing supply-related reforms in that homeowners, not developers, are the primary beneficiaries. And support for ADU reforms is much less concentrated or consolidated than support for other multifamily housing-related reforms because unlike developers, homeowners have no reason to join professional networks and navigate the permitting process only once. Relatedly, homeowners require stronger incentives and much more

streamlined processes to entice them to develop the units, meaning that city governments likely need a suite of reforms and measures to increase ADU production. Chief among these are capital financing programs through banks or private enterprises and subsidies like the SDC waiver to enable relatively capital-poor homeowners to make such large investments. The public also may be more likely to support homeowners' ability to earn more from their homes than to support reforms that benefit corporate developers.

Comparing Case Study Cities with Other Cities

As our two cases highlight, local political structures (e.g., the decisionmaking bodies involved and their power, accountability, and roles), macro events (e.g., the recession of the late 2000s), and local market characteristics (e.g., density or population growth trends) heavily affect the need for and the most strategic steps to take to pass a zoning reform. Despite the unique characteristics at play in the ADU reforms of Washington, DC, and Portland, a couple of common factors may determine how well their cases apply to other cities.

- **Need for affordability:** Building an ADU is expensive for homeowners without large capital investment funds. Consequently, ADU reforms are more likely to receive homeowner support in places where housing costs are high and owners can expect to recoup their expenses in future rent. As one ADU consultant recounted, “The economic drive to create these units is much stronger in places where land values are high.”
- **Widespread low-density, single-family homes:** Incremental increases in density are easier to accommodate where the landscape is less developed, such as areas dominated by low-density, single-family homes. Planners in both Washington, DC, and Portland highlighted that greater distances between residences reduce perceptions among owners that a zoning reform will affect their properties and thus the level of backlash that a planned ADU might receive. Putting these elements together, a Portland planner said: “Low-density development and high land values...that’s the ideal petri dish for ADU development.”

These factors provide insight into which cities might consider using ADU reforms to encourage housing production, as well as which barriers to passage they will need to strategically navigate.

Lessons on Process

Both case studies offer insights into the factors that shape the technical process a reform follows and the moves required—once that process has been set—to negotiate, advocate for, and pass a reform that reduces barriers to housing production.

Establishing a Favorable Planning Context

A reform's context determines a lot about the process it must go through to become law, and planners can create a favorable context for zoning reforms by creating a coherent, widely shared vision for the city's development through the comprehensive planning process. While a city's built environment reflects its *current* character, comprehensive planning creates and reflects a shared narrative among residents about the city's *future* character. These narratives underlie arguments about whether a change to the zoning code will support or hinder the city's development into that future form, and the degree of agreement around that desired future form will influence a reform's content and ease of passage. Portland and Washington, DC, had very different degrees of consensus around expected future forms.

The housing element of Portland's comprehensive plan—which was in force during the SDC waiver discussions—had an objective of enhancing “Portland's vitality as a community at the center of the region's housing market by providing housing of different types, tenures, density, sizes, costs, and locations that accommodate the needs, preferences, and financial capabilities of current and future households” (Portland Bureau of Planning 1999, 9). In its attempt to accomplish this objective, the city created housing goals that reveal a shared value for dense development that preserves the nature surrounding the city. The city's first goal was to “designate sufficient buildable land for residential development to accommodate Portland's share of regional household growth to reduce the need for urban growth boundary expansions,” and its fourth was to “encourage the efficient use of existing housing” (Portland Bureau of Planning 1999, 9). Among other goals, the city aimed to “encourage housing that supports sustainable development patterns by promoting the efficient use of land, conservation of natural resources, easy access to public transit” (Portland Bureau of Planning 1999, 11). These goals stemmed from the 1973 state growth management program and fed into a narrative that the city's housing should become denser as the population grew, building on existing structures and lots (DeGrove 2005). Within the broader context of growth management in metropolitan Portland, these goals clarify that ADU-enabling reforms—which the city council passed roughly every three years, continually modifying the code to deliver the desired result—contributed directly to the city's desired future form.

I don't have empirical data for this, having been a resident of Boston and DC as well as Portland, but there seems to be more of a cultural acceptance of urban infill development than other jurisdictions I've lived in. The citizenry is more in support of smart-growth concepts than other places I've lived. I think that's directly attributable to the urban growth boundary policy established in 1973 by the governor.

—Portland interviewee

In contrast, the Washington, DC, housing plan, which was adopted in 2006, emerged from a backdrop of a decade of high crime rates and fiscal distress (Jaffe and Sherwood 2014). Housing demand had only recently begun increasing as the government worked to attract businesses and new residents in a context of low interest rates, regional economic growth, falling crime rates, and public service improvements. Even as demand began creating steep increases in housing costs, prescriptions for resolving this issue were not universal. Wealthier residents, such as those involved with the Committee of 100 on the Federal City, sought to (as published on that group's website) "sustain and safeguard the fundamental values of the L'Enfant and McMillan plans," which gave greater weight to Burnham's City Beautiful principles than to housing affordability or supply (Gutheim and Lee 2006). Some residents within the then Black-majority population were deeply skeptical of any urban revitalization programs, which were seen as a "plan to take back" the city and replace Black residents with wealthier white people (Henig and Rich 2003).

The housing element of the 2006 comprehensive plan raised three key issues: the accommodation of new and different populations within the District, the rising racial homeownership gaps, and the inadequate and racially biased distribution of subsidized developments across the city. To address these challenges, the plan set a conservative objective of developing and maintaining "a safe, decent, and affordable supply of housing for all current and future residents of the District of Columbia" (District of Columbia 2007b, 5-7). Without offering a new vision to supplant the previous antigrowth narratives and without specifying the principles outside of "inclusivity" needed to govern development, the housing plan generically aimed to increase supply while protecting affordability (District of Columbia 2007b, 5-8). However, the rest of the plan did little to support those goals, instead aiming to protect the integrity of Washington's historic plans (District of Columbia 2007a). Other sections called for preserving the strict height limits, set in 1910, and preventing site consolidation, which would facilitate larger-scale multifamily development, in an effort to reinforce the L'Enfant and McMillan street plans. These contradictory goals within the District's plan foreshadowed the zoning reform process that

would allow ADUs to meet the District's goals. Even though the Board of Zoning Adjustment was already approving all variance applications for ADUs, formalizing that provision within the zoning code would require reentering the unresolved debate about what form the city should take in the future, with ADUs a new front on which community groups could wage the same debate.

Pushing for the Reform

Our document review and interviews indicated that if a city has established a planning narrative that supports increasing effective means of increasing housing supply, planners and city council members could have an easier time enacting zoning reforms to meet that goal. Without that support, though, they would likely need to rely more on political capital and engage in broader policy debates while passing the reform.

LEVERAGING POLITICAL CAPITAL

The cases of Portland and Washington, DC, demonstrated that (1) ambitious reforms grow out of political champions' initiatives and (2) a champion's willingness and ability to expend political capital affect the reform process and the level of exposure to public opposition that a reform receives. Competent planning staff can support a reform champion but are rarely drivers themselves. Planners in both Washington, DC, and Portland recounted taking a passive role in the design of the final reforms. Although they reported personally supporting and initially writing broad and unrestrictive ADU codes, they stressed that they were obliged to honor the requests of elected or appointed officials whose agendas were backed by voters. However, planners' assembly of information (e.g., studies, surveys) for reform champions or elected officials can help move the agenda in the direction the reformers seek. Portland's planners achieved this in their survey partnership with Portland State University, which enabled the collection of data that showed owner-occupancy requirements were ineffective.

In Portland, the 1998 ADU by-right zoning law passed after a passionate fire chief championed the reform to make building and owning a safe ADU easier. Later, the SDC waiver emerged from the recommendation of a passionate city council member who had lived in an ADU and wondered why the units had not spread throughout the city. His passion and hard work persuaded the four fee-levying bureaus to approve the proposal and ultimately convinced the city council to pass the waiver.

DC's story has some parallels to Portland's, although it demonstrates the impact of losing political backing for a reform. The comprehensive plan that sparked the ZRR emerged from Mayor Anthony Williams's desire to (in the words of one planner) "throw the kitchen sink" at increasing the city's

housing stock. The comprehensive plan's housing element triggered a zoning reform, but by the time the reform process began, the city had a new mayor, Adrian Fenty, who did not stand behind ambitious housing reforms. This lack of political support shifted the technical process, requiring planners to ensure the reform would not expose the mayor to political blowback and would receive public support. One interviewee said: "The mayor kept delaying it because it was so big...He asked at the end for a six-month delay and another round of comments and time in the [DC] Register, and that signaled he wasn't telling [the Office of Planning] he was standing behind them." In addition to the lack of mayoral support, the appointed ZC members did not need a platform that excited a base and consequently were (in the words of one interviewee) "never a spur to action" but were rather "largely an anchor" against any changes. These two factors left the OP exposed to and reliant on public approval, which meant the process needed extensive opportunities for community engagement and public education. This approach requires creative and coordinated efforts lest proceedings be dominated by special interests.

It would have made a big difference if the mayor had said he would back the Office of Planning up and stick to his guns to get this thing passed. They could have passed it closer to its original form if they'd had political cover.

—Washington, DC, interviewee

Taking lessons from these examples, the political capital required for a zoning reform appears related to the degree of community agreement around the comprehensive plan and the desired future shape of the city. If the zoning reform requires confronting disagreements and a champion is not willing to expend the political capital to pass a reform that favors one side over the other, the office of planning and voting body (city council or zoning commission) must spend time investigating and validating the reform to gain broad community support and counter opposition. According to interviewees, without the political capital to absorb voter displeasure, any appointed official responsible for an unpopular reform could be asked to step down.

BALANCING THE NEGOTIATIONS

These cases demonstrate different approaches to public engagement. Comparing the evidence from both cities indicates that simply engaging the public on a voluntary basis does not guarantee equitable or desired reform outcomes. Rather, planners and elected officials should analyze, recognize bias in, and try to balance the information that goes into decisionmaking—for example, by conducting studies or

targeted outreach, relying on political backing, and/or considering voluntary public input one of many factors informing a reform process. Such efforts to balance decisionmaking inputs are necessary because of predictably imbalanced trends in who participates and the differences in the strengths of the arguments for the status quo versus those for reform.

Anticipate who participates. Resident participation in land use decisions was intended to protect communities from top-down urban renewal practices that destroyed neighborhoods and city centers in the 1950s and 1960s. However, research shows that those who participate in zoning reform processes tend not to represent everyone who would be affected by the reform. Studies of local zoning meetings in Massachusetts, for example, found that those who turned out to oppose zoning reforms tended to be homeowners and more politically trusting or adept citizens (Einstein, Glick, and Palmer 2017).

Our research reaffirmed this finding. During Portland’s 1998 zoning reform process, one planner recounted from his department’s study of archived public documents that “the testimony was focused geographically within a few of our higher-income single-dwelling zones.” In Washington, DC, the ZRR process tried to increase participation and transparency during the reform’s early stages by creating a task force. However, as one task force member stated, “While politically it was the right thing to do, we ended up with a task force skewed towards opponents.” Opportunities for broader public participation were skewed as well. Our review of public documents from the ADU portion of the ZRR process found that even though the wards that are wealthier, have larger white populations, and are dominated by single-family housing (wards 1, 2, 3, and 4) held just 50 percent of the city’s population, 74 percent of the comments and testimony came from those areas. As one planner recounted, people from these neighborhoods ensured their viewpoints dominated the discussions by being “the last ones standing because they’re willing to show up one extra time.”

Beyond issues of representation at public forums, as a Washington, DC, interviewee noted, reform opponents “tend to be more knowledgeable about the development review process because they’re always turning out to oppose things.” Residents of wards with disproportionately lower incomes noted that a lack of exposure to “zoning jargon” or the failure of planners to translate the implications that the zoning changes had for each neighborhood meant “many communities have been left out of the ZRR process.”³⁶ Others from the city’s lower-income wards also highlighted that their communities lacked internet or computers to learn about the ZRR process and reforms.³⁷ Pointing to the lack of equitable policy translation and distribution of resources, the DC Zoning Changes Network wrote: “Discussing these important changes at ‘hearings’ and providing 5-minute testimonials from the community at the end of the process does not qualify as true public engagement. Only a few communities were afforded a

meaningful and thorough back-and-forth discussion with the Office of Planning—but we want all communities [across the city] to have that opportunity.”³⁸

The official processes in Washington, DC, and Portland did not achieve equal participation for low-income residents, who came into the public process later and often were unfamiliar with zoning terminology, lacked access to digital public materials, had little time to read about the process or attend the numerous meetings, and regarded the political process with suspicion. In both cases, this imbalance was addressed primarily by privately initiated community organizing to build people’s capacity to testify or submit comments that represented the viewpoints of renters and middle- or lower-income residents. In Washington, DC, the ZC tried to counteract the trend of imbalanced participation by holding public hearings in each ward, but they were poorly attended. The hearings in Wards 1 and 2 and then later in Wards 3 and 4 (the city’s wealthier wards) attracted 20 and 36 attendee testimonies, respectively, while the hearing in Wards 7 and 8 (the city’s lower-income wards) attracted testimony from just 9 attendees. And while most testimony in Wards 1 through 4 came from informed residents expressing support or opposition for detailed text within the reform, the majority of testimonies in Wards 7 and 8 came from ANC commissioners who were already involved in the process because of their positions and consistently asked for more education and explanation of the reform’s implications for their constituents.

Even though the voluntary testimonies in Portland and Washington, DC, were not representative of the sociodemographic characteristics of the cities’ overall populations, the balance that occurred was better than it would have been if left to purely voluntary participation. Instead, organizers like Greater Greater Washington and the Coalition for Smarter Growth in Washington, DC, and Kol Peterson’s ADU coalition in Portland spurred residents who were otherwise only moderately interested in the reform to submit testimony and comments in support of the zoning reforms. When asked about the most important factor for achieving success in the reform process, one planner in the District said: “We really couldn’t have overestimated the impact of [one activist and community organizer] individually and their organization in getting people to testify. That advocacy was really important.” The need for these advocates arises because the incentive and capacity to participate are not evenly distributed across residents, but the (im)balance of incentive and capacity does not necessarily reflect the actual merit of a reform. Consequently, decisionmakers should not depend on the balance of support or opposition among public testimony and comments to decide how to design or whether to pass a reform. In land use decisionmaking, policymakers instead have a special responsibility to independently offer “special concern for the long-range consequences” of decisions and recognize their “special responsibility to

plan for the needs of the disadvantaged” or those who lack formal organization, influence, or representation.³⁹

Assess and weight varying arguments. Decisionmakers take in information during the reform process (from public engagement and studies) to understand the risks and benefits the proposed reform would have and for whom. However, planners and elected officials must decide how to weight the different arguments and presenters, a decision that can determine whether a land use reform achieves planning goals or not.

In both cases, the arguments from the various stakeholders were strikingly similar.

In Portland and Washington, DC, planning office representatives said they began their processes in support of ADU development. “We wanted to expand the availability of housing,” said a planner from Washington, DC. The District’s planners made the case that ADUs “would facilitate aging in place and income diversity in neighborhoods” and hoped for by-right development for ADUs throughout the city. Planners in Portland also emphasized the need to create zoning codes that would allow for increased housing production to accommodate population growth.

I always go back to this argument: the Fonz lived in an ADU; Thomas Jefferson lived in an ADU. This is a housing type that goes back hundreds of years. 123 Sesame Street—Bert and Ernie lived in an ADU. But somehow we’ve made these kinds of housing illegal.
—Portland planner

Likewise, the arguments for and against ADU production from residents in both cities were similar.

- **Opposition:** In early ADU negotiations in Portland and the ZRR process in Washington, DC, opponents from wealthier areas tended to focus on risks to their neighborhoods’ character and their lack of control over changes. People worried the zoning reform would “change the character of our single-family home neighborhoods” with “20-foot-tall” ADUs that would ruin their “backyard sanctuary” or lead to their neighborhoods’ “commercialization by injecting potential rental units.”⁴⁰ Opponents predicted ADUs would cause an “increase in noise” or lead to “more trash-strewn neighborhoods and even more crime.” Some were concerned about a loss of control over their neighborhoods with the removal of laws that prevented “external uses that could negatively affect neighbors’ quality of life.” A participant in a Washington, DC,

hearing testified: “I want someone to come talk to me. I just want to have a say in what’s going on. With matter of right development, they don’t have to ask me first.”⁴¹

- **Support:** Advocates and residents who supported reforms emphasized the social, economic, and community benefits ADUs would provide. Some cast an optimistic vision that ADUs would “contribute to more vibrant, safe and livable neighborhoods with a diverse mix of ages, incomes, schedules, and life experience.” Portland supporters referenced the safety improvements that easy ADU permitting would bring, given that people had died from fires in unlawful basement apartments. A few supporters referenced the benefit of “providing affordable housing in existing neighborhoods without the need for additional infrastructure.” Supporters of Portland’s SDC waiver and the District’s ZRR ADU ordinance also highlighted that reducing barriers to ADU development could provide additional wealth building opportunities for cost-burdened Black homeowners and could slow gentrification in historically Black neighborhoods. Many people in Washington, DC, and Portland highlighted personal benefits from the reform. One family wanted to convert a garage so a mother-in-law could live there, a teacher recounted that an ADU would help support his income during the summer, and a family struggling with rising property taxes expressed interest in the income an ADU might provide. One Washington, DC, resident supported by-right development of external ADUs based on historical precedent, saying that “the District still has many charming alley dwellings that attest to a time when housing was more affordable and government was not so intrusive.”

The two cities took different approaches to weighting individual feedback and arguments: Portland decisionmakers chose to recognize the comments they received as one input among many others in the reform process, while Washington, DC, decisionmakers prioritized public input and weighted opponents and proponents equally regardless of the balance or the effect on achieving planning goals. In Portland’s 1998 debate around permitting ADUs, one planner wrote: “The City Council supported the staff and Planning Commission’s direction on [ADUs] despite receiving the neighborhood opposition” because they had confirmation the zoning reform supported comprehensive plan goals and saw that the opposition was not representative of the broader city. Instead, city commissioners weighted existing ADU production patterns, overall housing needs, and the city’s long-term planning goals more heavily. In Washington, DC, ZC members noted that the public engagement process was not a “numbers game” but that their ultimate goal was to “balance all the information” and ensure the new laws satisfied the demands of both opponents and proponents to feel “win-win.” This meant that even though 73 percent of testimony and comments supported by-right external ADUs, the ZC treated the arguments of opponents and proponents as equal, adding weight to arguments for the special exception

requirement on external ADUs. This is not an uncommon practice, given people’s cognitive bias toward the status quo and against risk (Einstein, Glick, and Palmer 2020; Kahneman 2011). But in this case, it meant the ZC passed a reform without significant consideration of studies on existing ADUs in Washington, DC; barriers to development; or the impact they would have on neighborhoods and the city’s housing needs. Ultimately, the reform had limited potential for achieving the city’s comprehensive planning goal to “facilitate development of accessory apartments.”

PRIORITIZING PUBLIC EDUCATION, FRAMING, AND ITERATIVE IMPROVEMENTS

Outside the planning process and public hearings, our interviews indicated that a reform’s success depends in part on how much the public understands a reform, how large or risky it appears to be, and how it compares to other concurrent reforms. Interviewees emphasized that educating the public is important in building support for a reform. To increase the public’s familiarity with the possible impacts of ADU reforms, proponents in Portland organized tours of ADUs and published numerous stories about the people who lived in them. These efforts helped normalize ADU inhabitants and broadcast the benefits to property owners. One advocate recounted: “Part of it’s a regulatory change, but there’s a soft side of things: education, tours, conversations around the water coolers...ADUs become cool, hip, and widespread.” This education becomes easier if a city already has historical ADUs and has created (or has neighboring jurisdictions with) a minimal zoning allowance for any kind of ADU so that owners, residents, and neighbors of ADUs can testify to their impact and recommend policy improvements.

Timing and packaging a reform require strategic considerations. On the one hand, planners can time or package multiple reforms together such that the reform at hand appears less controversial than other proposals. In Washington, DC, bundling the ADU reform in the larger ZRR package with reduced parking minimums—which, in the words of one advocate, was a much more “sacred” issue—meant the ADU proposal drew less negative attention than it might have had it been a stand-alone proposal. Similarly, Portland’s SDC waiver reportedly faced limited opposition because of the Residential Infill Project’s prominence. Where local governments are under pressure to change the types of housing allowed to accommodate growing populations, contrasting ADUs with apartments or more controversial rezoning options like parking minimums can help put the proposed changes in perspective.

On the other hand, planners reported that bundling reforms can make the proposed changes appear monumental, rather than incremental. Planners and officials in Washington, DC, said grouping their overlay rationalization with the ADU, parking, and corner-store reforms made the ZRR seem like a much larger and riskier project. As one interviewee recounted, “The OP packaged them together into

one gigantic reform, so there were a *lot* of people affected and they had the sense: ‘There’s so much change!’” This aversion to monumental change likely stems from most Americans’ high levels of satisfaction with their neighborhoods: more than 70 percent of respondents to the 2013 American Housing Survey rated their neighborhoods 8 or higher on a scale from 1 (worst) to 10 (best).⁴² Even though packaging the reforms together might have drawn public ire away from ADUs in Washington, DC, planners agreed that the package’s size delayed its implementation and thus how well the reform could respond to immediate housing needs. As one planner recounted, “We got it through, but [it] would’ve been more effective to break it up—it could’ve been in effect while subsequent issues were worked on.”

In contrast, Portland’s iterative reforms to the ADU section of its code were narrower and provoked less pushback. By passing a basic reform in 1998, Portland’s planners enabled a few homeowners or developers to create examples of the new housing type, the evidence from which provided guidance and backing for future reforms. As one Portland planner summarized: “The first thing is getting the rules written well. Then get early adopters who built their own ADUs to go train other people.” Iterative reforms also give planners the opportunity to partner with local universities—as Portland did with Portland State University—or to conduct studies of their own on who lives in ADUs, where units are built, how much they cost, how many units they yield, who builds them, and what neighbors think of them. This evidence can be used to inform debates and broaden support. While this incremental or iterative process takes much longer, it also gives residents time to adjust to the changes and develop an accurate sense of the type of development the reform entails.

There was a lot of neighborhood opposition where the sense was, you’re going to turn our neighborhood into an apartment complex. The thing that was interesting...and perhaps beneficial was that people would say the sky would fall and the sky didn’t fall. Most people’s neighborhoods didn’t change.

—Portland interviewee

Adopting an iterative or incremental process does not mean giving up on bold proposals (e.g., by-right development of the desired housing form in wide areas). Rather, this approach simply means planners design their concessions as temporary or cast the reform as a pilot meant to test whether the mix of constraints and allowances yields the desired production, with a promise to revisit and refine it in the future.

Lessons on Implementation

These two cases indicate that once a zoning reform is passed, the political capital, time, and energy spent on the reform must transition to a critical examination of the reform's implementation. Although we heard that a strong base zoning code is key to laying the groundwork for development, ADU supply increased when housing advocates and policymakers addressed the barriers to production that stem from a larger network of laws, practices, and regulations. Zoning reforms alone may not result in significant supply increases. If a city tries to address a housing shortage with only this approach, it may overlook the complex and interconnected factors that created the shortage in the first place. To set up a reform for successful implementation that produces the newly legalized units, people involved in the initial passage should consider the various factors that affect a city's housing supply.⁴³

The number of housing units produced after a zoning reform is determined by a combination of market conditions and the policy networks and landscapes that enable builders to produce housing in response to demand. Interviewees said that even though passing the ADU reform in Washington, DC, took nine years, many homeowners remained unaware of the option to build ADUs. And some homeowners who were aware of the option and interested in construction had trouble navigating the development process. From 2016, the year the reform passed, through 2019, a total of 75 permits were issued. Portland had similarly low rates of development when its ADU code was consolidated in 1981, but decades of incremental reform resulted in a baseline zoning code that paved the way for easier and abundant ADU development. Shifting the focus of land use reforms to address barriers faced by first-time developers was key for Portland's ADU policy to deliver an increase in housing supply. After a decade of loosening the zoning regulations on ADUs, the city determined that zoning was no longer the greatest barrier to ADU production and focused its attention on the permitting and impact fees that had become the limiting factor.

Successful implementation of a land use policy to increase housing supply requires housing leaders, advocates, and policymakers to take a systems approach to implementing zoning reforms. Our case studies indicate they should consider (1) how the larger network of laws, policies, and regulations interacts with their zoning reform to (2) address the barriers and risks that developers face at each step of the development process. In the case of ADUs, these were barriers that a specific subset of developers—homeowner-developers—faced, including production financing, other parts of the zoning code, codes and laws outside the zoning code, awareness and development capacity, and other psychological or bureaucratic barriers.

There is so much reform that needs to happen—awareness, campaigning, marketing. Years of work that needs to happen to enable this housing supply to occur.

—Portland interviewee

Addressing Financial Risks and Barriers

Basic zoning allowances go only so far toward creating housing units. Homeowner-developers need credit or capital for investment, and a housing project should appropriately balance costs against returns and other benefits. Planners and politicians in Washington, DC, and Portland noted that the largest barrier that potential ADU developers faced was financing. ADU construction costs typically range from \$20,000 to \$400,000. Such sums are difficult for many homeowners to raise, and a lack of tailored and adequate financing for first-time and low- and moderate-income developers was by far the most frequently mentioned barrier to development (Peterson 2018). With such high costs, ADU developers need guarantees they can recoup their investments.

Zoning codes' requirements for permitting can increase both risks and costs for homeowner-developers. The zoning code may require that owners undergo a special review or gather specific evidence as a part of the permitting approval process. For example, creating and revising draft plans and hiring a land use attorney to go through a special exemption process place an additional financial burden on homeowner-developers. During a public hearing in Washington, DC, a homeowner testified: "My experience with the special exemption process was that it was very costly and time-consuming. In my case, my architect urged me to hire a land use attorney. I spent \$50,000 to get to the point where I had to spend \$3,600 on a permit for plans that were too costly for me to build." This homeowner's experience shows how zoning codes can increase the financial risk associated with development by forcing developers to pay for expertise and application fees without a guarantee that they will receive approval to build the unit needed to recover those costs. Paying to develop a unit that is clearly allowed and will be profitable and paying significant fees without knowing whether approval will be given are two different risk calculations, and one seems more likely to yield more and lower-cost units.

Impact fees also add to up-front costs. Although the SDC for ADU developers in Portland was not a significant portion of the cost of development (interviewees estimated it was 10 to 15 percent at most), the marked increase in production after the fees were removed suggests that cost was a primary barrier

to production. Additionally, housing advocates and interviewees indicated that a sense of urgency to take advantage of what could be a temporary subsidy helped spark production.⁴⁴

Even when the zoning code minimizes financial burdens and risks that developers face—for example, by waiving impact fees or allowing by-right development—obtaining financing for ADUs remains a challenge. For homeowners, covering construction costs often requires access to a line of credit or other financing. The most frequently used tools available to homeowners for ADU construction are home equity lines of credit, which leverage homeowners' equity, and cash-out refinancing, which allows borrowers to tap into the equity of their homes but requires them to have at least 15 percent equity in the property (Peterson 2018). For duplex or multifamily developments, the Federal Housing Administration makes available loan products that take into consideration expected rental income. However, in mortgage refinancing calculations for ADUs, supplemental rental income is typically excluded. This exclusion has led many homeowners to rely on personal savings, loans from their 401(k) accounts, loans or gifts from relatives and friends, credit card debt, or other nonsecured sources (Peterson 2018).

Without targeted financial products for developers, ADU reforms will not maximize their housing production potential and could lead to inequitable outcomes. Homeowners without sufficient savings or high-value primary homes will not have the equity to qualify for debt-based financing. Multiple interviewees stated that higher-income homeowners are more likely to build ADUs than lower-income homeowners who need the rental income more. To ensure zoning reforms deliver greater production *and* enhance equity, ADU proponents in Portland and Washington, DC, have created programs for low-income homeowners to finance ADU development (box 7).

BOX 7

ADU Financing Programs and Approaches

Since 2016, private, public, and nonprofit entities in Portland and Washington, DC, have expanded financing options available to homeowner-developers seeking to build ADUs.

- **Local grant and loan programs:** In Oregon, Multnomah County (where Portland is) partnered with the social impact nonprofit organization Enhabit to create A Place for You, a program that provided homeowners with a 384-square-foot, one-bedroom external ADU at no cost in exchange for providing rent-free housing for five years to individuals or families experiencing homelessness. In Washington, DC, the Coalition for Smarter Growth has partnered with the United Planning Organization to pilot a program that provides small grants for two low-income homeowners to develop an ADU in exchange for a guarantee to set rents that are affordable to

renters who earn at or below 50 percent of the area’s median family income for a minimum of three years.

- **For-profit models:** In cities where ADUs are allowed, several companies have sprung up to finance, site, acquire permits for, build, and manage ADUs for homeowners, to whom the company pays a small amount to rent the land. In Portland, the company Dweller offers homeowners the option to host the ADU on their land and take a share of the profits or to buy out the lease from Dweller for the fully installed ADU for \$130,000.
- **Financial institution products:** A few Portland community development financial institutions have created loan mechanisms that are suited for ADU development and offer home equity lines of credit and first mortgages based on post-completion assessed home value. Similarly, [Point bank](#) offers shared equity financing, in which the bank provides \$35,000 to \$250,000 for home improvements. At the end of the contract, the homeowner’s buyback cost to regain full ownership is the amount originally received plus a portion of the home’s appreciation since partnering.

Creating Coherent Codes

Our case studies also highlight the importance of identifying and removing restrictive regulations that impede ADU development. Restrictive bylaws are often put in place as compromises with those who oppose change or simply because they appear frequently in other zoning codes.

In Portland, many external accessory structures, such as garages and cottages, were ineligible for conversion into ADUs because of setback, floor area ratio, and height restrictions. By identifying the parts of the zoning code preventing the conversion of existing structures into ADUs, Portland streamlined the permit approval process and reduced the need for variance applications, which require lengthy, uncertain, and expensive approval processes from the board of zoning adjustments. One planner said: “With ADUs, [the planning department] updated some of our accessory structure code provisions and created a more uniform path for classifying accessory structures. This made ADU standards line up with other accessory structure standards.” Planners and commissioners also reviewed the most frequently approved zoning variances to help identify whether any specific zoning codes made development disproportionately difficult. By creating a coherent zoning code that took the conditions of the existing housing stock into consideration and updating its code to accommodate common variances, the city decreased the amount of time and money homeowner-developers spent creating an ADU and helped appease neighbor concerns about how well ADUs could blend into the neighborhood.

Planning departments can, after passing an initial reform, update older sections of the zoning code to align with new regulations, reducing the number of places in the code that need to be referenced and that might conflict or cause problems should property owners wish to convert structures for other uses (e.g., turn a carriage house or backyard shed into an ADU). Typically, only lawyers, architects, and larger developers are familiar with the zoning code, so updating and streamlining the code make ADU development more accessible, less risky, and less expensive for amateur developers.

Aligning with Other Codes and Laws

Zoning codes set restrictions on what kinds of buildings may be constructed where, and they interact with other regulations, including building codes, fire codes, and property tax laws. How well all these other regulations align can facilitate or hinder new housing production, especially for property owners unfamiliar with the development process. In the ADU development process, a review by city staff for zoning eligibility is usually the first step, followed by reviews for building codes, electrical and plumbing permits, special exceptions (if required) through zoning boards, and rental license approvals. Interviewees in both Washington, DC, and Portland emphasized that without alignment of other regulations, new zoning regulations can unintentionally create a prohibitively lengthy and costly development process that yields ADU plans that will never “pencil out”—that is, receive revenues that match or exceed project costs.

For homeowner-developers to acquire a permit to build an ADU, the planned structure must comply with a jurisdiction’s building code, regulations that specify the standards for construction. One interviewee in Washington, DC, stated: “ADUs haven’t been successful. The issue isn’t necessarily zoning; it’s also the building code.” For example, the zoning code in the District mandates that the floor area of an ADU cannot exceed 35 percent of the gross floor area of the primary house. However, this can make adhering to the hallway widths and room sizes that are required by the building code costly or impossible if the primary house is relatively small. Portland expanded its floor area ratio for ADUs to be up to 75 percent of the primary residence, which made alignment with the building code easier and expanded development opportunities to lower-income homeowners with smaller primary structures. The city ensured its zoning code complemented, rather than contradicted, the more widely recognized safety standards in building codes, reducing the level of experience and knowledge required to navigate the development process.

Providing Education and Targeting Support

A lack of widespread understanding of what ADUs were and their potential benefits was also a barrier to housing production. Both Portland and Washington, DC, worked to increase awareness of ADUs and to assist interested property owners.

After the SDC waiver passed in Portland, ADUs became a popular conversation topic. The local newspaper, the *Oregonian*, frequently profiled ADU tenants, which helped humanize the benefits of adding units with below-market rents in expensive neighborhoods of single-family homes. Meanwhile, private-sector and nonprofit volunteer advocates were leading local ADU tours and developing workshops for interested homeowners (Peterson 2018). Similarly, low-income housing advocates and activists in Washington, DC, created a program to boost ADU production after the ZRR passage. Program leaders hosted workshops to educate homeowners about ADU development and to spur interest.

This push to increase public awareness of ADUs helped increase production by targeting the knowledge and social acceptability barriers to development that first-time homeowner-developers faced. Before the initial SDC waiver passage in Portland, many homeowners did not know what ADUs were, let alone how they could develop one. Efforts to increase visibility (e.g., tours, newspaper columns, development and financing workshops, conferences, resource websites, and other public mentions), along with the pressure to take advantage of what was potentially a time-limited subsidy, worked together to increase supply. Interviewees in Washington, DC, reported that public awareness and targeted resources were essential to producing the relatively small number of units permitted since 2016 and that other barriers prevented greater production.⁴⁵

Having good base rules is an essential key ingredient to make rules easy to use. But that on its own is not enough. There are people all over who need to do trainings. That hand holding is a necessary service. It takes that level of support.

—Portland interviewee

Removing Bureaucratic and Psychological Barriers to Production

Interviewees reported that after homeowners became aware of the benefits of building an additional unit, the steps required to realize the project were at times too intimidating, time-consuming, or confusing for potential developers to move forward. For professional developers who are well-acquainted with the zoning codes, a zoning change often does not cost much time and effort to understand or use. However, for homeowner-developers, understanding the code can be expensive if it requires hiring a lawyer, which is still a common practice for homeowners looking to build ADUs in Washington, DC. Public education can help, but if zoning codes necessitate lengthy and expensive permitting processes—for example, special reviews in front of neighbors and heavy impact or professional legal fees—building an ADU may not be worth the time and effort for first-time homeowner-developers.

Portland's incremental adjustments to their ADU code slowly lowered the regulatory barriers to production and worked to reduce the psychological and time burden as well. Advocates' extensive education and community outreach paved the way for the city to create a user-friendly permitting process. The office of planning created a user guide for ADUs to help people navigate the requisite building codes. As one planner reasoned, "I know, as a professional, I can figure out utility connections, getting natural gas and the different wings of the city government you have to interact with, but it's much more difficult for a homeowner." This user-friendly approach reduced the burden of having to navigate multiple agencies, laws, and regulations.

The psychological and financial costs to developing an ADU remain high in Washington, DC. Many homeowners still have trouble navigating the development process and must hire architects or land use lawyers to determine whether their plot qualifies for an ADU. One interviewee stated that even construction companies and architects have trouble navigating the law. "Some of the problems are just about information," she said. "There's not an assemblage of information. It's hard to forage through the zoning regulations and building codes." Deciding to apply for a permit is one barrier, and if building an external ADU, a homeowner-developer must still negotiate with neighbors in special exemption hearings, a process with high social capital costs, in addition to the time and expense involved in attending meetings and hiring specialists. With so many costs in the ADU building process, it is unsurprising that production has remained low—fewer than 30 ADU units a year are built in Washington, DC.

Conclusions and Future Research

The mounting evidence about the direct impacts of restrictive zoning on housing supply has increased public interest in altering these land use regulations and thus the need to understand the process by which land use reforms pass and produce additional housing.

Through this report's examination of ADU SDC reform in Portland, Oregon, and ZRR ADU reform in Washington, DC, we have described some factors crucial for passing their land use or zoning reforms. Although the technical process that zoning or land use reforms must follow has some influence over how easily they pass (e.g., the impact fee reform process in Portland versus the zoning code reform process in Washington, DC), a city's master planning context, as well as the reform's political backing and framing, heavily influences what kinds of opposition emerge and the associated compromises that planners and the officials who vote on changes may face.

Setting up favorable planning contexts, gathering political capital and will, and framing a reform take careful preparation and hard work on the part of planners, city officials, and advocates. Planners must engage in intensive public negotiation and mediation between citizen groups to achieve inclusive planning processes and a public consensus about the form of the future city (and state policies can support those aims). Planners can cultivate political will through targeted education efforts (although their effects can depend on time and chance) and can time and present reforms with frames of reference that appropriately depict their relative impact and benefits. In the process of drafting and passing the reform, planners and elected officials must decide how to weight voluntary participation input (which skews toward the interests of wealthy homeowners) and how much to rely on evidence gathered about the reform's risks and benefits for the city's different population groups (e.g., present and future wealthy and low-income homeowners and renters).

Beyond the reform process, this report finds that a land use reform does not guarantee housing production. Other systemic factors that influence housing production—such as public awareness, financing, developer know-how or capacity, support from other city regulations, and coherence within the zoning code—can create additional costs and barriers to production if they are not planned for and addressed in tandem with the reform.

These cases, and our subsequent conclusions, come with limitations. Different types of zoning or land use reforms—such as height limit reductions, multifamily rezoning, parking requirement changes, and inclusionary zoning—have their own technical processes. Our ADU case studies represent one of the simpler land use reforms, considering that ADUs do not usually require impact studies. Although the chosen cities represent very different housing markets, land use planning practices differ by region and

jurisdiction size (Puentes, Martin, and Pendall 2006), and therefore the processes identified in this report may not apply to midwestern or southern jurisdictions or smaller cities, for example. Future research might compare zoning reform processes across regions and housing markets of various sizes.

Zoning reforms need to be embraced within a broader social awareness of the costs of maintaining a city's regulatory status quo and agreement around how to distribute the costs and benefits of the changes equitably. Although outside the scope of this study, the issue of how to create a land use planning and reform process that provides greater equity for low-income residents or renters demands urgent attention. Our case studies demonstrate that processes that attracted more wealthy participants resulted in policies that placed potentially unwanted restrictions on lower-income communities—for example, the Albina owner-occupancy requirement in Portland and the costly special exceptions process that places external ADUs out of reach of lower-income residents in Washington, DC. Additionally, most zoning reforms that increase the development capacity of land have the potential to increase the value of that land (Freemark 2020), and thus the potential economic benefits from land use reforms would accrue to landowners. Current best practices that have sought to make land use reform processes inclusive, such as holding more hearings in low-income neighborhoods or publicizing the proposed revisions and supporting evidence, do not begin to address how to design zoning reforms with equitable benefits because they do not resolve inherently imbalanced incentives and costs or barriers for participating. And the urban planning field lacks documented standards for implementing inclusive and equitable zoning reform processes or for accompanying policies that might mitigate unavoidable inequitable impacts.

This study examined only the process of passing reforms that affect developers' soft costs—such as permitting fees, architecture services, and land use attorney fees—which are only 20 to 30 percent of total development costs (Emrath and Walter 2018). This means that easing zoning restrictiveness alone is unlikely to address all the housing needs of high-cost cities, especially for residents with the lowest incomes.⁴⁶ Different factors may determine the process for passing income-restricted, affordable housing land use laws and encouraging production of such housing, but, again, those lie beyond the scope of this study.

In contrasting Washington, DC, with Portland, these case studies also highlight how a higher governing body, such as a state, or the lack of one can influence the planning and (re)zoning process. Even as blue and red states across the US—including California, Oregon, Washington, Vermont, Utah, Nebraska, and Virginia—begin proposing, debating, and passing legislation that provides zoning standards for local governments, the process for designing and passing legislation that affects or preempts local planning and zoning remains underexplored.

As each of these additional research topics indicates, the two case studies presented in this report are just the tip of a very large body of research that planners who wish to improve their cities' zoning codes to promote equitable housing markets need. We encourage deeper investigation of these matters to provide planners with evidence-based recommendations around zoning reforms tailored to their unique cities' contexts and housing goals.

Notes

- ¹ Michael Neal, Laurie Goodman and Caitlin Young, “Five Facts about Our Housing Supply Explain High Rents and Home Prices,” *Urban Wire* (blog), Urban Institute, January 29, 2020, <https://www.urban.org/urban-wire/five-facts-about-our-housing-supply-explain-high-rents-and-home-prices>.
- ² “Accessory Dwelling Units,” American Planning Association, accessed October 8, 2020, <https://www.planning.org/knowledgebase/accessorydwellings/>.
- ³ Katherine Levine Einstein, David M. Glick, and Maxwell B. Palmer, “Neighborhood Defenders and the Capture of Land Use Politics,” *Data for Progress* (blog), Data for Progress, March 19, 2019, <https://www.dataforprogress.org/blog/2019/3/12/neighborhood-defenders-and-the-capture-of-land-use-politics>.
- ⁴ “American Housing Survey,” US Census Bureau, <https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html>.
- ⁵ Christina Stacy, Chris Davis, Lydia Lo, Graham MacDonald, Vivian Zheng, and Rolf Pendall, “The Impact of Land Use Reforms on the Supply of Affordable Housing,” unpublished manuscript, Urban Institute, October 2020.
- ⁶ Stacy et al., “The Impact of Land Use Reforms on the Supply of Affordable Housing.”
- ⁷ See Stacy et al., “The Impact of Land Use Reforms on the Supply of Affordable Housing” for a discussion of the relationship between supply and affordability stemming from zoning reforms.
- ⁸ Emily Badger and Quoctrung Bui, “Cities Start to Question an American Ideal: A House with a Yard on Every Lot,” *New York Times*, June 18, 2019, <https://www.nytimes.com/interactive/2019/06/18/upshot/cities-across-america-question-single-family-zoning.html>.
- ⁹ See David Alpert, “Rewritten DC Zoning Code Corrects Past Mistakes,” Greater Greater Washington, February 8, 2012, <https://gqwash.org/view/12149/rewritten-dc-zoning-code-corrects-past-mistakes>; and Emily Brown, “Want to Add a Small Apartment to Your House in DC? That Will Soon Be Allowed,” Greater Greater Washington, May 10, 2016, <https://gqwash.org/view/41648/want-to-add-a-small-apartment-to-your-house-in-dc-thats-allowed-now>.
- ¹⁰ Payton Chung, “How DC Once Fit 800,000 Residents,” Greater Greater Washington, July 18, 2013, <https://gqwash.org/view/31818/an-alien-notion-800000-dc-residents>.
- ¹¹ Peter Tatian and Serena Lei, “Demographics” in “Washington, DC: Our Changing City,” Urban Institute, August 2015, <https://apps.urban.org/features/OurChangingCity/demographics/#index>.
- ¹² According to its website, the Committee of 100 on the Federal City is a group of volunteers formed in 1923 to “sustain and safeguard the fundamental values of the L’Enfant and McMillan Plans that give the nation’s capital much of its distinction, beauty and rich community character. As independent citizen advocates for sound planning, [they] are active city-wide in land use planning, zoning, transportation, historic preservation and parks and open space conservation.” The Coalition for Smarter Growth is, according to its website, “the leading organization in the Washington DC region dedicated to making the case for smart growth. Our mission is to promote walkable, inclusive, and transit-oriented communities, and the land use and transportation policies and investments needed to make those communities flourish.”
- ¹³ Each of the District’s ANCs, of which there are currently 40, is governed by popularly elected commissioners; they discuss changes and issues with residents in their neighborhoods and relay these concerns to the mayor.

- ¹⁴ Government of the District of Columbia Zoning Commission, Notice of Final Rulemaking and Z.C. Order No. 08-06A, Case Nos. 08-06A, 08-06B, and 08-06C, January 14, 2016, <https://app.dcoz.dc.gov/Content/Search/Download.aspx?exhibitid=94689>.
- ¹⁵ Government of the District of Columbia Zoning Commission, minutes for regular meeting, December 9, 2013, <https://app.dcoz.dc.gov/trans/131209zc.pdf>.
- ¹⁶ The DC Zoning Changes Network was a group of volunteers from both the white and wealthier Wards 1 and 3 as well as the Black and lower-income Wards 7 and 8 who opposed the ZRR process.
- ¹⁷ DC Zoning Changes Network, “DC Zoning Rewrite: Community Thanks Mayor and Zoning Commission for More Time on Zoning Rewrite; Residents Still Seeking Meaningful Engagement By Office of Planning,” news release, April 23, 2014, http://www.dc4reason.org/zrr/docs/2014_04_23_zrr_more_time_for_zrr.pdf.
- ¹⁸ David Alpert, “Zoning Update Opponents Keep Spreading Misinformation,” Greater Greater Washington, May 8, 2012, <https://ggwash.org/view/27650/zoning-update-opponents-keep-spreading-misinformation>.
- ¹⁹ See “Variance/Special Exception,” DC.gov, accessed October 8, 2020, <https://dcoz.dc.gov/page/VarianceSpecial-Exception>.
- ²⁰ See Coalition for Smarter Growth, “Reinventing the Home: How Accessory Dwelling Units (ADUs) Can Be a Bigger Part of the Housing Solution for DC,” https://salsa3.salsalabs.com/o/2041/p/salsa/event/common/public/?event_KEY=96213.
- ²¹ See “Washington, DC, Accessory Dwelling Units,” Four Brothers Design and Build, accessed September 30, 2020, <https://www.fourbrothersdc.com/services-process/washington-dc-accessory-dwelling-units/>.
- ²² United Planning Organization, “United Planning Organization Announces Launch of ADU DC, an Accessory Dwelling Unit Initiative in Washington, DC,” news release, August 6, 2019, <https://www.upo.org/2019/08/06/adudc/>.
- ²³ Jared Brey, “Program Helps DC Homeowners Provide Low-Cost Housing—and Build Wealth,” Next City, February 18, 2020, <https://nextcity.org/daily/entry/program-helps-dc-homeowners-provide-low-cost-housing-and-build-wealth>.
- ²⁴ City of Portland, Oregon, “Amended Residential Park SDC Fees,” Exhibit A to Ordinance 183682 (April 14, 2020), <https://efiles.portlandoregon.gov/Record/3773350/>.
- ²⁵ ADU permit counts are from the Portland Bureau of Development Services’ ADU database at <https://www.portlandmaps.com/reports/index.cfm?action=accessory-dwelling-unit>. It is updated nightly.
- ²⁶ Jordan Palmeri, “Small Homes: Environmental Benefits and Trends,” Oregon Department of Environmental Quality, August 28, 2012, <https://www.slideshare.net/ORDEQ/deq-building-lca-forwebsite-6minfinal1>.
- ²⁷ City of Portland, Oregon, Ordinance 183598 (March 10, 2010), <https://efiles.portlandoregon.gov/Record/3760634/>.
- ²⁸ City of Portland, Oregon, Resolution 36980 (December 5, 2012), <https://efiles.portlandoregon.gov/Record/5367837/>.
- ²⁹ City of Portland, Oregon, Resolution 37201 (April 13, 2016), <https://efiles.portlandoregon.gov/Record/8991466/>.
- ³⁰ City of Portland, Oregon, Resolution 37353 (May 2, 2018), <https://efiles.portlandoregon.gov/Record/11863056/>.
- ³¹ Kol Peterson, “ADU Permit Trends in Portland in 2017 and 2018,” Accessory Dwellings, January 14, 2019, <https://accessorydwellings.org/2019/01/14/adu-permit-trends-in-portland-in-2017-and-2018/>.

- ³² Building Permits Survey, US Census Bureau, <https://www.census.gov/construction/bps/msaannual.html>.
- ³³ H.B. 2007 A, Reg. Sess. (Or. 2017), <https://olis.leg.state.or.us/liz/2017R1/Measures/Overview/HB2007>.
- ³⁴ S.B. 1051, Reg. Sess. (Or. 2017), <https://olis.leg.state.or.us/liz/2017R1/Measures/Overview/SB1051>.
- ³⁵ “About the Zoning Commission,” DC.gov, accessed September 30, 2020, <https://dcoz.dc.gov/zc/about>.
- ³⁶ DC Zoning Changes Network, “DC Zoning Rewrite: Community Thanks Mayor & Zoning Commission for More Time on Zoning Rewrite; Residents Still Seeking Meaningful Engagement by Office of Planning.”
- ³⁷ Government of the District of Columbia Zoning Commission, minutes for public hearing, February 12, 2014, <https://app.dcoz.dc.gov/trans/140212zc.pdf>.
- ³⁸ “DC Residents Calling for a Halt on the ZRR,” DC Zoning Changes Network: Organizing Around DC’s Future, accessed September 30, 2020, <http://www.dc4reason.org/zrr/moratorium.php>.
- ³⁹ “AICP Code of Ethics and Professional Conduct,” American Planning Association, revised April 1, 2016, <https://www.planning.org/ethics/ethicscode/>.
- ⁴⁰ All quotations in this section are from testimony and comments submitted during the ZRR process in Washington, DC, or from records of public hearings in Portland.
- ⁴¹ Opposition in Washington, DC, differed from Portland’s early opposition in that it had an additional group of residents who opposed the ADU policy not for its content or impacts but simply for the process’s failure to adequately engage, listen to, and prioritize concerns raised by residents in lower-income neighborhoods and neighborhoods with higher shares of Black residents. While residents did not directly oppose the lack of community engagement and outreach in the SDC waiver process, it is important to acknowledge that the history of racist planning practices and lack of community engagement have resulted in opposition to other zoning reforms that disproportionately affected historically Black neighborhoods in Portland (Hughes 2019).
- ⁴² 2013 American Housing Survey data, US Census Bureau, accessed October 11, 2020, <https://www.census.gov/programs-surveys/ahs/data.2013.html>.
- ⁴³ In addition to zoning regulations, housing supply determinants include construction costs, national economic conditions, labor costs and availability, the complexity of subsidies and incentives, and local economic conditions, housing demand, and political climate.
- ⁴⁴ Kol Peterson, “ADU Permit Trends in Portland in 2017 and 2018.”
- ⁴⁵ “Accessory Dwelling Units,” Coalition for Smarter Growth, accessed September 30, 2020, <https://www.smartergrowth.net/adu/>.
- ⁴⁶ Stacy et al., “The Impact of Land Use Reforms on the Supply of Affordable Housing.”

References

- Baron, Madeline, Marley Buchman, Mike Kingsella, Randall Pozdena, and Michael Wilkerson. 2018. "Housing Underproduction in Oregon: Economic, Fiscal and Environmental Impacts of Enabling Transit-Oriented Smart Growth to Address Oregon's Housing Affordability Challenge." Washington, DC: Up for Growth.
- Been, Vicki, Josiah Madar, and Simon McDonnell. 2014. "Urban Land Use Regulation: Are Homevoters Overtaking the Growth Machine?" *Journal of Empirical Legal Studies* 11 (2): 227–65.
- Bradford, D. F., R. A. Malt, and W. E. Oates. 1969. "The Rising Cost of Local Public Services: Some Evidence and Reflections." *National Tax Journal* 22 (2): 185–202.
- Carlin, Timothy Michael. 2014. "Tiny Homes: Improving Carbon Footprint and the American Lifestyle on a Large Scale." Paper presented at Celebrating Scholarship and Creativity Day, St. Joseph and Collegeville, MN, April 24.
- Chapple, Karen, Jake Wegmann, Farzad Mashhood, and Rebecca Coleman. 2018. *Jumpstarting the Market for Accessory Dwelling Units: Lessons Learned from Portland, Seattle, and Vancouver*. San Francisco: Urban Land Institute San Francisco.
- Choi, Jung Hyun, Alanna McCargo, Michael Neal, Laurie Goodman, and Caitlin Young. 2019. *Explaining the Black-White Homeownership Gap*. Washington, DC: Urban Institute.
- DC Office of Planning. 2013. "Presentation to the Zoning Commission: Subtitles A, W, X, Y and Z." Presentation to the Zoning Commission, Washington, DC, November 4.
- DeGrove, John M. 2005. *Planning, Policy and Politics: Smart Growth in the States*. Cambridge, MA: Lincoln Institute of Land Policy.
- District of Columbia. 2007a. "Historic Preservation Element." In *The Comprehensive Plan for the National Capital: District Elements*. Washington, DC: DC Office of Documents and Administrative Issuances.
- District of Columbia. 2007b. "Housing Element." In *The Comprehensive Plan for the National Capital: District Elements*. Washington, DC: DC Office of Documents and Administrative Issuances.
- DRAC (City of Portland, Oregon, Development Review Advisory Committee). 2009. *System Development Charge (SDC) Review Report and Recommendations*. Portland, OR: City of Portland.
- Einstein, Katherine Levine, David Glick, and Maxwell Palmer. 2017. "The Politics of Delay in Local Politics: How Institutions Empower Individuals." Paper presented at the Midwest Political Science Association Conference, Chicago, April 6–9.
- Einstein, Katherine Levine, David M. Glick, and Maxwell Palmer. 2020. *Neighborhood Defenders: Participatory Politics and America's Housing Crisis*. New York: Cambridge University Press.
- Einstein, Katherine Levine, Joseph T. Ornstein, and Maxwell Palmer. 2019. "Who Represents the Renters?" Working Paper.
- Emrath, Paul, and Caitlin Walter. 2018. "Regulation: Over 30 Percent of the Cost of a Multifamily Development." Washington, DC: National Association of Home Builders; National Multifamily Housing Council.
- Fischel, William A. 1992. "Property Taxation and the Tiebout Model: Evidence for the Benefit View from Zoning and Voting." *Journal of Economic Literature* 30 (1): 171–77.
- Fischel, William A. 2001. "Why Are There NIMBYs?" *Land Economics* 77 (1): 144–52.
- Freddie Mac. 2020. "Granny Flats, Garage Apartments, In-Law Suites: Identifying Accessory Dwelling Units from Real Estate Listing Descriptions Using Text Mining." McLean, VA: Freddie Mac.

- Freemark, Yonah. 2020. "Upzoning Chicago: Impacts of a Zoning Reform on Property Values and Housing Construction." *Urban Affairs Review* 56 (3): 758–89.
- Freemark, Yonah, Justin Steil, and Kathleen Thelen. 2020. "Varieties of Urbanism: A Comparative View of Inequality and the Dual Dimensions of Metropolitan Fragmentation." *Politics and Society* 48 (2): 235–74.
- Furth, Salim. 2019. "Development Dividends: Sharing Equity to Overcome Opposition to Housing." Arlington, VA: George Mason University, Mercatus Center.
- Galardi Consulting. 2007. *Promoting Vibrant Communities with System Development Charges*. Portland, OR: Metro.
- Gebhardt, Matthew, Beth Gilden, and Yael Kidron. 2018. *Accessory Dwelling Units in Portland, Oregon: ISS Survey 1st Report*. Portland, OR: Portland State University, Institute for Sustainable Solutions.
- Glaeser, Edward L., and Bryce A. Ward. 2009. "The Causes and Consequences of Land Use Regulation: Evidence from Greater Boston." *Journal of Urban Economics* 65 (3): 265–78.
- Gutheim, Frederick, and Antoinette J. Lee. 2006. *Worthy of the Nation: Washington, DC, from L'Enfant to the National Capital Planning Commission*. Baltimore, MD: Johns Hopkins University Press.
- Gyourko, Joseph, and Raven Molloy. 2014. "Regulation and Housing Supply." Working Paper 20536. Cambridge, MA: National Bureau of Economic Research.
- Hamilton, Bruce W. 1975. "Zoning and Property Taxation in a System of Local Government." *Urban Studies* 12:205–11.
- Hayakawa, Mike. 2010. "Impacts of Regulatory and Fiscal Factors on Accessory Dwelling Unit Construction in the City of Portland." Presentation given to the Portland City Council, Portland, OR, March 3.
- Henig, Jeffrey R., and Wilbur C. Rich, eds. 2003. *Mayors in the Middle: Politics, Race, and Mayoral Control of Urban Schools*. Princeton, NJ: Princeton University Press.
- Heuer, Jim. 2016. "The R2.5 Zone and Achieving Higher Density in Portland's Single Family Zones, a Position Paper." Portland, OR: Portland Coalition for Historic Resources.
- HUD (US Department of Housing and Urban Development). 2016. "Comprehensive Housing Market Analysis: Portland-Vancouver-Hillsboro, Oregon-Washington." Washington, DC: HUD, Office of Policy Development and Research.
- Hughes, Jena. 2019. *Historical Context of Racist Planning: A History of How Planning Segregated Portland*. Portland, OR: Bureau of Planning and Sustainability.
- Infranca, John. 2019. "The New State Zoning: Land Use Preemption amid a Housing Crisis." *Boston College Law Review* 60 (3): 824–87.
- Jaffe, Harry, and Tom Sherwood. 2014. *Dream City: Race, Power, and the Revival of Washington DC*. Argo Navis.
- Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus, and Giroux.
- Liu, Liyi, Douglas A. McManus, and Elias Yannopoulos. 2020. "Geographic and Temporal Variation in Housing Filtering Rates." New York: Social Science Research Network.
- Manville, Michael, Paavo Monkkonen, and Michael Lens. 2020. "It's Time to End Single-Family Zoning." *Journal of the American Planning Association* 86 (1): 106–12.
- Mast, Evan. 2019. "The Effect of New Market-Rate Housing Construction on the Low-Income Housing Market." Working Paper 19-307. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- National Low Income Housing Coalition. 2020. *Out of Reach: The High Cost of Housing*. Washington, DC: National Low Income Housing Coalition.

- Palmeri, Jordan. 2014. "Accessory Dwelling Unit (ADU) Development Trends." Presentation given at Portland State University Transportation Research and Education Center Friday Seminar Series, Portland, OR, November 14.
- Pendall, Rolf. 2000. "Local Land Use Regulation and the Chain of Exclusion." *Journal of the American Planning Association* 66 (2): 125–42.
- Peterson, Kol. 2018. *Backdoor Revolution: The Definitive Guide to ADU Development*. Portland, OR: Accessory Dwelling Strategies LLC.
- Portland Bureau of Planning. 1999. *Adopted Comprehensive Plan Housing Policy*. Portland, OR: Portland Bureau of Planning.
- Portland State University Survey Research Lab. 2013. *Accessory Dwelling Unit Survey for Portland, Eugene, and Ashland, Oregon: Final Methodology and Data Report*. Portland, OR: Oregon Department of Environmental Quality.
- Puentes, Robert, Jonathan Martin, and Rolf Pendall. 2006. *From Traditional to Reformed: A Review of the Land Use Regulations in the Nation's 50 Largest Metropolitan Areas*. Washington, DC: Brookings Institution.
- Rivlin, Alice M. 2003. "Revitalizing Washington's Neighborhoods: A Vision Takes Shape." Washington, DC: Brookings Institution.
- Rothwell, Jonathan. 2019. "Land Use Politics, Housing Costs, and Segregation in California Cities." Berkeley, CA: University of California, Berkeley, Turner Center for Housing Innovation.
- Schuetz, Jenny. 2009. "No Renters in My Suburban Backyard: Land Use Regulation and Rental Housing." *Journal of Policy Analysis and Management* 28 (2): 296–320.
- Steele, Eric H. 1986. "Participation and Rules—The Functions of Zoning." *American Bar Foundation Research Journal* 11 (4): 709–55.
- Taylor, Yesim Sayin. 2018. *Taking Stock of the District's Housing Stock*. Washington, DC: DC Policy Center.
- Taylor, Yesmin Sayin. 2019. *Single-Family Zoning and Neighborhood Characteristics in the District of Columbia*. Washington, DC: DC Policy Center.
- Trounstein, Jessica. 2020. "The Geography of Inequality: How Land Use Regulation Produces Segregation." *American Political Science Review* 114 (2): 443–55.
- Turner, Margery Austin, Leah Hende, Maya Brennan, Peter Tatian, and Kathryn Reynolds. 2019. *Meeting the Washington Region's Future Housing Needs*. Washington, DC: Urban Institute.
- Wegmann, Jake. 2020. "Death to Single-Family Zoning...and New Life to the Missing Middle." *Journal of the American Planning Association* 86 (1): 113–19.
- Wegmann, Jake, and Karen Chapple. 2014. "Hidden Density in Single-Family Neighborhoods: Backyard Cottages as an Equitable Smart Growth Strategy." *Journal of Urbanism: International Research on Placemaking and Urban Sustainability* 7 (3): 307–29.
- Wegmann, Jake, and Alison Nemirow. 2011. "Secondary Units and Urban Infill: A Literature Review." Working Paper 2011-02. Berkeley, CA: University of California, Berkeley, Institute of Urban and Regional Development.

About the Authors

Lydia R.P. Lo is a research analyst in the Metropolitan Housing and Communities Policy Center at the Urban Institute. Her research focuses include land use planning, housing production and affordability, racial equity, urbanization, and urban growth and gentrification in both domestic and international contexts.

Eleanor Noble is a research assistant in the Metropolitan Housing and Communities Policy Center. Her research interests include housing affordability, evictions, and zoning and land use. Her past projects have examined the landscape of landlords in North Minneapolis and public transit use and perception by transgender and gender nonconforming riders.

Diane K. Levy is a principal research associate in the Metropolitan Housing and Communities Policy Center. Since joining Urban in 1998, her work has focused broadly on low- and moderate-income housing and neighborhoods, including studies of housing conditions; the effects of federal and local programs on residents and neighborhoods; implementation and viability of housing provision models, such as mixed-income housing and affordable housing development via inclusionary zoning; and housing discrimination through paired-testing methodologies.

Rolf Pendall is a nonresident fellow at the Urban Institute and professor and head of the department of urban and regional planning at the University of Illinois at Urbana-Champaign. He has more than 30 years' experience as a practitioner, scholar, and educator on urban growth and development issues, including land use planning and regulation; federal, state, and local affordable housing policy and programs; metropolitan growth patterns; and racial residential segregation and the concentration of poverty.

STATEMENT OF INDEPENDENCE

The Urban Institute strives to meet the highest standards of integrity and quality in its research and analyses and in the evidence-based policy recommendations offered by its researchers and experts. We believe that operating consistent with the values of independence, rigor, and transparency is essential to maintaining those standards. As an organization, the Urban Institute does not take positions on issues, but it does empower and support its experts in sharing their own evidence-based views and policy recommendations that have been shaped by scholarship. Funders do not determine our research findings or the insights and recommendations of our experts. Urban scholars and experts are expected to be objective and follow the evidence wherever it may lead.



500 L'Enfant Plaza SW
Washington, DC 20024

www.urban.org