

**CITY OF FREDERICK
PLANNING COMMISSION
PROJECT STAFF REPORT**

June 14, 2021

PROJECT INFORMATION

AGENDA ITEM:	G.
NAME OF PROJECT:	Article 8, Section 802, Accessory Dwelling Units
TYPE OF PROJECT:	Zoning Text Amendment
CASE NUMBER:	PC21-339ZTA
APPLICANT:	Alderman Derek Shackelford
ADDRESS:	101 N. Court Street Frederick, MD 21701
PHONE NUMBER:	
REVIEWED BY:	Gabrielle Collard
DATE:	June 7, 2021
EXHIBITS:	Draft Ordinance ADU Survey Results Supporting Literature Workshop Summary dated 5/17/2021 Public Comment

PROJECT PROPOSAL

The Applicant is requesting a recommendation from the Planning Commission to the Mayor and Board of Aldermen for amendments to the Land Management Code (LMC) pertaining to Accessory Dwelling Units (ADUs).

BACKGROUND INFORMATION

The LMC contains regulations for both Accessory Apartments and Accessory Detached Dwelling Units (ADDUs). Accessory Apartments are secondary dwelling units within a principal, single-family, detached dwelling unit and are intended to be subordinate to that principal use. Accessory Apartments are permitted in residential zoning districts as well as certain nonresidential zoning districts subject to Conditional Use approval by the Zoning Board of Appeals (ZBA); Section 801 establishes the criteria the ZBA must consider. For both residential and nonresidential districts, there are certain minimum lot standards that apply, amongst other criteria.

Accessory Detached Dwelling Units (ADDUs) are also subordinate to the principal dwelling on the property but are separate detached dwelling units and are only permitted

as part of a Planned Neighborhood Development (PND), Traditional Neighborhood Development (TND) or Mixed Use (MU-1 or MU-2) development. As part of the master plan process, the Planning Commission evaluates ADDUs in new developments for their location and dispersion and their relationship to the principal dwelling, including the amount of open/green space on the lots as well as the architectural compatibility.

REVIEWING AUTHORITY & RESPONSIBILITY

Per Section 306 of the LMC, in considering amendments to the Code, the Commission and Mayor and Board must consider if the changes will implement the policies of the Comprehensive Plan and if they are consistent with existing regulations.

STAFF COMMENTS & ANALYSIS

The proposed amendments increase the opportunities and flexibility for establishing ADUs on residential properties. In general, the draft ordinance establishes ADUs as the nomenclature which will be apply to both accessory units integrated into the principal structure as well as detached accessory units. ADUs associated with nonresidential uses are retained as a Conditional Use consistent with the current standards and are required to be integrated into the principal, nonresidential structure. ADUs on residential properties are permitted “by right” through a building permit and are further divided into integrated and detached, where standards are established for the conversion and/or addition to existing detached accessory structures for the purposes of creating and ADU and new construction specifically for the purposes of establishing an ADU. The draft ordinance also establishes limited modification authority for the Planning Commission to consider new construction that does not meet the architectural standards defined therein.

The summary provided for the May Planning Commission workshop provides a detailed outline of the specific changes contained in the draft ordinance, however, since the workshop, there have been several revisions, which are as follows:

- 1) Section 404, Table 404-1, the *Use Matrix*, has been revised to eliminate ADUs in the Mixed Employment (MXE) zoning district as a Conditional Use. There are currently conflicts with regards to Accessory Apartments in the MXE zone which is a predominantly nonresidential floating zone approved through the master plan process. Table 404-1 indicates that Accessory Apartments are allowed as a Conditional Use, but the corresponding Conditional Use criteria in Section 801 excludes any reference to this zone. The *Use Matrix* has been revised so that ADUs are not permitted in the MXE to be consistent with the other proposed changes which only allow ADUs in master planned communities when they are designed as part of the overall master plan.
- 2) Section 802(e)(3) has been revised to indicate that a detached ADU cannot exceed the height of the primary dwelling on the lot or 25’, whichever is less. The height of an addition to an existing accessory structure that does not meet the minimum setbacks established in subsection (f)(3) is limited to 20’.

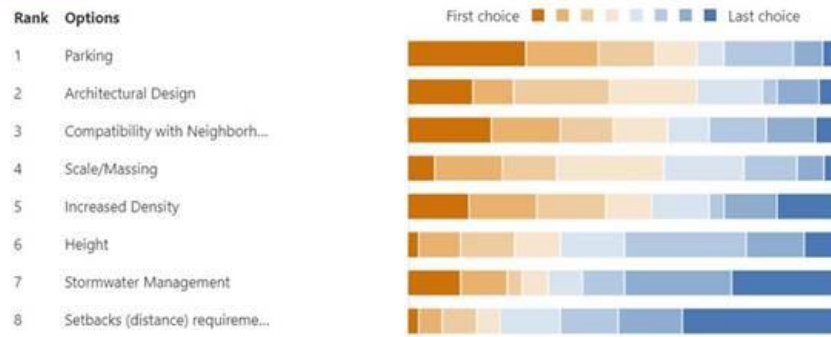
- 3) Section 802(f)(3), the requirement that detached ADUs be located within the rear yard, has been relocated from the section pertaining to conversion and additions to create ADUs so that it only applies to new construction. This would allow for existing structures that may be located in the interior/side yards of corner lots to be converted or added to for the purposes of an ADU but all new construction has to be within the rear yard
- 4) Section 802(f)(4) pertaining to new detached ADUs has been added to indicate that construction must occur on a foundation and in the absence, they would be reviewed as a mobile home, RV, or trailer and cross-referenced Section 867 which restricts anyone from living in such a structure/vehicle for more than a 30-day period except on a farm.
- 5) Section 802(f)(5), the requirement that new ADUs that are greater than 6' from the principal structure be set back from the property lines a distance equal to $\frac{1}{2}$ the requirement for the principal structures has been revised to indicate that at a minimum, a 3' setback must be provided. For example, on a duplex in the R20 district where the minimum required interior/side setback is only 5' on the exterior side of the unit, the ADU would still have to be at least 3' from the side property adjoining the lot that is not the attached unit. This is consistent with the minimum setbacks for other accessory structures.

At the May workshop, the Commission requested additional information on the following items:

- 1) Emergency Response Access – Through discussions with the City's Information Technology staff, who coordinate property addressing with Frederick County who operates the Emergency Response system, and the City's Fire Protection Engineer it was determined that an ADU would be assigned a letter to correspond with the principal dwelling's address, as an example 300 and 300A Oak Street, the "A" pertaining to the accessory unit. This is a standard practice for addressing multiple units on a single property. The City of Frederick Police Department was also contacted and did not express concerns the addressing would delay responses.
- 2) Survey Responses—As part of the initial discussions with the Board of Aldermen in late 2020, a survey was launched to capture public sentiment regarding ADUs. Respondents were asked to respond to three questions and a fourth allowed for respondents to share additional thoughts. The responses to the first two questions are summarized in the graphics below and the detailed responses are provided as Exhibits:

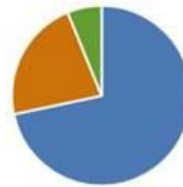
1. Rank the following items in order of most concerning to least concerning regarding ADUs in the City.

[More Details](#)



2. Should the owner be required to live in either the primary residence or in the ADU?

[More Details](#)



- 3) ADUs as Affordable Housing – Much of the research that has been conducted on the benefits of ADUs as affordable housing have occurred in areas where housing prices are the highest or rapidly increasing and where ADUs have a more established history. A 2014 study conducted by the State of Oregon Department of Environmental Quality evaluated ADUs in Portland and concluded that ADUs are a unique resource when it comes to affordable housing due to the high percentage of rent-free units, 13% of the ADUs surveyed, and another 5%, which were charged very low rents for the area (\$500 or less)ⁱ. This finding supports similar trends observed in a 2012 analysis of the San Francisco Bay area where 17% of the units were found to be rent-freeⁱⁱ and is consistent with ADUs being a desirable housing alternative for family members, including older adults. In a 2018 study conducted by AARP a survey of persons 50+ indicated that the primary reasons they would consider creating an ADU is to provide a home for a loved one in need of care and to provide housing for relatives or friends.ⁱⁱⁱ

While the 2014 Portland study results did not conclude that ADUs were more affordable than comparable multifamily dwelling units it did acknowledge that ADUs provide residents with access to amenities that may not be found in traditional multifamily settings, such as private yards and residential neighborhoods in less congested areas.

In considering amendments to the LMC, the Commission should consider the extent to which the changes are consistent with the Code and the degree to which they implement the Comprehensive Plan.

With regards to consistency with the existing regulations, the proposed standards for detached ADUs are based on the existing requirements for accessory structures established in Section 803 of the LMC as well as those that pertain to principal dwelling units per Section 405, Table 405-1. For example, a detached accessory structure, such as a garage that is within 6' of the principal structure (the home) must meet the minimum setbacks prescribed in Table 405-1 for the home; Section 802(f)(3) also requires that a newly constructed ADU that is within 6' of the home meet those principal structure setbacks. For a new ADU that is greater than 6' from the home, the setbacks of Table 405-1 are reduced by ½, not less than 3', which in many cases, exceeds the standard setbacks for other accessory structures, but at a minimum, is the same as what would be required.

Similarly, the proposed height of a newly constructed ADU is consistent with the height permitted for a standard accessory structure like a garage. Section 803(a)(7) in the LMC currently indicates that an accessory structure may not be higher than 25' or the height of the existing principal structure on the lot, whichever is lower. This same language is proposed for Section 802(e)(3) in the draft ordinance with the exception of additions to existing accessory structures being constructed for the purposes of creating an ADU that do not meet the new setbacks for a detached ADU, those structures are limited to 20' in height. For example, a homeowner with an existing garage that is only 3' from the property lines who is seeking to do an addition to that garage to create an ADU would be limited to 20' in height, resulting in potentially more horizontal construction versus vertical construction. This, however, would also be limited by the required compliance with the existing impervious surface ratio as well as lot coverage requirements.

The 2020 Comprehensive Plan does not go into effect until October 1, 2021, and as such, the text amendment should be considered in the context of the 2010 Comprehensive Plan, however, there are common goals and objectives between the two that the proposed amendments support. Below is a summary and comparison:

2010 Comprehensive Plan

Land Use Element:

- Policy LU1; Encourage development to be compatible with the character of existing or planned development in the vicinity.
- Implementation Strategies 1 – Mitigate potential negative impacts of development through site design, including location of facilities and access, building height, scale and massing and buffers between different uses.
- Implementation Strategy 2 – Identify impediments to infill development.

The proposed building height limitations, setbacks, size, and required compliance with the Impervious Surface Ratio and the maximum yard coverage requirements for accessory structures, coupled with the requirement for parking to serve the ADU and the subsequent compliance with the residential driveway regulations of Section 803 all serve to create the building envelope for an ADU and are consistent with the standards for residential development, including accessory structures like garages that currently exist. Through the application of these provisions, the negative impacts of ADUs should be mitigated. In expanding the applicability of the ADU provisions to residential areas outside of master planned communities, the draft ordinance is eliminating impediments to infill opportunities.

- Policy LU 4, Implement a City-Wide land use pattern that supports desired level of population growth.
- Implementation Strategy 2 – Provide for a mix of housing types so that moderately priced housing is available for those employed within the City of Frederick.

As discussed above and in the supporting documents, ADUs provide another alternative housing option for family members and tenants as well as provide rental income for homeowners.

Housing Element

- Policy HE 1, Facilitate the development of an adequate housing supply for current and future City residents.
- Policy HE2, Promote the development of housing with costs that reflect the range of incomes generated within the City.

Within the DC region, the Metropolitan Washington Council of Governments (MWCOC) has established three regional housing targets to address the amount of housing, affordability, and accessibility needed. MWCOC data indicates that regional housing targets must increase significantly in order to not only provide needed housing but to ensure that housing is affordable to residents. Regionally, 320,000 new housing units should be added to the region between 2020 and 2030, which is an additional 75,000 units beyond what was already forecasted (245,000). Of these new units, at least 75% of new housing should be affordable to low- and middle-income households. Also, at least 75% of all new housing should be in activity centers or near high-capacity transit centers in order to increase accessibility and reduce vehicular traffic. Both the City and Frederick County are identified as activity centers within the DC region.^{iv}

2020 Comprehensive Plan

The 2020 Comprehensive Plan contains policies that reflect many of the same goals and objectives as the 2010 Plan with regards to housing and the character of new infill

development, however, much more attention is given to the role that ADUs may play. In the 2010 Plan there is only one reference made to ADUs and that is in the context of future opportunities for senior housing; comparatively, there are nine specific references to ADUs in the 2020 Plan including their reference in the new land use classification descriptions for moderate and medium density residential development and specifically referenced in the Land Use and Housing policies and implementation strategies.

- LU Policy 1, Encourage development and redevelopment to be compatible with the character of existing or planned development.
- Implementation Strategy 7--Support new housing types that are being demanded by the sharing economy, including housing such as accessory dwelling units, micro-units, tiny homes, units that share common facilities, and other units that are not considered traditional.
- HO Policy 6, Support diverse residential development in the City.
- Implementation Strategy 2 -- Allow flexibility in providing accessory dwelling units in compatible districts that currently do not permit such units.
 - Consider eliminating or reducing impact fees on affordable dwelling units.

STAFF RECOMMENDATION

ACTION 1:

Request: A recommendation from the Planning Commission to the Mayor and Board for approval of the proposed text amendment pertaining to ADUs.

Staff Findings: The amendments are consistent with the existing regulations and implement the Land Use and Housing Elements of the 2010 Comprehensive Plan.

Recommendation: Staff supports a positive recommendation to the Mayor and Board for text amendment PC21-339ZTA.

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- ⁱ Brown, Martin. 2014. "Accessory Dwelling Units in Portland, Oregon: evaluation and interpretation of a survey of ADU owners."
- ⁱⁱ Wegmann, Jake, and Karen Chapple. 2012. "Understanding the Market for Secondary Units in the East Bay", October. <http://escholarship.org/uc/item/9932417c.pdf>.
- ⁱⁱⁱ Spevak, Eli and Stanton, Melissa. 2019. "The ABCs of ADUs: A guide to Accessory Dwelling Units and how they expand housing options for people of all ages"
- ^{iv} City of Frederick. 2020. The City of Frederick Comprehensive Plan

**THE CITY OF FREDERICK
MAYOR AND BOARD OF ALDERMEN**

ORDINANCE NO: G-21-_____

AN ORDINANCE concerning

Accessory dwelling units

FOR the purpose of revising a certain definition; adding a certain notice requirement; allowing accessory dwelling units as a permitted use in certain zoning districts; allowing accessory dwelling units as a conditional use in certain zoning districts; imposing certain approval criteria; establishing certain minimum lot requirements; and generally relating to accessory dwelling units within the City of Frederick.

BY repealing and reenacting, with amendments,

Section 301
Appendix A, "Land Management Code"
The Code of the City of Frederick 1966 (as amended)

BY repealing and reenacting, with amendments,

Section 404
Appendix A, "Land Management Code"
The Code of the City of Frederick, 1966 (as amended)

BY repealing,

Sec. 801
Appendix A, "Land Management Code"
The Code of the City of Frederick, 1966 (as amended)

BY repealing,

Section 802
Appendix A, "Land Management Code"
The Code of the City of Frederick, 1966 (as amended)

BY adding,

Section 802
Appendix A, "Land Management Code"
The Code of the City of Frederick, 1966 (as amended)

By repealing and reenacting, with amendments,

Section 803
Appendix A, "Land Management Code"
The Code of the City of Frederick, 1966 (as amended)

BY repealing and reenacting, with amendments,

Section 1002

Appendix A, "Land Management Code"

The Code of the City of Frederick 1966 (as amended)

SECTION I. BE IT ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That the Code of the City of Frederick, 1966 (as amended), Appendix A (Land Management Code), § 301, be repealed and reenacted with amendments, as follows:

- (a) Pre-application process. *****
- (b) Application. *****
- (c) Development Review Conference (DRC). *****
- (d) Notice provisions. *****

Table 301-1 Notice Requirements

Application	Reviewing Body	Publication	Signage	Mailing	NAC Meeting
Annexation	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	mandatory with every NAC sharing a boundary with the area proposed to be annexed
	Board of Aldermen	In accordance with § 4-406 of the Local Government Article, Annotated Code of Maryland	at least 15 days before the hearing	at least 18 days before the hearing	
Master Plan	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	mandatory
	Board of Aldermen	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	at least 15 days before the hearing	at least 18 days before the hearing	not required
Area Plan	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	mandatory
	Board of Aldermen	once each week for 2 successive weeks, the first of which is published at least 14	at least 15 days before the hearing	at least 18 days before the hearing	

		days before the hearing			
Zoning Map Amendments	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application>	within 8 days after filing the application	mandatory
	Board of Aldermen	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	at least 15 days before the hearing	at least 18 days before the hearing	
Major Site Plan	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	mandatory
Minor Site Plan	Division	one time at least 14 days before DRC	within 8 days after filing the application	within 8 days after filing the application	mandatory
Preliminary Subdivision Plat	Planning Commission	two separate dates in 2 consecutive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	mandatory
Final Subdivision Plat Requiring Planning Commission Approval	Planning Commission	two separate dates in 2 consecutive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	mandatory
Final Subdivision Plat Requiring Deputy Director Approval and Public Notice	Division (pursuant to Table 505-1)	one time at least 14 days before DRC	within 8 days after the filing the application	within 8 days after filing the application	mandatory
Preliminary Forest Conservation Plan	Planning Commission	two separate dates in 2 consecutive weeks, the first of which is published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	mandatory
Fence Modification	Planning Commission	not required	at least 15 days before the hearing	not required	not required
<u>ADU Modification</u>	<u>Planning Commission</u>	<u>Not required</u>	<u>at least 15 days before the hearing</u>	<u>not required</u>	<u>not required</u>
Land Management Code Text Amendments	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	not required	not required	not required
	Board of Aldermen	once each week for 2 successive weeks, the first of which is published at least 14	not required	not required	not required

		days before the hearing			
Comprehensive Plan Text Amendments	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	not required	If a text amendment affects a specific geographical area, notices should be sent out to the adjoining property owner within 8 days after filing the application	not required
	Board of Aldermen	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	not required	If a text amendment affects a specific geographical area, notices should be sent out to the adjoining property owner 18 days before hearing.	not required
Comprehensive Plan Map Amendments	Planning Commission	once each week for 3 successive weeks, the first of which must be published at least 14 days before the hearing	within 8 days after filing the application	within 8 days after filing the application	not required
	Board of Aldermen	three separate dates in three consecutive weeks, the first of which must be published at least 14 days before the hearing	at least 15 days before hearing	at least 18 days before the hearing	
Conditions During Comprehensive Rezoning Per § 307(d) of this LMC	Board of Aldermen	two separate dates in 2 consecutive weeks, the first of which is published at least 14 days before the public hearing	not required	not required	not required
Development Rights and Responsibilities Agreement	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	not required	not required	not required
	Board of Aldermen	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	not required	not required	not required
Variances, Conditional Uses, Temporary Uses, Nonconforming Uses, and Other Actions Subject to the Original Jurisdiction of the ZBA	Zoning Board of Appeals	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	at least 15 days before the hearing	at least 18 days before the hearing	not required
Administrative Adjustments for Residential Accessibility	Division	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	at least 10 days before approval	not required	not required

Historic Preservation Overlay (HPO) Designation	Historic Preservation Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing	For individual site or structure, applicant shall post sign at least 15 days before hearing. For proposed district or adjustment to the boundaries of a district, Division shall post sign at least 30 days before hearing.	For individual site or structure, applicant shall mail notices at least 18 days before hearing. For proposed district, Division shall mail notices at least 30 days before hearing.	mandatory
	Planning Commission	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing			
	Board of Aldermen	once each week for 2 successive weeks, the first of which is published at least 14 days before the hearing			
HPO Review of Major changes (major exterior rehabilitation, adaptive reuse, etc.)	Historic Preservation Commission	at least 7 days before the hearing	at least 7 days before the hearing	not required	not required
HPO Review of Minor Changes & Improvements (administrative approval)	Division	not required	not required	not required	not required

(e) **Scope of action.** ***

(f) **Public hearing.** ***

(g) **Post-decision proceedings.** ***

(h) **Judicial review.** ***

SECTION II. BE IT FURTHER ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That the Code of the City of Frederick, 1966 (as amended), Appendix A (Land Management Code), § 404, Table 404-1 be repealed and reenacted, with amendments, by deleting “accessory apartments” and modifying “accessory detached dwelling unit”, as follows:

Table 404-1 Use Matrix

Use	R C	R O	R 4	R 6	R 8	R 12	R 16	R 20	P B	N C	G C	M O	M 1	M 2	D B	D R	DB O	MU	MX E	I S T	P R K	LBCS Function	LBCS Structure	NAIC S
Residential Uses																								
Accessory Apartments			G	G	G	G	G	G	P	G	G		G	G	P	G	G	P	P	G				
Accessory Detached Dwelling Unit		<u>P or C*</u>	P	P	P	P	P	P	-	<u>C</u>	<u>C</u>	<u>C</u>	<u>C</u>	<u>C</u>		P	<u>P or C*</u>	[P]	<u>[C]</u>	<u>C</u>				

***subject to Section 802**

SECTION III. BE IT FURTHER ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That the Code of the City of Frederick, 1966 (as amended), Appendix A (Land Management Code), § 801 be repealed in its entirety.

SECTION IV. BE IT FURTHER ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That the Code of the City of Frederick, 1966 (as amended), Appendix A (Land Management Code), § 802 be repealed and a new § 802 be added to read as follows:

Sec. 802 ACCESSORY DWELLING UNITS (ADUs)

(a) Purpose. The purposes of this section are to:

- (1)** promote the development of housing with costs that reflect the range of incomes generated within the City while protecting the quality of life of existing neighborhoods;
- (2)** make additional dwelling units available in the City with the objective of increasing the amount of affordable housing to the public;
- (3)** promote opportunities for a variety of housing types for current and future residents of all income levels.
- (4)** improve the availability of housing for the elderly and individuals with disabilities as well as shelter for the homeless; and
- (5)** support diverse residential development in the City.
- (6)** Promote new development that is compatible with the character of the existing neighborhood.

(b) Nonresidential properties.

- (1)** As indicated in the use matrix (Table 404-1 of this LMC), in the NC, GC, MO, M1, M2, MXE, and IST districts, an ADU is allowed as a conditional use on a nonresidential property
- (2)** If the principal structure on the property is used for a nonresidential purpose, an ADU is allowed as a conditional use on a nonresidential property in the DBO and RO districts.
- (3)** The approval of an ADU as a conditional use is subject to the following conditions:
 - A.** The ADU must be integrated into the principal structure containing the nonresidential use.
 - B.** The principal structure must be designed to provide a separate entrance for the ADU.

- C. There must be at least one parking space in addition to the required number of parking spaces required for the principal use. The additional space must be located in the rear yard or the side yard.
- D. An ADU must meet the following minimum lot area requirements:

Zoning District	Lot area per ADU
RO DBO	6,000 square feet
NC GC IST MO M1 M2	10,000 square feet

- E. The residents of the ADU will be protected from noise, traffic, air pollution or other hazards associated with the nonresidential use.

(c) Residential properties – general requirements.

- (1) As indicated in the use matrix (Table 404-1 of this LMC), in the RO, R4, R8, R12, R16, R20, DBO, and DR districts, an ADU is permitted by right on a lot with a single family detached dwelling, a duplex dwelling, or a townhouse dwelling subject to the following conditions:
 - A. Only one ADU may be established on a lot.
 - B. If the parking serving the primary residence on the lot is less than or equal to the minimum required parking per Table 607-1 of this LMC, one additional parking space must be provided. If the conversion of an existing structure to an ADU eliminates parking for the primary residence, additional parking must be provided for the primary residence equal to the number of spaces lost as well as for the ADU.
 - C. The property owner must live in either the primary residence or the ADU.
 - D. The dwelling not occupied by the property owner may not be leased for a period of less than 90 days.
 - E. A home occupation may not be located within an ADU.
 - F. Before the City issues building permits for the construction of an ADU, the property owner must record a declaration of restrictions containing a reference to the deed under which the property was acquired. The declaration must:
 - 1. be binding upon all successors in ownership;

2. require that within 60 days after the sale of the property, the new owner must file with the Planning Division an ADU registration acknowledging the deed restrictions on the property; and
3. require all property owners to abide by this section.

(d) Residential properties - integrated ADUs.

- (1) This subsection applies to an ADU integrated within an existing principal residence or within a proposed addition to the principal residence.
- (2) An integrated ADU cannot comprise more than 35% of the gross floor area of the principal structure.
- (3) Any new separate entrance for the ADU must be on the rear of the building or a side of the building that is not a street side.

(e) Residential properties - detached ADUs in existing structures.

- (1) This subsection applies to an ADU within an existing accessory structure or an addition to an existing accessory structure.
- (2) The ADU may not exceed 800 square feet in area.
- (3) Except as otherwise provided in this paragraph, the height of an ADU may not exceed the height of the principal structure on the lot or 25 feet, whichever is less. The height of an addition to an existing accessory structure that does not meet the minimum setbacks established in subsection (e)(3) of this section may not exceed 20 feet.
- (4) A lot on which an ADU is located is subject to the impervious surface ratio requirements of Section 405, Table 405-1 of this LMC and the maximum rear yard coverage requirements of Section 803 of this LMC.

(f) Residential properties – detached ADUs in new accessory structures.

- (1) This subsection applies to the construction of a new accessory structure to be used as an ADU after [date].
- (2) In addition to the requirements of this subsection, the structure must meet the requirements of subsection (e)(2) through (e)(4) of this section.
- (3) The ADU must be located in the actual rear yard of the principal structure.
- (4) Detached ADUs must be constructed on a foundation. Structures not designed permanently as such are subject to the provisions of Section 867(g) applicable to trailers, mobile homes, and recreational vehicles.
- (5) The minimum interior setback and minimum rear setback required for an ADU located less than 6 feet from the principal structure is the setback established under Table 405-1 of this LMC. Each minimum setback for an ADU located more

than 6 feet from the principal structure is either half of the setback required under Table 405-1 of this LMC or 3', whichever is greater.

- (6) Unless the Planning Commission modifies this requirement in accordance with paragraph (6) of this subsection, the exterior building materials of the ADU must include building materials used in the construction of the primary residence.
- (7) Unless the Planning Commission modifies this requirement in accordance with paragraph (6) of this subsection, an ADU must include at least one of the following design elements:
 - A. a pitched roof;
 - B. a dormer located above each window; or
 - C. windows oriented so that the length of the vertical side is at least twice and not more than three times the horizontal length.
- (8) The Planning Commission may grant a modification upon finding that:
 - A. the modification will not be contrary to the purpose and intent of the LMC;
 - B. the modification is consistent with the comprehensive plan;
 - C. the proposed structure includes compensating design or architectural features so as to meet the overall objectives of this section of the Code; and
 - D. the proposed structure is consistent with the scale and design of the surrounding neighborhood.

(g) TNDs, PNDs, and MU Zones.

- (1) An accessory dwelling unit proposed to be located in a TND, PND, or MU development must be approved as part of the master plan for that development.
- (2) In reviewing the master plan, the Reviewing Authority will consider:
 - A. the number of ADUs proposed;
 - B. the compatibility between the exterior building materials of the structure proposed to contain the ADU and the materials and features of the principal structure;
 - C. the ratio of open space and greenspace on a lot; and
 - D. the proposed setbacks and building heights

- (3) No more than 10% of the lots containing detached single family dwelling units in a development may include ADUs.
- (h) **Parkland dedication.** ADUs approved as part of a master plan will provided parkland dedication in accordance with Section 608(b)(2).
- (i) **Adequate Public Facilities.** An ADU will be deemed a multifamily dwelling unit for purposes of the APFO.

SECTION IV. BE IT FURTHER ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That The Code of the City of Frederick, 1966 (as amended), Appendix A (Land Management Code), § 803 be repealed and reenacted, with amendments, as follows:

Sec. 803 ACCESSORY USES AND STRUCTURES

- (a) **Accessory Uses and Structures—General Regulations.** Accessory uses and structures which are customarily incidental to the permitted principal use or structure, which are clearly subordinate to the permitted principal use or structure and which do not significantly alter the character of the permitted principal use or structure are permitted subject to requirements of this section 803. This subsection (a) does not apply [to] to: a driveway or other paved parking area in a residential zoning [district] district; or an accessory dwelling unit.
 - (1) Accessory uses and structures shall be located on the same parcel as the permitted principal use or structure.
 - (2) Except as provided by subsection (d), no accessory use or structure shall be located within any required front yard.
 - (3) Any accessory uses and structures located within six feet of the permitted principal use or structure or attached in any manner to the principal use or structure shall comply with the setback (yard) requirements of such permitted principal use or structure.
 - (4) Unless otherwise regulated by this Code all accessory uses and structures which are separated from the principal use or structure by more than six feet shall be located at least three feet from every lot line and six feet from every street or alley right-of-way line.
 - (5) In the DR, DBO and DB Districts the minimum setback for an accessory structure along the side lot lines is 0'.
 - (6) Unless otherwise regulated by this Code the lot coverage of uses or structures that are accessory to a residential principal use shall not exceed 30 percent of the actual rear yard where they are being placed. [For purposes of this section, "actual rear yard" means that portion of a lot, extending between the two interior lot lines, between the rear lot line and a line parallel to the rear lot line at the point where the rear facade of the dwelling unit is closest to the rear lot line.] The following are exempt from this requirement:
 - A. Accessory residential structures in the DR, DB, DBO districts; and

B. Decks, landings, and related open stairs.

- (7) An accessory structure may not be higher than 25 feet or the height of the existing principal structure on the same lot, whichever is lower, except in conjunction with agriculture or industrial [use, or an ADDU as provided in Section 802 of this LMC.] use.

(b) **Zoning Certificate.** ***

(c) **Accessory Structure for Domestic or Farm Animals.** ***

(d) **Accessory Structures in Front Yards.** ***

(e) **Corner Lots.** **

(f) **Portable Storage Containers.** ***

(g) **Residential Driveways and Parking Areas.** ***

SECTION V. AND BE IT FURTHER ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That The Code of the City of Frederick, 1966 (as amended), Appendix A (Land Management Code), §1002 be repealed and reenacted, with amendments, by adding and amending certain definitions, as shown below.

Actual Rear Yard.

That portion of a lot, extending between the two interior lot lines, between the rear lot line and a line parallel to the rear lot line at the point where the rear facade of the dwelling unit is closest to the rear lot line

[Accessory Dwelling Unit

A small detached accessory dwelling unit rented or occupied by the owner of the lot on which it is located with toilet and culinary accommodations, use or designated as a residence, with a separate entrance, which is located in a proposed structure. This use is subordinate to the principal single family dwelling unit existing on the same lot.]

Accessory Dwelling Unit

A secondary dwelling unit established in conjunction with and subordinate to a primary dwelling unit, whether a part of the same structure as the primary home or a detached dwelling unit on the same lot.

Adequate Public Facilities Ordinance or APFO

The City's Adequate Public Facilities Ordinance, Chapter 4 of the Frederick City Code.

[Resident Owner

The person whose permanent residence is in the principal structure or the ADDU and who has title to a lot where there is a single family dwelling unit and an ADDU or a proposal for an ADDU.]

SECTION VI. BE IT FURTHER ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That in the event any provision, section, sentence, clause, or

part of this ordinance shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause, or part of this ordinance, it being the intent of the City that such remainder shall be and shall remain in full force and effect.

SECTION VII. BE IT FURTHER ENACTED AND ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FREDERICK, That this ordinance shall take effect on March 28, 2021 and all other ordinances or parts of ordinances inconsistent with the provisions of this ordinance will as of that date be repealed to the extent of such inconsistency.

NOTE: Underlining indicates material added

[Bold brackets] indicate material deleted

*** indicates no change

APPROVED: PASSED:

Michael C. O'Connor, Mayor

Michael C. O'Connor, President,
Board of Aldermen

Approved for Legal Sufficiency:

City Attorney

1. Rank the following items in order of most concerning to least concerning regarding ADUs in the City.

Parking

Increased Density

Architectural Design

Scale/Massing

Height

Compatibility with Neighborhood Character

Stormwater Management

Setbacks (distance) requirements

2. Should the owner be required to live in either the primary residence or in the ADU?

☐

Yes

☐

No

☐

3. There are different processes for the varying types of structures that can be built in the City. Which entities should approval authority for ADUs?

☐

Board of Aldermen

☐

Planning Commission

☐

Zoning Board of Appeals

☐

Historic Preservation Commission (as applicable)

☐

Building Inspector

☐

Other Public Meeting

☐

4. Please share your additional thoughts on ADUs in The City of Frederick.

Decision should stay away from alderman

100% in favor

I would suggest that the purchase of a property with ADU should require it to be the personal primary residence for x number of years and not be allowed to be purchased as rental property. However, if an owner wishes to move and retain the property they once lived in it, that should be allowed if they remain local and with some interest in maintaining the property and its value to the community. How are private landlords regulated in the city?

ADU should be significantly smaller than main DU.

The effects, laws, etc. regarding transfers of property ownership...i.e. what happens when the owner moves, dies?

Concerned that these structures would be utilized as rental properties, thus affecting parking and density. On the plus side, many of the existing ADU structures exist in comprised/dilapidated condition. Opening up the possible uses of these would encourage reconstruction and a better looking community for all.

I am all for them, but I do think that care must be taken to ensure seamless integration into the neighborhood where it is being built. I am also concerned of creating too much red tape for owners to navigate.

Rentals of ADUs, either long term or as Air B n B's will significantly CHANGE the character of a neighborhood. Few renters, especially short term renters, have a vested interest in the actual neighborhood where they are located. Additionally, the owner ABSOLUTELY should live in the main dwelling or ADU. Also, there will be a need for an enlarged Code Enforcement Department as they are strapped now trying to handle the current number of existing homes, plus the number of homes in the pipeline to be developed.

F&\$# landlords, build more high density AFFORDABLE housing, and F&\$# off with these garbage 55+ only neighborhoods.

ADUs are a great way to increase affordability and density. Height limits should just make it so they conform with the neighborhood around them. Setbacks need to be as flexible as possible so that as many lots as possible can have ADUs. There should not be parking requirements for ADUs as that is burdensome. The city should look at best practices on this issue, and avoid making the process overly burdensome and/or expensive. Homeowners benefit when technical assistance is available as well as pre-approved plans.

Eliminate on site parking requirement in downtown. Eliminate impact fees. It is very expensive for an individual property owner to add an ADU and overall very few people elect to do this. Why disincentivize with impact fees for adding what would probably be 1 or 2 people, especially downtown?

I am against this proposal because: 1. It will have negative impact of the environment in the city. 2. It will add to the city's storm water problems. 3. This proposal will take away the basic zoning protection that every single family homeowner counted on when we purchased our homes. 4. There is no assurance that this will produce any affordable housing. 5. Newer developments have home owners associations which were imposed by the original developers but older neighborhoods have depended on the Board of Aldermen to provide protection. Finally, why are you moving this proposal in the middle of this pandemic. We citizens cannot gather and meet and organize to resist this proposal. Remote gatherings are inconvenient or impossible for elderly homeowners. This whole process should be put on hold until the Pandemic is over.

Very bad idea.

They have the potential to provide additional low income housing with little adverse impact.

ADUs are a great way to address housing affordability, urban sprawl, and modern (i.e. multigenerational) families. As a NAC 9 resident, I am wholeheartedly in favor of ADUs and believe the City should encourage their development through no Peking requirements and a simple approval process.

how are ADUs taxed, are taxes different if the owner lives onsite or not, if rented out how are rents documented, how is parking controlled, etc etc

Families today are multigenerational. Allowing These sorts of units would be helpful in so many ways for this type of family structure. They could be very helpful for adult children starting their adult lives as well as grandparents hoping to be closer to their children and grandchildren.

They should be allowed. People should be able to utilize their land and accommodate their families. Requirements should be in place to make sure that accommodations are done well but none the less should be allowed.

I think ADU's are great ways to add affordable housing to any neighborhood. They also provide owners more opportunities for earning additional income, therefore (hopefully) reinvesting into their property and the community. They also serve a variety of demographics, from service industry workers, young professionals, and multigenerational households - which helps diversify our community. ADUs that are located in walkable neighborhoods and downtown Frederick, where density should be encouraged, can only help our growing number of local shops and businesses. It would be great if the city could provide some kind of grant program or work with local lenders to provide specialized loans for ADUs. Per the current guidelines and size restrictions and infrastructure needs, these units will often lend themselves to being very small and therefore will not compete well against other rental options and command the rent they need to cover their expenses to construct. If grants or local lenders cant provide other financing options, when tapping into your homes equity is not an option, it really limits the number of home owners who could justify the 150k-200k expense and receive low rents that wont cover the loan payment. I would personally like to consider an ADU on my property but DBO zoning currently does not allow detached dwelling units, while having much

less restrictive setbacks etc. which seems slightly counterintuitive.

Given the draconian historical rules and building height restrictions, ADUs are an easy way to add more housing options downtown. My primary concern would be residential parking, which is essentially not enforced, and need to restrict ADUs from being used as Airbnbs in downtown area.

They are an important component of our City and should be encouraged where they fit it

The city can't take care of parking and overcrowding now, how are going to handle this? You're making the city worse.

Detached ADU's are the key to a successful ADU program. As a society, having the space available for in-laws or secondary income will improve the way of life in Frederick.

ADUs = more folks able to live closer to public transportation, jobs. This means better local economy. More senior citizens can age in place. Please include the historical district. Back yards in the historic district are good spots for small ADUs. Ideally without the historical commission's approval needed.

ADUs should be authorized as quickly as possible in alignment with Frederick County government policy. The approval and review of ADUs should be handled by city staff with a clear and orderly appeal process for homeowners.

in my area of the city there are still issues with overcrowding and "boarding houses". no additional changes should be made to city code until the city gets control over these problems. parking is also a huge issue. other problems are overcrowded schools, unreported income from renters, unsafe interior changes to houses without inspections.

I believe in re-instating them. Consideration to build them should meet existing codes and procedures for submitting plans and the approval process.

I worry we will lose privacy and increase strain on city resources

No impact fees

There needs to be careful, fact-based consideration of an change in land use that superceedes current zoning to 'densify' city neighborhoods. I am concerned about environmental impacts (more density = more stormwater runoff and reduction in greenspace). If this proposal moves forward, I believe it is imperative that residents of neighboring properties be informed of what is planned and have the opportunity for input. In addition, regulations should ensure that neighboring properties are not negatively impacted by construction of ADUs. The example Alderman Russel shared at the November workshop is an important cautionary example. The quality of life of both current residents and potential ADU residents should be protected.

I am 100% against this. I feel as though we are already exploding with population that was are not ready for. Please do not add to the problem

There should be great consideration given for storm water management. The city already has significant issues with water and flooding. Keeping permeable area around dwellings is so important. And we are seeing large houses such as those on West Second St. using up most of that permeable space. Also, homes should fit the neighborhood in appearance and height. They should not impact

their existing neighbors with runoff issues or visually.

Given sufficient space on a property, I feel ADUs could provide an option for housing needs in the city, whether for affordability or proximity for family caregivers,

Rentals should be long-term, not of the Airbnb, Home Away, or Vrbo type. I want neighborhoods to be made stronger and more diverse with the addition of ADUs. I do not want them hollowed out by absentee landlords.

Careful thought needs to be put in to ensure that neighborhoods without HOA's aren't impacted negatively. Enforce the codes for setback, height, # of residents in ADU,

I do not want additional dwelling units to be granted. It will drastically change the character and feel of Frederick.

This is a massive take-back from every single family property that is affected in Frederick. You are eliminating the basic zoning protection that has been in place for generations. you have failed to define how many properties will be affected. Will neighborhoods with HOA's be exempt? Why? How many modest cost units will be produced? Why are you moving forward with this massive rezoning in the midst of this pandemic. Previous major zoning changes have featured massive citizen involvement with large public meetings and citizens groups gathering and discussing the proposed changes. We cannot gather because of the Covid-19 restrictions. Remote meetings are not possible for many residents, especially elderly residents. You should slow down until the pandemic is past.

in a growing city, these should be allowed. they should be in keeping with the design of the home but allow downtown residents to maximize their properties, especially for aging family members. Housing is scarce and limiting ADUs only compound the problems.

First, this survey is too confining. You should begin by asking people what their concerns are - not just telling them to rank the concerns you are interested in. In arranging priorities you forgot the uses for ADUs. In many jurisdictions a significant portion are used for short term rentals. The Mayor and Alderman have not foreseen the necessity of creating regulation for short term rentals so this may become a significant issue. Other issues: will owners be allowed to tear down garages and other structures to create an ADU? Will there be parking restrictions or requirements?

Negative impact on neighborhood character and neighbors when build dwelling units at the rear of property. This has nothing to do with "rental". There are apartments and rooming houses in my neighborhood without issue. Additions to the main structure could be allowed to meet "need"s without fundamentally changing the way a lot functions. Which neighborhoods would absorb the City's "demand"? Impact on open and green space & parking congestion.

This is a nonsense and slanted survey. The survey already assumes that this ADU regulation will be put in place. I think the city has a lot of nerve trying to regulate these ADUs when the city already has a planning use code and designation for all property in the city. If I want to build a "mother in law" apartment on my property and it meets present code then the city should stay out of it.

If considered, ADDU regulations should include all of the City including HOAs and other restrictive areas.

In general I am against ADUs in Frederick. Is there a minimum lot size that would be required?

ADUs appear to be a way to circumvent the predominant zoning. I'm generally not in favor of them at all. If they are to be allowed, they must be limited to a small percentage of available lot size.

Why do there need to be so many restrictions on personal property? Is it revenue driven?

I think if they fit into the architectural design of the city, they are a wonderful addition.

The only real concerns I would like to express are 1) Permitting: people who have skirted the current laws by tapping into garage laundry area water taps and adding a "dwelling" without going through the zoning process (would these be grandfathered in or required to change zoning into "rental property"), 2) Flooding: the height of potentially many garage upper story units, as the gutters on one built close to my house placed the gutters not into the green space but had the gutter water running into the alley which flooded my yard and my neighbors yard, both getting water into the basement. 3 & 4) Green spaces & potential flooding areas, as the same neighbor mentioned earlier, was to maintain "green space" when he built his two car garage but then paved the entrance to his garage, thus reducing the required green space. 4). Another Point to consider is how many people would, if they could afford, to put an ADU above their garage, as there were many downtown basement rental dwellings that flooded a couple of years ago, thus decreasing income for the lease holders. How would an increase of dwelling impact the run off/flooding areas pondering would it decrease or increase flooding? I am curious, what is the motive to increase ADU's? if it is to accommodate for elderly family members then a 1 story unit is more practical than a second story to a garage.

I don't think it is wise to lump people together who are all in the same economic status. Rather, people should be mixed in with those of a higher economic status. I feel this helps to give those in a lower financial position to receive a hand up by those in the neighborhood. The new residents should be required to take education betterment classes or training. If successful, they can move up and out and leave the ADU for the next person. This should not be looked at as a forever home but as one step in making a better future. Those who are really handicapped are a different story. However, I believe we all know people who claim to be "physically unable" so they can receive money from the system. Some are generational claimants who only know this way to live. I feel there are a lot of opportunities to help families to grow.

If access to a public alley or right of way is available, and the lot size supports it, then why not? Each ADUs will support 1-2 people looking to live downtown

Just allow them

I would like to see ADU's in,y neighborhood.

I think promoting ADUs would be a fantastic way to improve affordable housing especially for multi generation family living

Would have been nice if the list of "most concerning/least concerning" included things like affordable housing and accommodating multi-generational and special needs housing. Why focus entirely on perceived negatives?

I think in some parts of Frederick, they could be great. My concern is parking/overcrowding in already congested areas.

I think opening up the flexibility here will be critical with the new normal in creating alternate spaces

for home offices.

I fully support ADUs. Please support ADUs

The City should encourage ADUs, not over regulate it to the point where it is impossible. No commission should be involved, the building inspector should ensure it meets building codes. The building height and setbacks should be the same as the current regulations. We should be promoting this type of living arrangement close to downtown and in existing neighborhoods

I am not happy with having an ADU next-door and not knowing how the tenants are screened. I have a child and feel I should know who is renting an ADU next door.

The recovery of expensive renovations to create a ADDU will require an owner to charge rent that offsets any possible consideration of solving a low intent situation in the city.

Increased traffic will turn our alley ways into streets which makes it dangerous for children to play and neighbors to work in their backyard

Additions to houses and garages will likely require the removal of large trees and other landscaping that will create a harsh view and eliminate shade in many neighboring yards

They should be encouraged because they lessen the need/desire for more townhouses and McMansions in the fields and forests surrounding this beautiful town.

I am against any new development and since ADUs go on existing property, there could be less need for new developments. Seriously, stop building new apartment complexes that only rich people can afford! (East of Market, Bottling Plant)

This would be great for seniors with limited income.

I think these are a great option for seniors to avoid nursing homes, etc. and allow them to remain close to family. I would like to see this made a relatively easy process for families, providing

Small living spaces can be an advantage to the entire community by creating living spaces that fit people's needs and reduce waste of space, energy, and costs. I believe the city of Frederick would be a shining example of possibility by having a solid plan for routinely allowing such living arrangements and it would be a collective win.

ID	Start time	Completion time	Email
1	1/14/21 8:59:01	1/14/21 9:01:17	anonymous
2	1/14/21 9:04:33	1/14/21 9:09:18	anonymous
3	1/14/21 9:10:49	1/14/21 9:13:50	anonymous
4	1/14/21 9:07:03	1/14/21 9:14:54	anonymous
5	1/14/21 9:12:54	1/14/21 9:14:55	anonymous
6	1/14/21 9:04:10	1/14/21 9:15:25	anonymous
7	1/14/21 9:16:44	1/14/21 9:20:29	anonymous
8	1/14/21 9:19:54	1/14/21 9:21:00	anonymous
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55	1/16/21 18:38:13	1/16/21 18:56:39 anonymous
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57	1/17/21 8:52:04	1/17/21 8:58:33 anonymous
58	1/17/21 9:01:56	1/17/21 9:03:45 anonymous
59	1/17/21 9:41:59	1/17/21 9:52:01 anonymous
60	1/17/21 12:23:43	1/17/21 12:31:13 anonymous
61	1/17/21 14:18:48	1/17/21 14:28:34 anonymous
62	1/17/21 16:33:22	1/17/21 16:44:36 anonymous
63	1/17/21 21:50:27	1/17/21 21:52:05 anonymous
64	1/18/21 9:50:41	1/18/21 9:52:38 anonymous
65	1/18/21 12:40:54	1/18/21 12:43:46 anonymous
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69	1/19/21 19:51:57	1/19/21 19:54:15 anonymous
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73	1/20/21 17:22:09	1/20/21 17:27:45 anonymous
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79	1/21/21 14:21:28	1/21/21 14:31:21 anonymous
80	1/21/21 14:18:54	1/21/21 14:31:58 anonymous
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87	1/24/21 8:10:03	1/24/21 8:18:07 anonymous
88	1/24/21 14:23:50	1/24/21 14:28:17 anonymous
89	1/24/21 15:44:34	1/24/21 15:50:06 anonymous
90	1/24/21 16:13:48	1/24/21 16:19:55 anonymous
91	1/24/21 15:56:52	1/24/21 16:32:37 anonymous
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96	1/24/21 19:37:09	1/24/21 19:41:10 anonymous
97	1/24/21 19:41:10	1/24/21 19:44:23 anonymous
98	1/24/21 20:10:11	1/24/21 20:13:17 anonymous
99	1/24/21 21:07:01	1/24/21 21:10:40 anonymous

100	1/24/21 21:20:42	1/24/21 21:30:04	anonymous
101	1/24/21 21:29:50	1/24/21 21:33:05	anonymous
102	1/24/21 22:16:55	1/24/21 22:18:56	anonymous
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104	1/26/21 10:03:23	1/26/21 10:06:46	anonymous
105	1/26/21 10:07:04	1/26/21 10:07:36	anonymous
106	1/26/21 10:07:41	1/26/21 10:10:03	anonymous
107	1/26/21 10:10:05	1/26/21 10:13:07	anonymous
108	1/26/21 10:25:26	1/26/21 10:31:55	anonymous
109	1/27/21 15:59:22	1/27/21 16:02:42	anonymous
110	1/27/21 17:00:56	1/27/21 17:03:21	anonymous
111	1/27/21 19:52:32	1/27/21 19:56:16	anonymous
112	1/28/21 6:13:38	1/28/21 6:25:25	anonymous
113	1/31/21 16:28:39	1/31/21 16:33:53	anonymous

Name	Language	Rank the following item: Should the owner be rec
	English (United States)	Increased Density;Parkin; No
	English (United States)	Parking;Increased Densit; Yes
	English (United States)	Increased Density;Scale/I; No
	English (United States)	Stormwater Managemen; Yes
	English (United States)	Architectural Design;Con; No
	English (United States)	Parking;Height;Architect; In the County
	English (United States)	Increased Density;Scale/I; Yes
	English (United States)	Compatibility with Neigh; Yes
	English (United States)	Scale/Massing;Increased not sure I understand the
	English (United States)	Parking;Scale/Massing;Cr; Yes
	English (United States)	Parking;Increased Densit; Yes
	English (United States)	Parking;Architectural Des; yes, if renting the ADU to
	English (United States)	Compatibility with Neigh; Yes
	English (United States)	Increased Density;Height; Yes
	English (United States)	Parking;Compatibility wit; Yes
	English (United States)	Parking;Compatibility wit; Yes
	English (United States)	Stormwater Managemen; Yes
	English (United States)	Increased Density;Parkin; Yes
	English (United States)	Stormwater Managemen; Yes
	English (United States)	Parking;Scale/Massing;In; Yes
	English (United States)	Height;Setbacks (distan; Yes
	English (United States)	Parking;Scale/Massing;H; Yes
	English (United States)	Scale/Massing;Increased; Yes
	English (United States)	Setbacks (distance) requi; Yes
	English (United States)	Scale/Massing;Height;Co; No
	English (United States)	Increased Density;Storm; Yes
	English (United States)	Parking;Setbacks (distan; Yes
	English (United States)	Stormwater Managemen; Yes
	English (United States)	Architectural Design;Scal; Yes
	English (United States)	Architectural Design;Stor; No
	English (United States)	Architectural Design;Park; Yes
	English (United States)	Stormwater Managemen; No
	English (United States)	Parking;Stormwater Man; Yes
	English (United States)	Parking;Stormwater Man; Maybe. More discussion
	English (United States)	Increased Density;Comp; Yes
	English (United States)	Architectural Design;Con; Yes
	English (United States)	Stormwater Managemen; No
	English (United States)	Architectural Design;Scal; No
	English (United States)	Parking;Stormwater Man; Yes
	English (United States)	Increased Density;Storm; Yes
	English (United States)	Compatibility with Neigh; No
	English (United States)	Scale/Massing;Stormwat; Yes
	English (United States)	Increased Density;Parkin; Yes
	English (United States)	Parking;Compatibility wit; Yes
	English (United States)	Parking;Increased Densit; Yes
	English (United States)	Architectural Design;Con; Yes
	English (United States)	Parking;Architectural Des; Yes
	English (United States)	Parking;Stormwater Man; Yes
	English (United States)	Architectural Design;Scal; No

English (United States)	Increased Density;Parkin; Yes
English (United States)	Architectural Design;Con Or have a management c
English (United States)	Compatibility with Neigh Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Height;Scale/Massing;Ari No
English (United States)	Increased Density;Storm; Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Stormwater Managemen Yes
English (United States)	Parking;Increased Densit Yes
English (United States)	Setbacks (distance) requi Yes
English (United States)	Setbacks (distance) requi Yes
English (United States)	Architectural Design;Incr Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Parking;Increased Densit No
English (United States)	Increased Density;Storm; Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Scale/Massing;Parking;In Yes
English (United States)	Stormwater Managemen Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Height;Setbacks (distan No
English (United States)	Compatibility with Neigh Yes
English (United States)	Compatibility with Neigh Yes
English (United States)	Increased Density;Architi Yes
English (United States)	Increased Density;Parkin; The city should stay out c
English (United States)	Compatibility with Neigh Yes
English (United States)	Parking;Scale/Massing;In Yes
English (United States)	Parking;Stormwater Man Yes
English (United States)	Scale/Massing;Parking;St Yes
English (United States)	Architectural Design;Con No
English (United States)	Stormwater Managemen Yes
English (United States)	Parking;Increased Densit Yes
English (United States)	Architectural Design;Con Yes
English (United States)	Stormwater Managemen No
English (United States)	Increased Density;Comp; Yes
English (United States)	Scale/Massing;Architectu Yes
English (United States)	Compatibility with Neigh No
English (United States)	Architectural Design;Con Yes
English (United States)	Architectural Design;Heig No
English (United States)	Architectural Design;Scal Yes
English (United States)	Parking;Stormwater Man Yes
English (United States)	Architectural Design;Park No
English (United States)	Compatibility with Neigh Yes
English (United States)	Parking;Increased Densit No
English (United States)	Parking;Architectural Des No
English (United States)	Stormwater Managemen Yes to owner occupied, c
English (United States)	Increased Density;Parkin; No
English (United States)	Compatibility with Neigh Yes

English (United States)	Stormwater Managemen	Yes
English (United States)	Parking;Architectural Des	Yes
English (United States)	Parking;Compatibility wit	Yes
English (United States)	Parking;Increased Densit	Yes
English (United States)	Compatibility with Neigh	Yes
English (United States)	Parking;Compatibility wit	Yes
English (United States)	Compatibility with Neigh	Yes
English (United States)	Compatibility with Neigh	Yes
English (United States)	Architectural Design;Hei	No
English (United States)	Stormwater Managemen	No
English (United States)	Parking;Increased Densit	Yes
English (United States)	Stormwater Managemen	Yes
English (United States)	Parking;Compatibility wit	No
English (United States)	Compatibility with Neigh	No

There are different processes. Please share your additional comments.

Planning Commission;

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable); Building Inspector;

Building Inspector; Decision should stay away from alderman

Planning Commission; Zoning Board of Appeals; Building Inspector;

Planning Commission; 100% in favor

I don't know; I would suggest that the purchase of a property with ADU should require it to be the same size as the main house.

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable);

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable);

Planning Commission; His ADU should be significantly smaller than main DU.

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable); Other Public Meeting;

Board of Aldermen; Planning Commission; The effects, laws, etc. regarding transfers of property ownership...i.e. what happens when you sell the property?

Planning Commission; Zoning Board of Appeals; Concerned that these structures would be utilized as rental properties, thus affecting the character of the neighborhood.

Planning Commission; Zoning Board of Appeals; Building Inspector;

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable); Building Inspector;

Planning Commission; Zoning Board of Appeals; I am all for them, but I do think that care must be taken to ensure seamless integration with the existing neighborhood.

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable);

Planning Commission;

Planning Commission; Rentals of ADUs, either long term or as Air B n B's will significantly CHANGE the character of the neighborhood.

Planning Commission; Historic Preservation Commission (as applicable); Building Inspector;

Planning Commission; His Fuck landlords, build more high density AFFORDABLE housing, and fuck off with the current system.

The approval process should be streamlined. ADUs are a great way to increase affordability and density. Height limits should just be increased.

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable); Building Inspector;

Board of Aldermen;

Planning Commission; Historic Preservation Commission (as applicable); Building Inspector;

Should be by right if properly sited. Eliminate on site parking requirement in downtown. Eliminate impact fees. It is very important to have a streamlined process.

Planning Commission; His I am against this proposal because: 1. It will have negative impact of the environment. 2. It will increase traffic. 3. It will increase noise.

Planning Commission; Zoning Board of Appeals; Very bad idea.

Planning Commission; They have the potential to provide additional low income housing with little adverse impact on the neighborhood.

Board of Aldermen; Planning Commission; Zoning Board of Appeals;

Zoning Board of Appeals; ADUs are a great way to address housing affordability, urban sprawl, and modern (i.e. walkable) neighborhoods.

Board of Aldermen; Planning Commission; Historic Preservation Commission (as applicable);

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable);

Historic Preservation Commission (as applicable); Building Inspector;

NAC affected by application. How are ADUs taxed, are taxes different if the owner lives onsite or not, if rented out?

Board of Aldermen;

Historic Preservation Commission; Families today are multigenerational. Allowing these sorts of units would be helpful for families.

Planning Commission; His They should be allowed. People should be able to utilize their land and accommodate their families.

Planning Commission; His I think ADU's are great ways to add affordable housing to any neighborhood. They are a great way to increase density.

Building Inspector; Given the draconian historical rules and building height restrictions, ADUs are an excellent way to increase density.

Planning Commission; Historic Preservation Commission (as applicable); Building Inspector;

Planning Commission; His They are an important component of our City and should be encouraged where the zoning allows.

Planning Commission; Historic Preservation Commission (as applicable);

Board of Aldermen; Planning Commission; The city can't take care of parking and overcrowding now, how are they going to handle it?

Planning Commission; Historic Preservation Commission (as applicable); Building Inspector; Other Public Meeting;

Planning Commission; Historic Preservation Commission (as applicable); Other Public Meeting;

Planning Commission; Zoning Board of Appeals; Historic Preservation Commission (as applicable); Building Inspector;

Permitting office; Detached ADU's are the key to a successful ADU program. As a society, having the ability to live closer to public transportation, jobs, and amenities is a goal.

Building Inspector; ADUs = more folks able to live closer to public transportation, jobs. This means better access to public transportation, jobs, and amenities.

Zoning Board of Appeals; ADUs should be authorized as quickly as possible in alignment with Frederick County's goals.

Board of Aldermen;Plann in my area of the city there are still issues with overcrowding and "boarding houses follow existing procedure I believe in re-instating them. Consideration to build them should meet existing cod Planning Commission;Zoi I worry we will lose privacy and increase strain on city resources

Planning Commission;Historic Preservation Commission (as applicable);

Historic Preservation Cor No impact fees

Zoning Board of Appeals; There needs to be careful, fact-based consideration of an change in land use that su

Other Public Meeting;

Zoning Board of Appeals; I am 100% against this. I feel as though we are already exploding with population

Board of Aldermen;Planning Commission;Historic Preservation Commission (as applicable);

Board of Aldermen;Plann There should be great consideration given for storm water management. The city a

Planning Commission; Given sufficient space on a property, I feel ADUs could provide an option for housin

Board of Aldermen;Plann Rentals should be long-term, not of the Airbnb, Home Away, or Vrbo type. I want n

Planning Commission;Zoi Careful thought needs to be put in to ensure that neighborhoods without HOA's are

Planning Commission;Zoi I do not want additional dwelling units to be granted. It will drastically change the c

Historic Preservation Commission (as applicable);Building Inspector;

Zoning Board of Appeals;Historic Preservation Commission (as applicable);

Building Inspector;

Board of Aldermen;Plann This is a massive take-back from every single family property that is affected in Frec

Planning Commission;Historic Preservation Commission (as applicable);Building Inspector;

Zoning Board of Appeals;Building Inspector;

Building Inspector; in a growing city, these should be allowed. they should be in keeping with the desig

Planning Commission;His First, this survey is too confining. You should begin by asking people what their conc

Planning Commission;

Planning Commission;

Building Inspector;

Zoning Board of Appeals; Negative impact on neighborhood character and neighbors when build dwelling uni

NONE. Stay out of persor This is a nonsense and slanted survey. The survey already assumes that this ADU req

Board of Aldermen;Plann If considered, ADDU regulations should include all of the City including HOAs and ot

Planning Commission;Zoning Board of Appeals;Building Inspector;

Planning Commission;Zoi In general I am against ADUs in Frederick. Is there a minimum lot size that would b

Planning Commission;Zoi ADUs appear to be a way to circumvent the predominant zoning. I'm generally not

Historic Preservation Cor Why do there need to be so many restrictions on personal property? Is it revenue d

Board of Aldermen;Planning Commission;Historic Preservation Commission (as applicable);Other Public Meet

Planning Commission;Zoning Board of Appeals;Building Inspector;

Planning Commission;His I think if they fit into the architechtrual design of the city, they are a wonderful addi

Board of Aldermen;Plann The only real concerns I would like to express are 1) Permitting: people who have sk

Other Public Meeting; I don't think it is wise to lump people together who are all in the same economic sta

Planning Commission; If access to a public alley or right of way is available, and the lot size supports it, the

No approval required; Just allow them

Planning Commission;Bui I would like to see ADU's in,y neighborhood.

Other Public Meeting; I think promoting ADUs would be a fantastic way to improve affordable housing esp

Overall, I think ADUs sho Would have been nice if the list of "most concerning/least concerning" included thi

Planning Commission;

Planning Commission;Zoning Board of Appeals;Building Inspector;

Building Inspector;

Planning Commission;His I think in some parts of Frederick, they could be great. My concern is parking/overc

Historic Preservation Cor I think opening up the flexibility here will be critical with the new normal in creating

Planning Commission;Zoi I fully support ADUs. Please support ADUs

Zoning Board of Appeals;Building Inspector;

Planning Commission;Building Inspector;

Building Inspector; The City should encourage ADUs, not over regulate it to the point where it is impos:
Board of Aldermen;Plann I am not happy with having an ADU next-door and not knowing how the tenants are
Building Inspector;
Planning Commission;Zoning Board of Appeals;Historic Preservation Commission (as applicable);
Board of Aldermen;Zonin The recovery of expensive renovations to create a ADDU will require an owner to cl
Board of Aldermen;Zoning Board of Appeals;Other Public Meeting;
Board of Aldermen;Zonin Increased traffic will turn our alley ways into streets which makes it dangerous for c
Board of Aldermen;Zonin Additions to houses and garages will likely require the removal of large trees and ot
Planning Commission;His They should be encouraged because they lessen the need/desire for more townhou
Board of Aldermen;Plann I am against any new development and sicne ADUs go on existing property, there c
Building Inspector; This would be great for seniors with limited income.
Board of Aldermen;Plann I think these are a great option for seniors to avoid nursing homes, etc. and allow th
Planning Commission;Zoi Small living spaces can be an advantage to the entire community by creating living s
Planning Commission;

e personal primary residence for x number of years and not be allowed to be purchased as rental property

ing parking and density. On the plus side, many of the existing ADU structures exist in comprised/dilapidated

tion into the neighborhood where it is being built. I am also concerned of creating too much red tape for

racter of a neighborhood. Few renters, especially short term renters, have a vested interest in the actual

make it so they conform with the neighborhood around them. Setbacks need to be as flexible as possible

y expensive for an individual property owner to add an ADU and overall very few people elect to do this. 1. It is not in the city. 2. It will add to the city's storm water problems. 3. This proposal will take away the basic z

.e. multigenerational) families. As a NAC 9 resident, I am wholeheartedly in favor of ADUs and believe that

I in so many ways for this type of family structure. They could be very helpful for adult children starting to start their families. Requirements should be in place to make sure that accommodations are done well but it also provide owners more opportunities for earning additional income, therefore (hopefully) reinvesting in the city's way to add more housing options downtown. My primary concern would be residential parking, which

er local economy. More senior citizens can age in place. Please include the historical district. Back yards in city government policy. The approval and review of ADUs should be handled by city staff with a clear and o

". no additional changes should be made to city code until the city gets control over these problems. pa

perceedes current zoning to 'densify' city neighborhoods. I am concerned about environmental impacts

lready has significant issues with water and flooding. Keeping permeable area around dwellings is so imp

neighborhoods to be made stronger and more diverse with the addition of ADUs. I do not want them holl

lerick. You are eliminating the basic zoning protection that has been in place for generations. you have fa

n of the home but allow downtown residents to maximize their properties, especially for aging family m
cerns are - not just telling them to rank the concerns you are interested in. In arranging priorities you for

its at the rear of property. This has nothing to do with "rental". There are apartments and rooming house
gulation will be put in place. I think the city has a lot of nerve trying to regulate these ADUs when the city

in favor of them at all. If they are to be allowed, they must be limited to a small percentage of available l

ckirted the current laws by tapping into garage laundry area water taps and adding a "dwelling" without ge
atus. Rather, people should be mixed in with those of a higher economic status. I feel this helps to give th

ngs like affordable housing and accommodating multi-generational and special needs housing. Why focu

sible. No commission should be involved, the building inspector should ensure it meets building codes. Th

ould be less need for new developments. Seriously, stop building new apartment complexes that only ric

hem to remain close to family. I would like to see this made a relatively easy process for families, providir
spaces that fit people's needs and reduce waste of space, energy, and costs. I believe the city of Frederick

y. However, if an owner wishes to move and retain the property they once lived in it, that should be allowed.

ed condition. Opening up the possible uses of these would encourage reconstruction and a better looking

ial neighborhood where they are located. Additionally, the owner ABSOLUTELY should live in the main dw

e so that as many lots as possible can have ADUs. There should not be parking requirements for ADUs as

Why disincentivize with impact fees for adding what would probably be 1 or 2 people, especially downtown
oning protection that every single family homeowner counted on when we purchased our homes. 4. The

e City should encourage their development through no Peking requirements and a simple approval process

heir adult lives as well as grandparents hoping to be closer to their children and grandchildren.

nto their property and the community. They also serve a variety of demographics, from service industry workers
:h is essentially not enforced, and need to restrict ADUs from being used as Airbnbs in downtown area.

n the historic district are good spots for small ADUs. Ideally without the historical commission's approval

arking is also a huge issue. other problems are overcrowded schools, unreported income from renters, uns

(more density = more stormwater runoff and reduction in greenspace). If this proposal moves forward, I

ortant. And we are seeing large houses such as those on West Second St. using up most of that permeabl

ailed to define how many properties will be affected. Will neighborhoods with HOA's be exempt? Why? H

got the uses for ADUs. In many jurisdictions a significant portion are used for short term rentals. The Ma

s in my neighborhood without issue. Additions to the main structure could be allowed to meet "need"s v
' already has a planning use code and designation for all property in the city. If I want to build a "mother

ing through the zoning process (would these be grandfathered in or required to change zoning into "ren
ose in a lower financial position to receive a hand up by those in the neighborhood. The new residents sh

ne building height and setbacks should be the same as the current regulations. We should be promoting t

c would be a shining example of possibility by having a solid plan for routinely allowing such living arrange

wed if they remain local and with some interest in maintaining the property and its value to the communi

velling or ADU. Also, there will be a need for an enlarged Code Enforcement Department as they are stra

that is burdensome. The city should look at best practices on this issue, and avoid making the process ov

ere is no assurance that this will produce any affordable housing. 5. Newer developments have home ow

workers, young professionals, and multigenerational households - which helps diversify our community. A

believe it is imperative that residents of neighboring properties be informed of what is planned and have

le space. Also, homes should fit the neighborhood in appearance and height. They should not impact thei

low many modest cost units will be produced? Why are you moving forward with this massive rezoning i

ayor and Alderman have not foreseen the necessity of creating regulation for short term rentals so this m

without fundamentally changing the way a lot functions. Which neighborhoods would absorb the City's "in law" apartment on my property and it meets present code then the city should stay out of it.

tal property"), 2) Flooding: the height of potentially many garage upper story units, as the gutters on one could be required to take education betterment classes or training. If successful, they can move up and on

oped now trying to handle the current number of existing homes, plus the number of homes in the pipeli

erly burdensome and/or expensive. Homeowners benefit when technical assistance is available as well as

ners associations which were imposed by the original developers but older neighborhoods have depende

\DUs that are located in walkable neighborhoods and downtown Frederick, where density should be encc

the opportunity for input. In addition, regulations should ensure that neighboring properties are not neg

n the midst of this pandemic. Previous major zoning changes have featured massive citizen involvement

ay become a significant issue. Other issues: will owners be allowed to tear down garages and other stru

built close to my house placed the gutters not into the green space but had the gutter water running into
ut and leave the ADU for the next person. This should not be looked at as a forever home but as one step

ed on the Board of Aldermen to provide protection. Finally, why are you moving this proposal in the midc

uraged, can only help our growing number of local shops and businesses. It would be great if the city coi

gatively impacted by construction of ADUs. The example Alderman Russel shared at the November works

with large public meetings and citizens groups gathering and discussing the proposed changes. We cann

o the alley which flooded my yard and my neighbors yard, both getting water into the basement. 3 & 4) C
in making a better future. Those who are really handicapped are a different story. However, I believe we

ble of this pandemic. We citizens cannot gather and meet and organize to resist this proposal. Remote ga

uld provide some kind of grant program or work with local lenders to provide specialized loans for ADUs.

hop is an important cautionary example. The quality of life of both current residents and potential ADU re

not gather because of the Covid-19 restrictions. Remote meetings are not possible for many residents, esp

green spaces & potential flooding areas, as the same neighbor mentioned earlier, was to maintain "green
: all know people who claim to be "physically unable" so they can receive money from the system. Some :

gatherings are inconvenient or impossible for elderly homeowners. This whole process should be put on h

Per the current guidelines and size restrictions and infrastructure needs, these units will often lend them

space" when he built his two car garage but then paved the entrance to his garage, thus reducing the re
are generational claimants who only know this way to live. I feel there are a lot of opportunities to help f

selves to being very small and therefore will not compete well against other rental options and command

quired green space. 4). Another Point to consider is how many people would, if they could afford, to put

d the rent they need to cover their expenses to construct. If grants or local lenders cant provide other finæ

an ADU above their garage, as there were many downtown basement rental dwellings that flooded a cou

ancing

iple of ye



JUMPSTARTING THE MARKET FOR ACCESSORY DWELLING UNITS:

LESSONS LEARNED FROM PORTLAND, SEATTLE AND VANCOUVER

Karen Chapple, Jake Wegmann, Farzad Mashhood, and Rebecca Coleman



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FOR HOUSING
INNOVATION**
UC BERKELEY

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Cover Photo credit: Clockwise from top left: Accessory Dwellings, <http://www.accessorydwellings.org>; Karen Chapple; Accessory Dwellings, <http://www.accessorydwellings.org>; Accessory Dwellings, <http://www.accessorydwellings.org>.

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The Urban Land Institute's mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI San Francisco carries forth that mission by serving the Bay Area's public and private sectors with pragmatic land use expertise and education.

The Turner Center for Housing Innovation formulates bold strategies to house families from all walks of life in vibrant, sustainable, and affordable homes and communities.

The Center for Community Innovation's mission is to nurture effective solutions that expand economic opportunity, diversify housing options, and strengthen connection to place.

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WHY ACCESSORY DWELLING UNITS?

Across the United States, communities are experiencing challenges in building the housing they need to maintain affordability and accommodate future growth. Accessory dwelling units (ADUs), or separate small dwellings embedded within single-family residential properties, are an effective solution due to their low cost and immediate feasibility, with homeowners building in their own backyards.¹ In fact, California researchers suggest that such small-scale infill development could account for as much as half of new development capacity in coming decades.² Many cities and states have recently passed legislation easing zoning and permitting regulations for ADUs, most notably Senate Bill 1069/Assembly Bill 2299 in California, signed into law on January 1, 2017.³

Despite government attempts to reduce barriers, a widespread surge of ADU construction has not materialized.⁴ The ADU market remains stalled. To find out why, this study looks at three cities in the Pacific Northwest of the United States and Canada that have seen a spike in construction in recent years: Portland, Seattle, and Vancouver. Each city has adopted a set of zoning reforms, sometimes in combination with financial incentives and outreach programs, to spur ADU construction. Due to these changes as well as the acceleration of the housing crisis in each city, ADUs have begun blossoming.

Based on a homeowner survey and stakeholder interviews, this report tells the story of successful ADU implementation in the three cities, to help policymakers enact more effective reforms. Homeowners in these cities have embraced ADUs because of the flexibility these units provide, with the ability to use the space as housing or office, for rental income or a friend/family member in need, depending on the circumstances. Because construction costs are relatively low, the housing produced is generally affordable: the majority of new ADUs are leased for below-market rents. Many homeowners experienced barriers in terms of zoning, permitting, or finance, but solutions emerged, often due to city actions.

The report begins with a brief review of previous research on barriers to identify the gaps in our knowledge. It then describes the context for ADUs in the three cities, including the policies each implemented to spur more construction. Next, the report turns to the survey methods and results. A conclusion suggests policy approaches to spur more ADU construction. Most prominent among them are efforts to make loans for ADU projects more accessible to more homeowners. This would be a difficult undertaking but one with a likely high payoff. In addition, providing city-approved manuals detailing the regulatory, design, and project management processes for ADU projects for homeowners, coupled with technical assistance and promotional efforts would also likely help boost production.

UNDERSTANDING THE BARRIERS TO ADUS

Several factors clearly deter homeowners from constructing ADUs. Most prominent are the zoning and permitting barriers, including the building and lot regulations and permitting fees. These not only can make building an ADU physically infeasible, but also can constitute a psychological barrier for homeowners who already have minor code violations or face neighbor opposition with regard to new construction. Lack of capital is another challenge, with lenders hesitant to develop loan products tailored to this housing type. At a most basic level, homeowners—and even contractors—lack experience with the overall process, and can be too intimidated to even start.

Zoning laws put in place since the post-World War II housing boom have largely restricted ADU development in many US contexts.⁵ Historically, even when states like California have taken specific steps to undo restrictive zoning practices, local governments continued to impose burdensome regulatory requirements and delay enactment of local laws.⁶ Restrictions on parking, lot size, and setbacks can render ADU construction prohibitively expensive or impossible on many lots.⁷ Beyond specific zoning practices, neighborhood group opposition to increased density can deter policymakers from allowing ADUs.⁸ Yet, organized efforts to reverse regulatory barriers have increased, beginning with the American Association of Retired Persons, which wrote a model state law in 2000, and are now apparent in websites like accessorydwellings.org.⁹

Many studies have explored financial barriers, including high upfront costs and the inability to access loans.¹⁰ A study of Oregon ADU owners found that most owners actually built theirs out of cash savings.¹¹ Developers may not see adding an ADU as providing enough of a profit margin.¹² Structural challenges also make borrowing for an ADU difficult. Most lending institutions do not allow appraisals to factor in the expected rental income from an ADU to estimate market value of a residential property. Because of this and other factors, homes with ADUs were found in one study to be undervalued by up to 9.8%.¹³

Another barrier can be the experience level of the ADU developer. Those building ADUs tend to be homeowners unfamiliar with real estate and construction and see building an ADU as a major and risky project.¹⁴ Navigating zoning and building codes could be a barrier for those not experienced with development, or concerned about city inspectors flagging unrelated code violations on their lot.¹⁵

The greater variety and prevalence of rental housing in Canada raise questions about how the institutional context may shape construction. For example, secondary suites (to use a Canadian term largely equivalent to attached ADUs)—both legal and illegal—have long been an important supply of rental housing across cities, towns, and rural areas.¹⁶ In order to encourage the upgrading of units to meet building, fire and safety standards, many local governments have developed popular programs that provide inter-



ADU in Portland, photo credit: Tom Hudson's ADU, <http://www.accessorydwellings.org>.

Jumpstarting the Market for ADUs

est-free loans and forgivable grants.¹⁷ Because the National Model Construction Codes provide the basis for provincial codes, regulations tend to be similar across municipalities, a streamlining that may aid developers.¹⁸

In addition to these regulatory and financial barriers, other contextual factors may affect how many ADUs get built. For instance, in some regions, ADUs are already part of the landscape, whether because of the architectural vernacular (in places where in-law units have commonly been built), cultural practices of multigenerational living, or high housing demand from immigrants, students, and other groups facing rental housing shortages (many living in unpermitted dwellings). In others, such as planned subdivisions or common interest developments managed by owners' associations, ADUs are rare or nonexistent. Likewise, a region's topography and amount of buildable land can shape ADU construction patterns; one obvious example is San Francisco, which has seen considerable backyard living due in part to its constrained geography.

What can cities do to spur implementation? A few case studies provide examples. The Austin Community Design and Development Center provides design and planning assistance to low- and moderate-income households and also partners with another venture to help build and manage ADUs on people's properties.¹⁹ The City of Santa Cruz is often cited as a model for implementation, due to its multi-pronged approach to encouraging ADU construction via an ADU manual, architectural prototypes, loan fund, fee waivers, and community workshops.²⁰ Most recently, a local Habitat for Humanity branch has created the pilot My House My Home program to assist with ADU construction, allowing seniors to age in place.²¹ However, no studies to date have identified which interventions work best to spur production. A deeper look at the success stories in the Pacific Northwest can help other cities devise successful ADU reforms.



ADU in Portland, photo credit: Susan Moray's ADU, <http://www.accessorydwellings.org>.

STORIES OF SUCCESS: PORTLAND, SEATTLE, AND VANCOUVER

As cities around the country try to ramp up ADU production, many look to the three large cities considered North American ADU leaders: Portland, Seattle, and Vancouver. The three share a regional ecological context (often called “Cascadia”) and hot housing markets: in all three cities, housing prices have increased in recent decades, particularly the past five years (Figure 1). As described next, interviews with local experts helped identify key factors behind the success in each city. For a description of ADU regulations in each city, please see Appendix A.

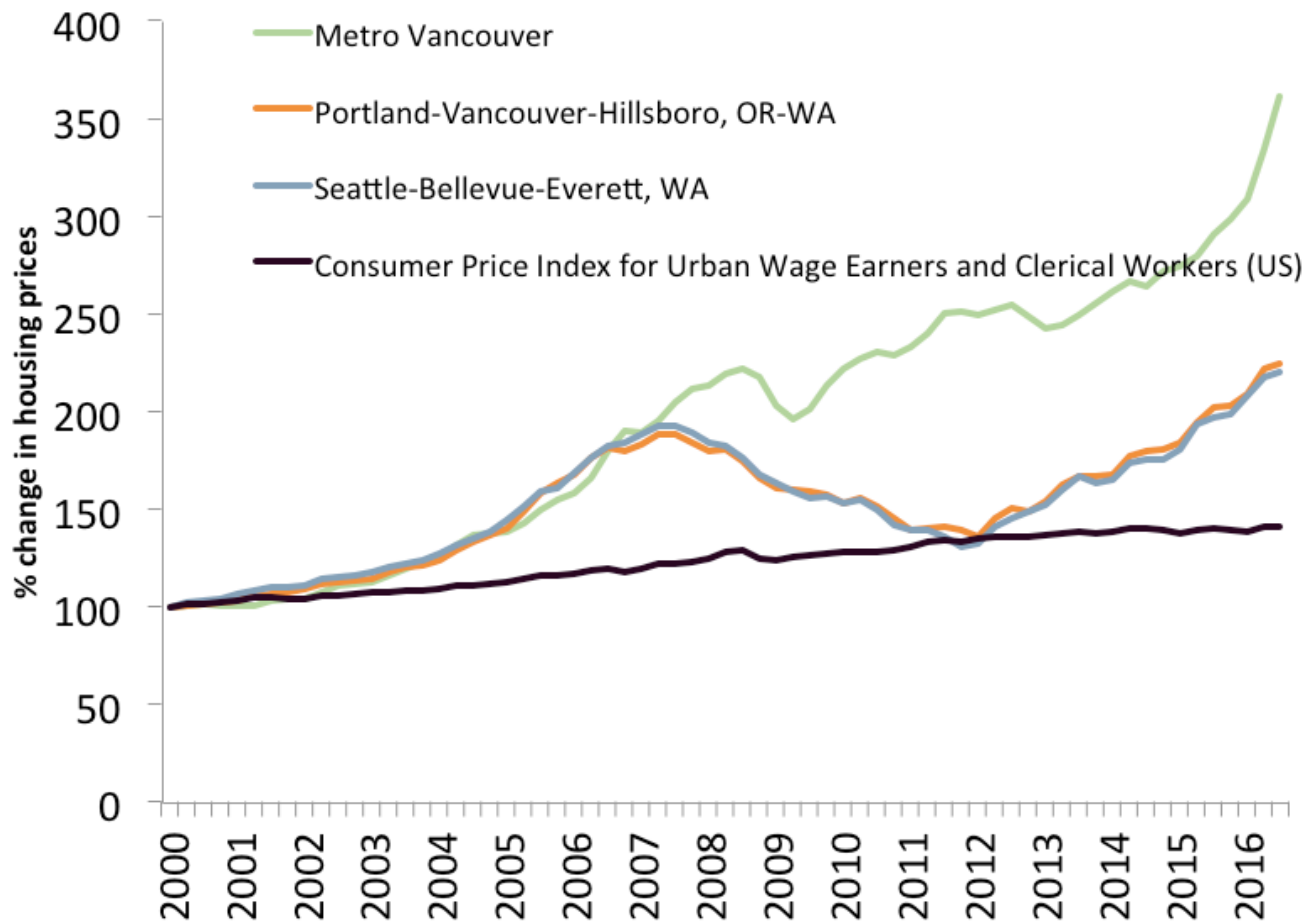


Figure 1. Percent Change in Housing Prices (2000=100).

Sources: House Price Index, Federal Housing Finance Authority (Seattle and Portland); House Price Index, Teranet and National Bank of Canada (Vancouver); Consumer Price Index, US Bureau of Labor Statistics.

PORTLAND



ADU in Portland, photo credit: Kristy Lakin's ADU, <http://www.accessorydwellings.org>.

In the U.S., Portland, Oregon stands out for its success in enabling ADU construction. The city has seen a boom in ADU building in recent years: almost 2,000 ADU permits have been issued since 2010 (Figure 2).²²

Portland's success can be attributed to a combination of regulatory, financial, and social factors:

- **Regulatory:** Portland stands out as one of the most progressive cities in the U.S. in terms of having permissive ADU regulations. The city has no owner occupancy requirement, no design review, a by-right process, and fee waivers.
- **Financial:** in 2010 the city waived one time System Development Charges (SDC) fees based on the new or increased use of a property (impact fees for parks, sewers, water, and streets that average 7% of the total cost of a new home)—a critical step to paving the way to more ADU production.²³
- **Social:** in 2008 and 2009, green building advocates joined forces with ADU advocates to host bike tours and additional educational events. This educational push by the two different constituencies has gone a long way in increasing awareness and popularity of ADUs.²⁴

The importance of the system development charge waiver from the City of Portland for ADU's cannot be overstated. On my ~\$30k project, SDC's would have amounted to \$10-15k, making the project impossible.
—Portland homeowner

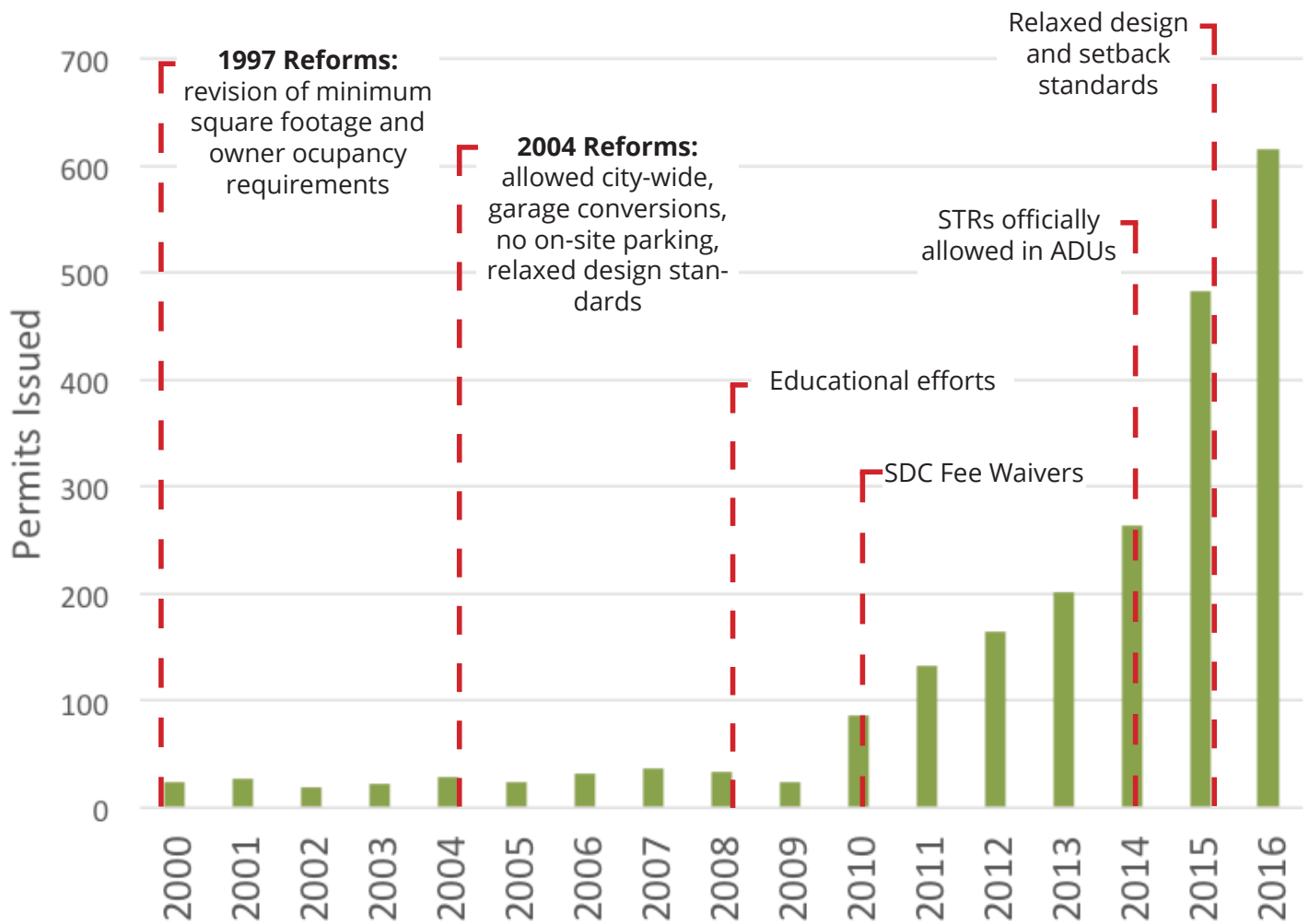


Figure 2. ADU permitting and reforms in Portland.

In addition to its hot housing market, Portland also features a supportive demographic in its aging population: Portland ADUs may be particularly well suited to serve older persons since they are disproportionately owned by 55-64 year olds.²⁵

Portland advocates continue to push for more reforms. Advocates are currently working to bring back a loan product called 80/20 loans that had been available before the mortgage crisis. These loans made it possible to take out a second mortgage based on the improvement value of the new ADU. Another idea in the works is to develop a financing program similar to the property-assessed clean energy (PACE) model, which allows governments to finance the up-front cost of energy improvements, subject to repayment by the property owners.

SEATTLE

Likewise, Seattle has experienced a growth spurt in ADU permitting and construction (Figure 3). However, this is perhaps due less to zoning reforms than to a hot housing market and an ongoing public discussion about potential policy reforms.

Seattle has allowed attached ADUs since the mid-1990s and detached ADUs (DADUs) since 2006 (Figure 3). From 2006 to 2009 a pilot program allowed DADUs to be constructed in specific areas. It went very well, leading the city to extend the program across Seattle in 2010. Until 2014, production was consistent but slow, but as the city began to study options to increase production, permit activity increased. After the city released this study and prompted further public discussion, even bolder changes were proposed, including removing parking requirements, changing owner occupancy requirements, and allowing both attached and detached ADUs.²⁶



Seattle ADU, photo credit: City of Seattle.

To date, most ADU applications have come from wealthier homeowners, due in part to the escalating cost of construction (as much as \$250-300 per square foot). Still, city staff argue that because even new ADUs typically rent for less than conventional housing units, they provide a relatively affordable option in Seattle's expensive neighborhoods.

Jumpstarting the Market for ADUs

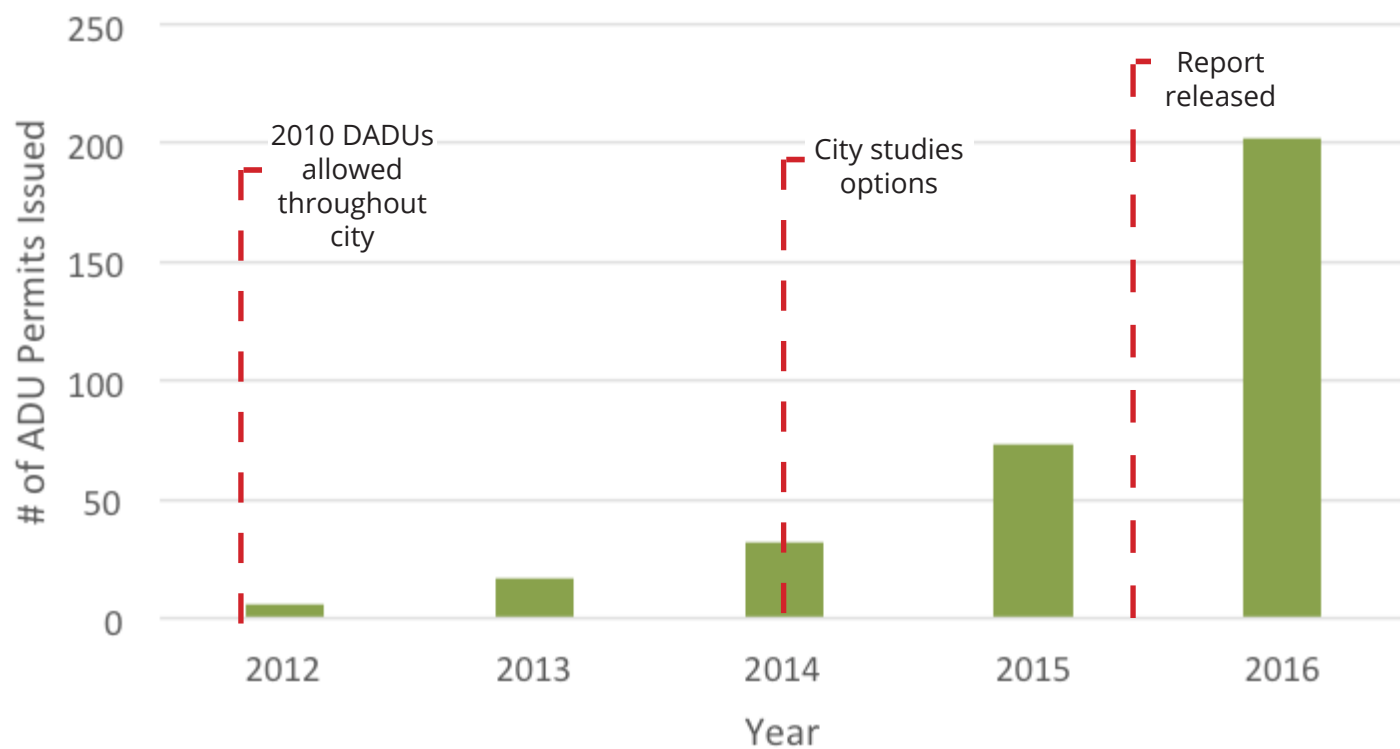


Figure 3. ADU permitting and reforms in Seattle.



Seattle ADUs, photo credit: City of Seattle.

VANCOUVER

In Vancouver, the context for ADU construction was set by a decades-long battle over secondary suites. Secondary suites are basement or ground-floor apartments in single-family houses. Originally encouraged during World War II to alleviate housing shortages, secondary suites, many of which were not built to code, were subsequently considered a nuisance and made illegal; for three decades, the Council repeatedly passed legislation to improve enforcement. In the 1980s, Vancouver finally made it legal to house secondary suites in half of the city's single-family zones, and in 2004, permitted secondary suites citywide. A 2009 study found that there were at least 25,000 suites in Vancouver, most providing relatively affordable housing within less expensive homes.²⁷ Although the City has attempted to create a path to legalize secondary suites, the majority (with the exception of recently constructed units) remain illegal. Legal secondary suites are now often included in new single-family homes: between 2010 and 2015, 1,937 of the single-family homes built had secondary suites.²⁸



Secondary suite in Vancouver, photo credit: Karen Chapple.

In the context of a hot housing market and a lack of vacant land, a new movement also began supporting new legislation to build laneway houses, or small detached houses built on single family lots facing the alley (or the “lane” in Canadian parlance). Vancouver’s urban form—with its grid layout, alleys intersecting many blocks, and deep residential lots (typically 33’ x 122’)—have made laneway dwellings possible. Support also came from the 2006 Vancouver Eco-Density Initiative, a city-led push to reduce greenhouse gas emissions, reuse infrastructure, and foster new green systems through more dense land use. The Council adopted laneway house regulations for the two largest single-family home districts in 2010, and then passed amendments allowing the dwellings citywide in 2013 (Figure 4). This last set of reforms permitted extra floor area (up to 940 square feet), eliminated the garage requirement (replacing it with an external parking pad), and allowed ministerial approval. There is no owner occupancy requirement for Vancouver’s laneway houses. Notably, institutions like Vancity, a local financial co-operative, provide loan products that are appropriate for laneway dwellings, for instance by allowing homeowners to count rental revenue as part of their income.

Jumpstarting the Market for ADUs

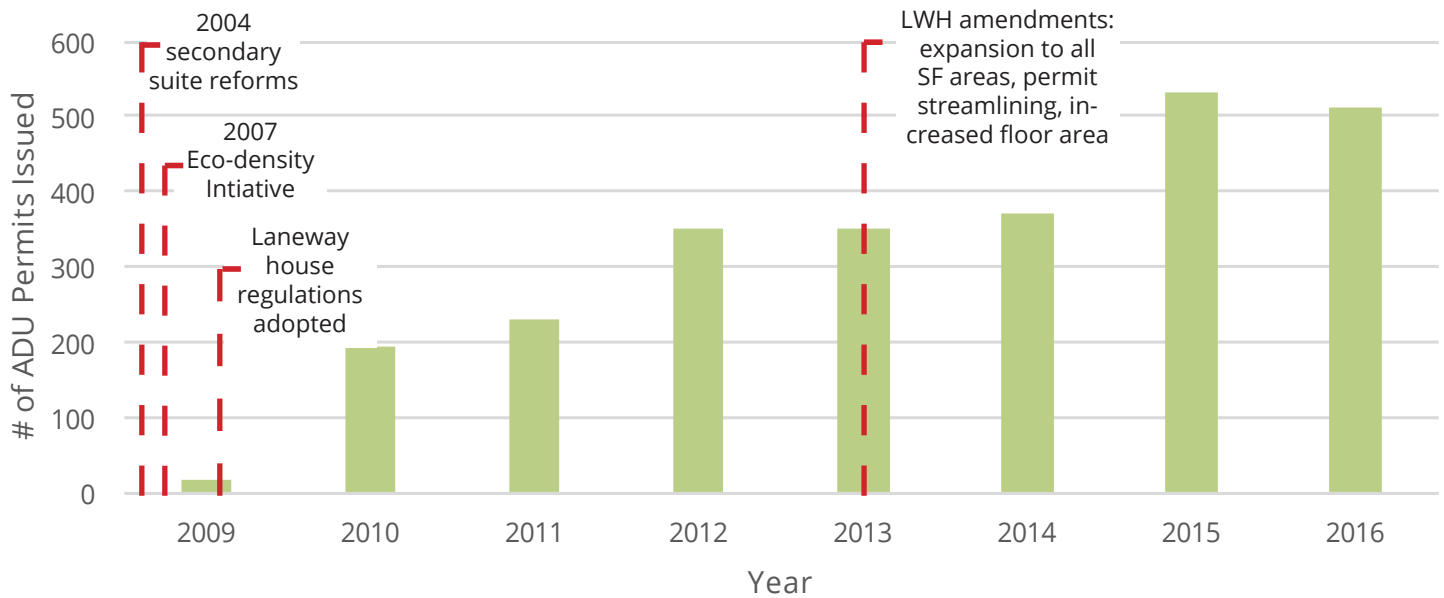


Figure 4. ADU (laneway housing) permitting and reforms in Vancouver.

Vancouver's design context—the lanes and walkability of the city—as well as its high housing prices clearly contribute to the spurt in ADU construction. However, another key to its success has been the proactive and ongoing efforts by the city to provide technical assistance to homeowners and to amend ordinances to make it easier for homeowners to build. Careful design guidelines ensure that the new laneway houses will not intrude on the neighbors: decks and balconies are oriented to the lane, the upper floor has just 60% of the floor area of the main floor, there is a 16' separation from the main house, and a 3' landscaped setback at the lane. At present, there is more demand than the city can accommodate, and permitting is considerably backlogged.



Laneway house in Vancouver, photo credit: Karen Chapple.

THE ROLE OF ADU REFORM

These three cases illustrate how ADU reform in a hot housing market can allow this dwelling type to play a major role in a city's mix of housing options. In Portland, Seattle, and Vancouver, ADUs accounted for only 3.0%, 0.8%, and 0.6%, respectively, of issued housing permits in 2009. In 2015, following key reforms in all three cities, this share had risen to 10.9%, 2.1%, and 6.3%, respectively.²⁹

Similar cities that have only recently enacted zoning reforms demonstrate slower progress. Like the Cascadia cities reviewed in this report, both Salt Lake City, Utah and Austin, Texas have hot housing markets.³⁰ Yet, in Salt Lake City, only one ADU had been permitted in the city since September 2012 when the City Council adopted an ordinance permitting ADUs as of September 2015. The city is currently considering regulatory changes to requirements related to location, permit limit, building height, maximum square footage, lot area, and parking to jumpstart the market.^{31, 32}

In Austin, the number of building permits issued was sluggish for many years, with practically no ADU permits issued until 2007, when the number of permits jumped to 32. In November 2015, the City Council approved a series of reforms that accelerated the number of permits to a projected 387 in 2017. It is important to note that there are at least a couple of additional factors that may contribute to this increase in permits: a) Austin is not landlocked—its city limits are still expanding outward, and b) Austin also has some very large infill tracts inside its city limits with new home building, including ADUs.

SURVEY METHODOLOGY

This study surveyed homeowners in Portland, Seattle, and Vancouver who had built ADUs (or recently purchased a property with a new ADU). After obtaining a list of addresses in each city that had received a permit to build an ADU in the recent past, we sent postcards inviting homeowners to respond to our online survey instrument to a random sample of addresses. We sent three rounds of postcards to each home (for more details, see Appendix B). Of a total of 1,837 addresses contacted, we obtained 414 responses, for a 23% response rate, including an estimated 37% in Seattle, 26% in Portland, and 11% in Vancouver.³³ Of those, 71% completed the full survey.³⁴

The sampling methodology created some bias. Most importantly, our sample only includes those who have successfully navigated the ADU construction process, from design to permitting to construction and occupancy. Thus, we were not able to obtain the views of those who had tried to build an ADU but failed. As a result, the report findings likely underreport the extent of the barriers homeowners face. In addition, there was likely some response bias as the homeowners most interested in responding to the survey were those with either a positive or negative experience. Finally, because we sent the postcard to the main address, rather than the ADU address, we may have inadvertently undersampled homeowner respondents who now live in the ADU.

ADUS IN THE SURVEY: WHAT DO THEY LOOK LIKE, HOW WERE THEY BUILT, AND HOW ARE THEY USED?

In this section, we report some of the basic characteristics of the ADUs from the three cities and how their owners use them. Given that we only surveyed properties that had been granted ADU permits, most (77%) of our survey respondents reported having completed their ADUs, while 20% still had an ADU under construction, and the remainder had not yet begun construction. The ADU development and construction process was fresh in the minds of most of our respondents, since 87% had completed their project within the last five years and fully 27% had completed or were planning to complete theirs in 2017. (See Figure B1 in the Appendix B for the full breakdown by year completed.)

Physical characteristics

Most (67 percent) of the ADUs in our sample are detached from the main building on the property (Table 1). We believe this reflects the greater propensity for homeowners with detached ADUs to seek construction permits, given that their ADUs are more likely to attract attention from code enforcement. Among detached ADUs, by far the most common type is a freestanding cottage (56%), while most of the rest are freestanding garages (25%) or converted garages (18%). Among attached ADUs, by far the most common configuration is a converted basement (65%), perhaps because it tends to be comparatively inexpensive to execute.

ADU Type	Share
Detached	67%
Stand-alone detached unit	56%
Apartment above or beside a new freestanding garage	18%
Freestanding garage converted to an apartment	18%
Apartment above or beside an existing freestanding garage	7%
Other	33%
Attached	65%
Part or all of basement converted to an apartment	12%
Attached garage converted to an apartment	11%
Attached addition to house	9%
Rooms inside main part of house converted to an apartment	4%
Other	
Total	100%

Table 1. ADU types among survey respondents (n = 265)

Permit design restrictions did not allow me to add 200 additional square feet with additional garage space below despite having lot size and total developable square foot allowance on property - this would have helped the economics tremendously.
—Vancouver homeowner

I think laneway houses should only be considered where there is good public transit. My neighbourhood has that and so we don't have as many two and three car households.
—Vancouver homeowner

As is typical for ADUs in general, most of the units in our sample are quite small; the majority of the ADUs we sampled were one bedrooms (52%) and most of the rest efficiency units (29%). Only 19% have two or more bedrooms. Very few of the 244 respondents, 5%, reported having more than one bathroom. While units in the sample ranged from as small as 220 to as large as 1,575 square feet, for the most part they are clustered between those extremes, with an average reported size of 631 square feet and a standard deviation of 237 square feet. Almost all, or 97%, of the respondents reported that their units adhered to the full definition of an ADU by including kitchens.

Most ADUs in the sample include at least some off-street parking spaces: 24% have one, 34% have two, and 17% have three or more. Only 12% of ADUs report including no off-street parking. Given the small sizes (detailed below) of ADU occupant households, these results suggest that it is unlikely that the recent wave of ADU construction in the three cities is materially contributing to on-street parking congestion.

Cost characteristics

The average ADU in our sample cost its owner approximately \$156,000 to build, albeit with a considerable standard deviation of approximately \$120,000.³⁵ This total cost figure varies considerably by city, with almost double the cost per square foot in Vancouver as in Portland, and Seattle in-between (Figure 5). These costs are comparable to the square foot costs for multifamily construction.³⁶ However, it should be noted that ADU costs do not generally include land costs, owner profit, or underground parking structures. They also have much lower carrying costs because the duration of construction is so much shorter.

Construction labor (33%) and materials (34%), which vary little by city, are the two biggest cost components of the average ADU project (Table 2), shares that are not terribly dissimilar from commercial-scale real estate developments. Architecture and engineering are a little on the high side at about 8%, though this is not surprising given that ADUs are small projects. City permits account for about 8%, and utility connections about 5% (slightly less in Vancouver). Thirteen percent of costs fall into the “other” category, likely due to variations in how respondents interpreted the various categories. On the whole, these figures suggest that the opportunity for cities to reduce costs is probably quite limited beyond further relaxing land use restrictions that inhibit certain efficient types of construction, such as taller ADUs. Permit and utility connection waivers might help on the margins, but according to our figures would not yield a radical reduction in costs in the average case.

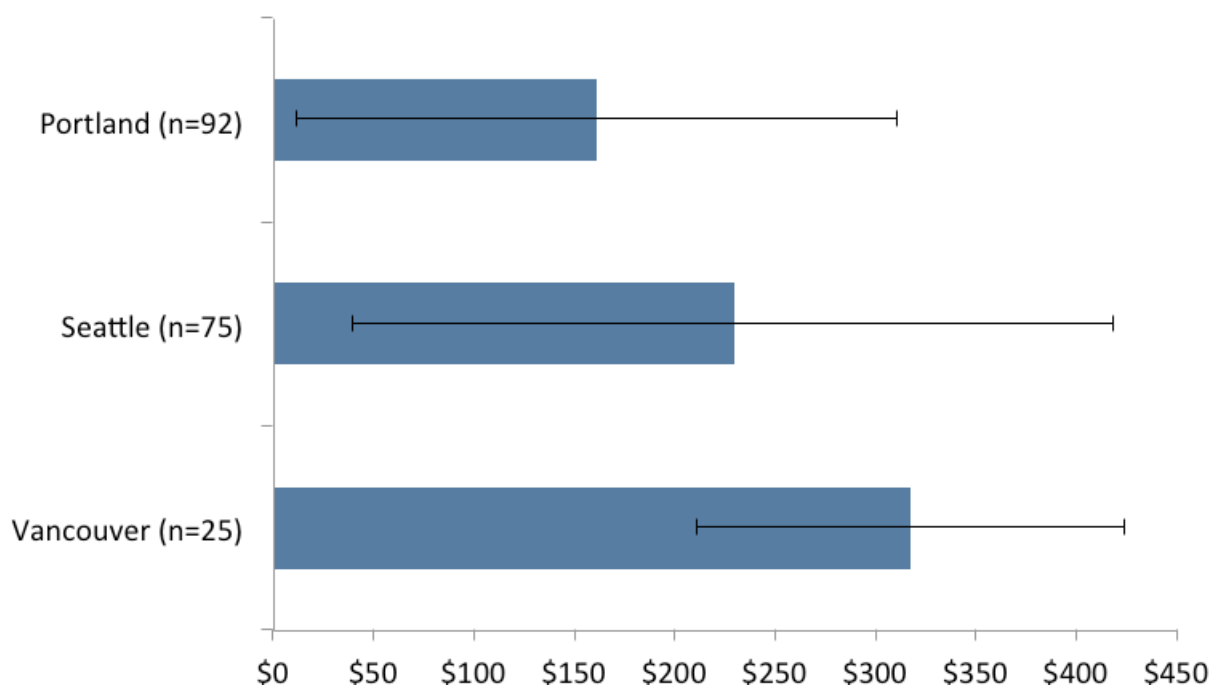


Figure 5. Reported Average ADU Project Cost Per Square Foot.
Note: error bars indicate one standard deviation above and below mean.

Development team composition

Respondents (n=203) reported a variety of project delivery mechanisms to get their ADUs constructed. A design-build contractor was used in 25% of cases, while a traditional architect-contractor team was more common (40%). In 16% of cases, only a contractor (not doing design work) was involved in the project—presumably stock plans were used in these circumstances. These results suggest that homeowners are using a variety of teams to meet their goals, which could include simplicity (design-build), thoroughness (architect-contractor), and desire to economize on design costs (contractor only), depending on homeowners' individual preferences.

This ADU was the first one for the builder so it was a learning process for all of us in various stages of ADU journey. (builder, site contractor, main home owners, and myself (a family member living in ADU). —Seattle homeowner

Current or intended use of the ADU

A majority (51%) of our respondents reported that their ADUs are used as a current or intended primary residence, with a further 9% reporting they are used as extra space for main house residents (Figure 6). Thus 60% of ADUs are or will be used for the purposes of permanent housing, as compared to 12% for short term rentals. Several respondents commented that the planned use of the ADU for rental income made it possible for them to purchase the entire property. Our data therefore do not support the argument, sometimes brought up during public debates, that increased ADU production will not contribute to long-term housing for local residents because they will mostly be used for tourist rentals.

"The cost of housing in Vancouver is astronomical. Most of the people that I know who have built laneway houses have done so to allow family members to have a place to live in the neighbourhood where they grew up." —Vancouver homeowner

Cost component share	Average share of project budget
Construction labor	33%
Construction materials	34%
Architecture & engineering	8%
City permits	8%
Utility connections	5%
All others	13%
Total	100%

Table 2. Components of Total ADU Project Cost (n=171)
Note: Actual total of these reported components differs slightly from 100% due to rounding.

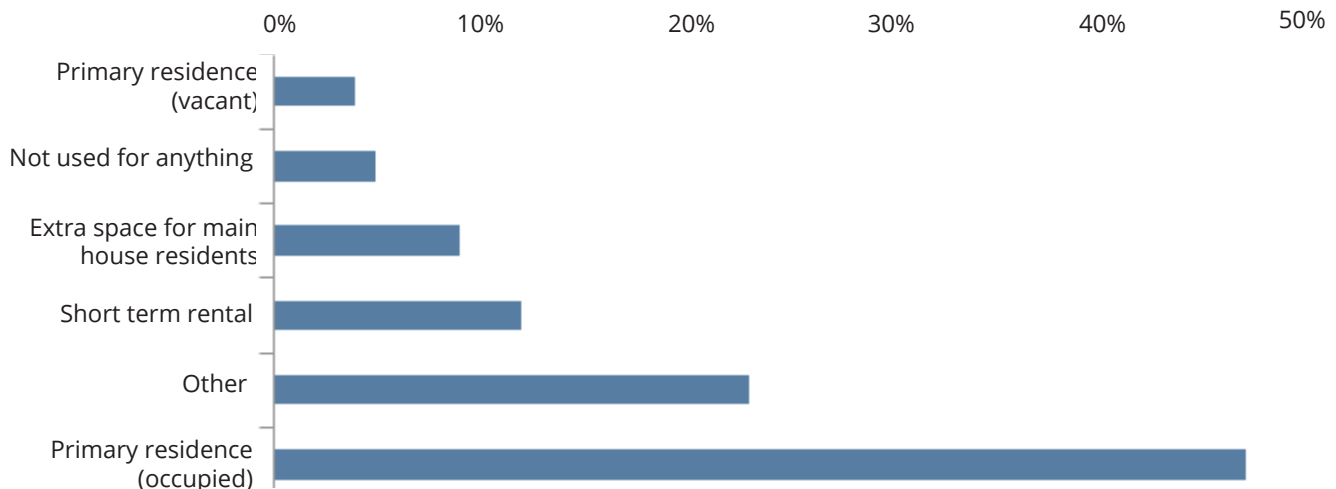
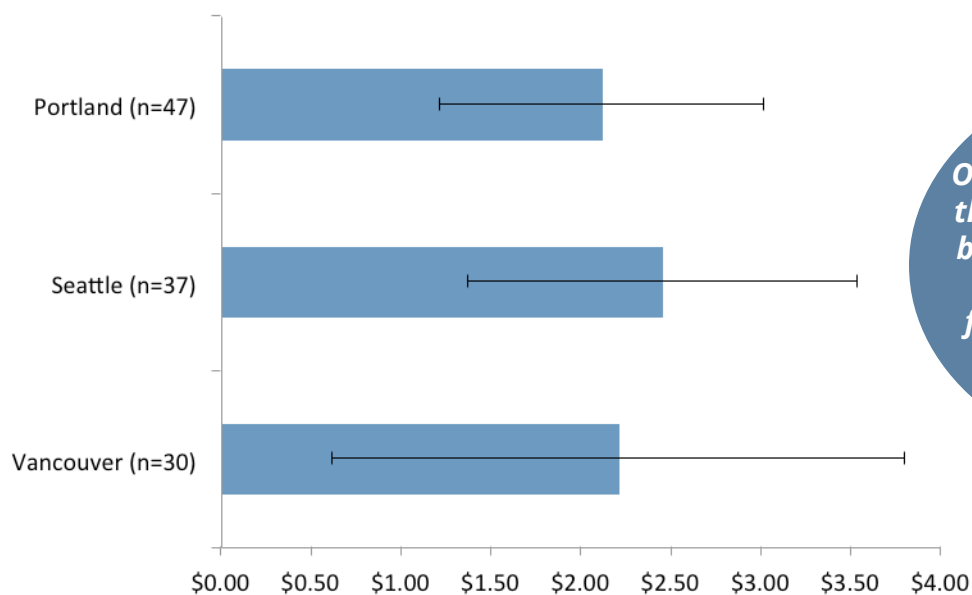


Figure 6. Current use of ADU (n=255).

Rental characteristics

The average ADU in our survey that was rented to a tenant garnered \$1,298 in monthly rent, with a considerable standard deviation of \$632. Surprisingly, the per-square foot rents do not differ significantly across the three cities (Figure 7). As is well-known from previous studies of ADUs, most ADU occupant households are small, consisting of either one person (57%) or two people (36%). Only 7% of cases have a different household composition.



Overall we are very happy that the city of Seattle allows ADUs both for financial reasons and for the fact that an elderly family member is able to live nearby.
—Seattle homeowner

Figure 7. Average Reported Monthly Rent, \$/square foot (leased ADUs).
Note: error bars indicate one standard deviation above and below mean.

In instances where there is someone living in the ADU, in a plurality of cases (46%) the ADU is rented by someone with an arms'-length relationship to the homeowner. Most of the remainder of cases consist of tenants that either receive or might be expected to receive favorable treatment from the landlord because of their relationship: a friend or family member staying for free (17%) or a friend or family member paying rent (12%).³⁷

The majority of ADUs rent for below market rates whether rented at arm's length or not, and thus may be considered a form of affordable housing. Overall, 58% of homeowners report renting below the market rate, with only about 40% of these ADUs occupied by family or friends.

Homeowners with ADUs rented to tenants reported increasing the rent only once every 24 months or less often (or never) in 30% of cases, while 40% reported increasing rent every 7 to 12 months. Thus, we see that depending on individual circumstances and specific landlords, in a substantial number of cases renting an ADU can be a bargain over time from the tenant's point of view.

We needed a housing option for my mother who is 68 now and in good health. Building an ADU was by far the least expensive option for us to own a dwelling for her. In addition, we've been surprised about the added benefits and flexibility the ADU has added.
—Portland homeowner

CHALLENGES AND OPPORTUNITIES

In this section we report on results from the survey that shed light on challenges and opportunities in ADU development.

Motivation for building ADUs

By far the two most common reasons respondents cited for deciding to build ADUs are extra income from a long-term rental (38%) and creating living space for a household member or helper (28%). Both short-term rentals and the desire for flexible future were cited at 11% apiece.³⁸ All other reasons add up to only 12%. Collectively, these results suggest that homeowners have a variety of motivations and that a substantial minority enter into the ADU development process with the expectation of the use of their ADUs changing over time. This suggests to us that public sector efforts to micromanage the uses in ADUs may be counterproductive for the goal of maximizing production.

The top three factors cited by respondents that led them to “pull the trigger” on initiating an ADU project (206 top three responses drawn from n=86 separate respondents) were, in descending order, easing of land use rules (42%), obtaining enough money to begin (19%), and learning about ADUs through an educational website, event, or tour (15%) (Figure 8). Among those who were asked a follow-up question after citing easing of land use rules as a factor (87 top three responses from n=42 separate respondents), by far the two most consequential were minimum lot size (n=37%) and allowable floor area (n=29%). Notably, it was in Seattle, which has yet to enact significant zoning reforms, that many respondents indicated a need to ease zoning rules.

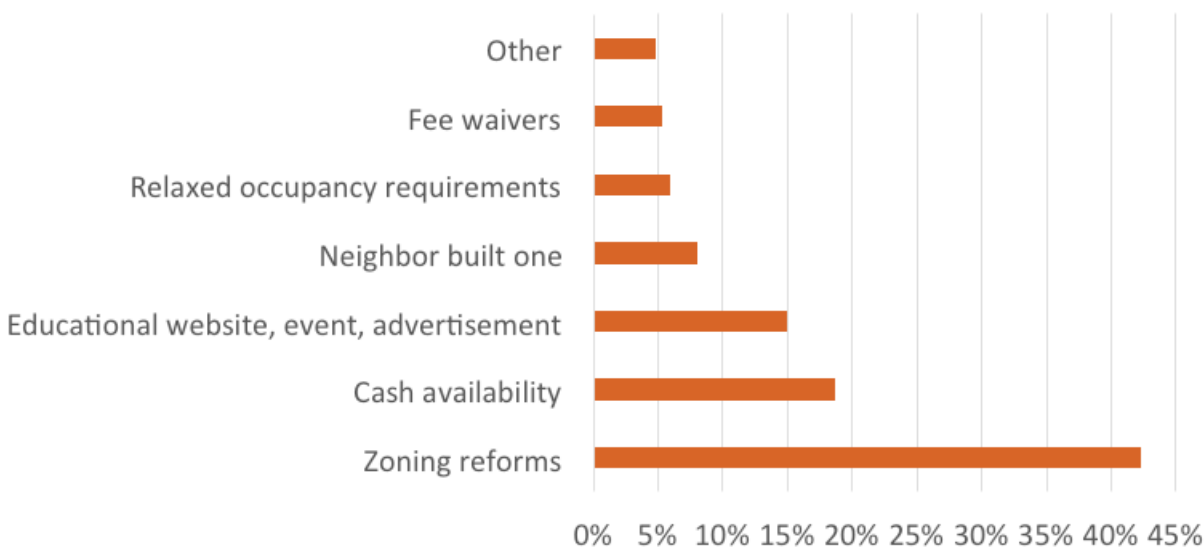


Figure 8. Most important factors leading to the decision to build an ADU.

These results suggest that, as suspected, the easing of some land use restrictions on ADUs in the three cities have done a great deal to motivate ADU production. Further easing could help still more, particularly with respect to minimum lot size and maximum ADU size. At least some of those concerned about obtaining enough money to begin an ADU project could be encouraged through innovative financing products (discussed further below). Finally, the fact that websites, events, and tours promoting ADUs were almost tied for second as a

We invited the neighbors to tour our ADU when finished.
—Seattle homeowner

triggering factor for the ADU “build” decision suggests that these efforts have a high “bang for buck” ratio: they cost relatively little but can have a surprisingly large impact. Indeed, a prominent ADU builder and activist in Portland told us that promotional activities have been instrumental in accelerating ADU production in that city. Something as basic as informing members of the public that ADUs exist and that they are a viable option for many homeowners, it would seem, is surprisingly important.

Biggest challenges faced by homeowners who successfully built an ADU

Of all the mentions of challenges faced by survey respondents in developing their ADU (i.e. those challenges that appeared in the top 3), by far the most common were obtaining a loan (34% of mentions) and paying for the cost of construction (18%). Almost 5% of respondents were turned down for loan finance on their first attempt, though most were able to overcome this problem by turning to another financial institution or product. Though opportunities to reduce cost of construction through public policy may be limited, these results confirm that interventions in the lending market for ADUs may have a significant impact on increasing ADU production.

I LOVE my ADU. All of my neighbors love it, too. It is very cute and fits right into its setting behind our 1916 house. I was the 83 person in Seattle to get the permit to build a Backyard Cottage. The Seattle guide to building a backyard cottage is a very good resource.
—Seattle homeowner

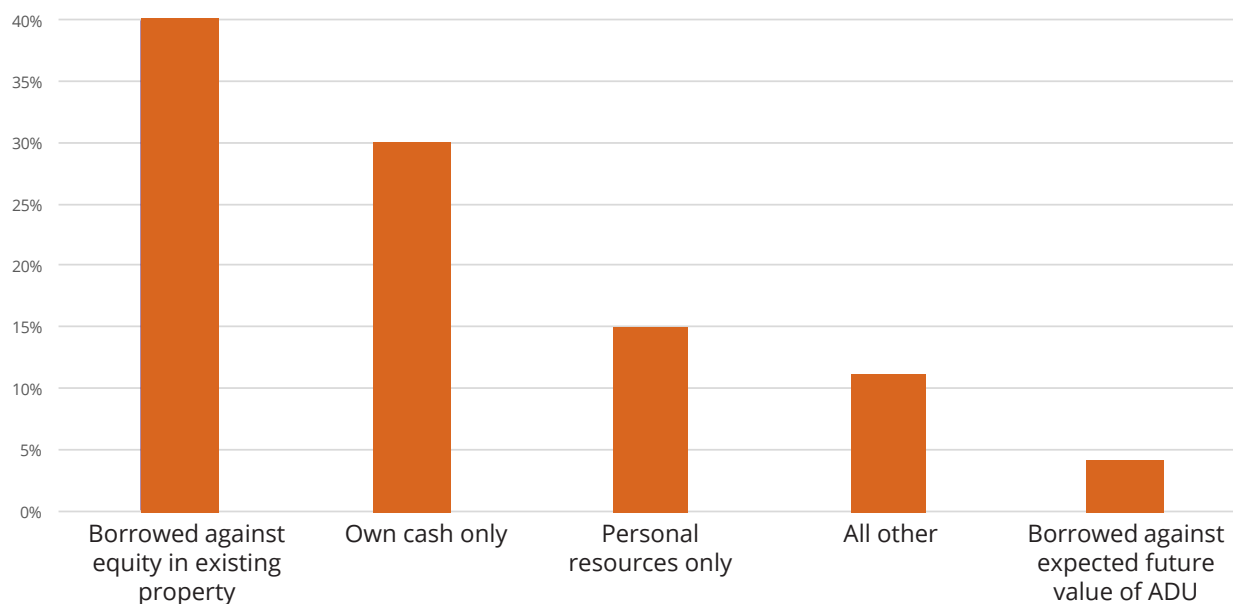


Figure 9. Source of Financing for ADU Development (n=210).

Note: Categories are mutually exclusive. "Borrowed against equity in existing property" and "Borrowed against expected future value of ADU" are sources of financing that in many cases were combined with other sources.

It has been 15 years since we completed our ADU. I am disappointed in how it has affected the appraised value of our property. Appraisers can't find similar properties for comps and they do not consider the added value of the income in valuing the property.
—Portland homeowner

Financing source

To finance their ADU project, 30% of respondents used only their own cash. An additional 15% drew entirely on other personal resources such as credit cards (Figure 9). Among the remainder, 40% of respondents reported borrowing against the existing equity in their property in some way, such as via a Home Equity Line of Credit (HELOC) or a cash-out refinance. A paltry 4% reported borrowing, at least in part, against the future expected value of the unbuilt ADU to help finance its construction.

These results are, to us, a strong indication of a market failure. The low development costs and comparatively high rents obtained by ADUs ought to make it possible, in many cases, for homeowners to borrow against the future value of an unbuilt ADU, but this does not appear to be happening often.

Of the lending on ADU projects that does occur, locally-focused lenders seem to be disproportionately important. Of the 91 respondents who reported getting a loan of some type and who indicated what type of institution made the loan, 60% reported borrowing either from a credit union or a local or regional bank. Only 34% reported receiving a loan from a national bank. This suggests that efforts to encourage or create innovative financing products to ease ADU financing might most productively focus on partnerships with locally-focused lending institutions that already understand the local real estate market in general and ADUs in particular. Indeed, our interviewees suggested that some local and regional lenders, such as Vancity in Vancouver and Umpqua Bank in Portland, have already been instrumental in innovating ADU lending programs and practices.

Financing is critical. With changing bank requirements for income, it seems anybody without a high-paying job is out of the running for an ADU. For example [t]he soon to retire or retired couple with a house almost paid off would not qualify for a refinance.

Neighbors! Many were supportive but a few objected to the city and made up spurious complaints which the city had to come out and inspect, though we were never cited as in violation of anything.
—Seattle homeowner

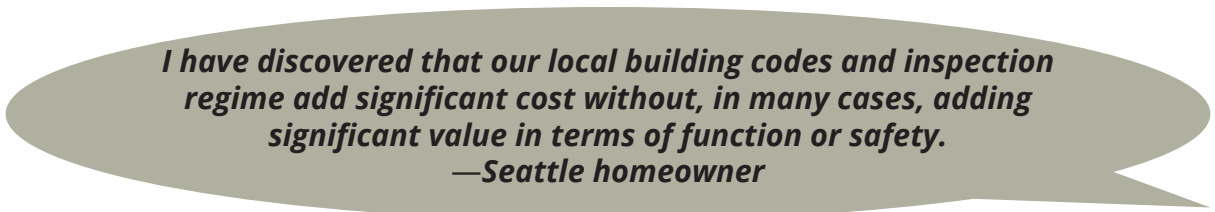
On the whole, I can see the value in work being inspected, but the permitting process isn't something I'd ever hope to go through again. Next time I build a small house it'll be on wheels.
—Seattle homeowner

Working with the City of Portland was a MAJOR pain. First acquiring information, then going through the multitude of steps. Information seemed to change as the project went along. It was SUPER frustrating.
—Portland homeowner

Permit problems and project duration

Only 19% of respondents (n=209) reported being turned down for a permit. By far the largest number of those—almost half—overcame the setback by making design changes. On the other hand, 70% of respondents (n=200) experienced unanticipated events that led to delays and cost increases to the project. The most common issues (n=139 reported issues from 133 separate responses) are issues with the permitting process (36%), poor professional assistance (22%), and existing infrastructural problems (16%). From this we surmise that most homeowners enter into the ADU permitting process with a high probability of ultimate success—with the possible exception of Seattle, where respondents detailed having to overcome a variety of challenges with permitting. However, anything that could make the permitting process more transparent and predictable would likely be helpful. Such efforts could arise either from within local government, or via technical assistance provided by outside entities, such as architectural design and project management services provided at low cost by students under faculty supervision at local universities.

Even with a large majority of respondents reporting delays, ADU projects are still strikingly fast when compared to other types of real estate development. multifamily development projects, for example, routinely take three or more years from conception to opening. The equivalent time span for our respondents for their ADU projects (n=197) was 18 months or less in 83% of cases, and six months or less in just under a quarter. These “lean” schedules are driven by short construction phases, which take less than a year in 83% of cases and less than six months in 45%. Efforts to reduce these time periods might, therefore, achieve comparably little. However, better predictability in the development and permitting process would probably be quite helpful in avoiding delays. After all, delays may not faze a professional developer but are often aggravating and discouraging for everyday homeowners seeking to add an ADU to their properties.



***I have discovered that our local building codes and inspection regime add significant cost without, in many cases, adding significant value in terms of function or safety.
—Seattle homeowner***

Desired resources for aiding ADU development

When asked what resources they wished they had had while developing their ADUs, respondents (n=157) gave a variety of answers. The following responses (aside from “not applicable”) accounted for at least 60% of the total: professionals with ADU knowledge (24%); an easy-to-understand and comprehensive guide through the entire process (20%); better assistance from city government (15%); and better financing options (10%). The first desired resource, professionals with ADU knowledge, ought to begin to resolve as ADU production spreads and increases. Easy-to-understand and comprehensive guides through the entire process would be relatively easy and comparatively cheap for cities to produce, requiring perhaps several thousand dollars. As discussed earlier, intervening in the market for financing ADUs would likely be highly productive, but also would require a great deal of effort and lie at least partly out of cities’ purview. Thus, among these responses, the city-produced guide to the ADU development process stands out as truly “low hanging fruit” for municipalities interested in boosting their ADU production.

CONCLUSION AND POLICY IMPLICATIONS

Despite the push for ADU reforms, prior to this study little was known about the extent to which they succeed at jumpstarting the ADU market. This survey of homeowners describes the unique role that ADUs play in hot housing markets, and how zoning reforms in particular have spurred construction. ADU owners in Portland, Seattle, and Vancouver value their ADUs as small and flexible spaces that can be built relatively quickly. Though built for a variety of purposes, the majority are actually affordable housing.

Three factors are key to the success of ADU implementation. First, in cities that have reformed their zoning regulations (particularly minimum lot size and floor area) production has jumped. Also important are minimizing design review and easing owner occupancy requirements. In general, homeowners appear to greatly value the ability to use an ADU flexibly—an ADU could be rented to a stranger today, used to house an aging parent tomorrow, and rented nightly to out-of-town visitors sometime later. For this reason, local governments need to resist the inevitable pressures to unduly restrict not only how they are built, but how they are used after they are built. If homeowners lack the confidence that a new ADU can be used in the way they see fit at the time they need it, fewer of them will commit the considerable financial and logistical resources to build one.

Second, waiving fees such as permit or utility connection fees can spur homeowners to build—but aside from such waivers it will be difficult to reduce construction costs for ADUs. ADUs are already likely the cheapest way to add housing units to a built-up neighborhood. This is not only because they are small, but also because they use a cheap, efficient form of construction, they can be built quickly, and, of course, because their land costs are zero.

Finally, cities that take steps to educate homeowners (for instance, via ADU manuals and prototype plans), as well as providing technical assistance, will likely see a payoff for relatively minimal cost and effort. A big part of winning hearts and minds in the battle for more ADUs is simply raising awareness. Local governments can play a catalytic role in publicizing the possibility for homeowners. Ideally, civil society groups will then pick up the mantle in promoting ADUs, advocating for better policies, and disseminating information that helps homeowners otherwise intimidated by the permitting, design, and construction processes. Along the way, the dominant narrative about ADUs can shift from their burdens and impacts to their benefits and even cultural cachet. We learned that this is exactly what has occurred in Portland over the past decade.

To date, no city has developed a comprehensive and fully effective approach to assisting homeowners with financing ADUs. As a result, aside from homebuilders, only the most affluent homeowners, who can tap into savings, are building ADUs. The robust growth in ADU construction seen in Portland and Vancouver and, to a lesser extent, Seattle, can accelerate further, reach a wider constituency, and spread to other large cities once new lending practices emerge that allow homeowners to borrow against the future value of the asset they seek to build on their own properties. These innovative financing models stand the best chance of success if local governments collaborate with lending institutions, particularly locally-focused ones such as credit unions, to bring them into being. If and when this “Holy Grail” of lending is achieved, the ADU market will truly be jumpstarted.

NOTES

1. In certain densely-built urban regions, such as Los Angeles, opportunities may exist to incrementally add ADU-like units to residential properties that already include more than one home, such as duplexes or triplexes. However, in the vast majority of the metropolitan areas of the United States, including in the Pacific Northwest cities that we study, most urban territory is zoned for single-family housing only. This means that most opportunities for adding ADUs will come from single-family lots, and that is what we focus on in this study.
2. Jonathan Woetzel, Jan Mischke, Shannon Peloquin, and Daniel Weisfield, "A Tool Kit to Close California's Housing Gap: 3.5 Million Homes by 2025," McKinsey Global Institute, 2016 (October); Jake Wegmann and Karen Chapple, "Hidden Density in Single-Family Neighborhoods: Backyard Cottages as an Equitable Smart Growth Strategy," *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, vol., 7 (2014), 307–329.
3. For a list of ordinances around the country, see <https://accessorydwellings.org/adu-regulations-by-city/>
4. For instance, in the year after Berkeley passed its ADU reforms, it received about a dozen applications for ADUs, up from about 5 per year.
5. Maurizio Antoninetti, 'The Difficult History of Ancillary Units: The Obstacles and Potential Opportunities to Increase the Heterogeneity of Neighborhoods and the Flexibility of Households in the United States', *Journal of Housing For the Elderly*, 22.4 (2008), 348–75 <<https://doi.org/10.1080/02763890802458320>>.
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7. Karen Chapple, Jake Wegmann, Alison Nemirow, and Colin Dentel-Post, "Yes in My Backyard: Mobilizing the Market for Secondary Units," 2012, Center for Community Innovation (UC Berkeley), <http://communityinnovation.berkeley.edu/reports/secondary-units.pdf>.
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10. Jake Wegmann, "Financing Ancillary Apartments on Residential Properties: Challenges and Solutions," August 2015, Institute for Governmental Studies (UC Berkeley), https://igs.berkeley.edu/sites/default/files/2015_housing_research_brief_8-25-15.pdf. Gerald E. Buker, "A Study of Backyard Cottage Policy in Seattle, Washington: Existing Conditions Study, Capacity Analysis, and Survey in Conjunction with Seattle's Department of Planning and Development" (unpublished Master's thesis, University of Washington, 2015) <<http://search.proquest.com/docview/1730399825/abstract/F0F707FF859E4EBAPQ/1>> [accessed 23 September 2016].
11. Martin John Brown and Jordan Palmeri, *Accessory Dwelling Units in Portland, Oregon: Evaluation and Interpretation of a Survey of ADU Owners* (State of Oregon, Department of Environmental Quality, 1 June 2014), pp. 1–47 <<https://accessorydwellings.files.wordpress.com/2014/06/adusurveyinterpret.pdf>> [accessed 17 September 2016].
12. *The Alley Flat Initiative*, Working Paper Series (University of Texas Center of Sustainable Development, July 2008) <<http://251.sustainablesources.com/alleyflat2016demo/af-content/uploads/2016/02/AFI-SOA-2008-report.pdf>>.
13. Martin John Brown and Taylor Watkins, 'Understanding and Appraising Properties with Accessory Dwelling Units', *Appraisal Journal*, 80.4 (2012), 297.

14. Brown and Palmeri, op. cit.
15. Alison Steele, *2014-Innovation-and-Practice-in-House-Design-Research-Grant-3-8-15.pdf*, 2014 <<http://251.sustainablesources.com/alleyflat2016demo/af-content/uploads/2016/02/2014-Innovation-and-Practice-in-House-Design-Research-Grant-3-8-15.pdf>> [accessed 4 November 2016].
16. Canada Mortgage and Housing Corporation, *Accessory Apartments: Characteristics, Issues, Opportunities* (Ottawa, Canada: CMHC, 1990).
17. Canada Mortgage and Housing Corporation, "Research Highlight: Literature Review and Case Studies of Local Jurisdictions that Permit Secondary Suites," (Ottawa, Canada: CMHC, 2015).
18. Ibid.
19. Steele, op. cit.
20. Chapple et al. 2012, op. cit.
21. See <https://www.habitatmontereybay.com/own-a-home> and <http://www.santacruzsentinel.com/article/NE/20160210/NEWS/160219960>
22. Jake Wegmann, and Alison Nemirow, *Secondary units and urban infill: a literature review*, Working Paper (Berkeley, CA: Institute of Urban and Regional Development, 2011).
23. Home Builders Association of Metropolitan Portland, System Development Charges. Accessed April 6, 2017 at <http://hbapdx.org/advocacy/system-development-charges/>
24. Notably, the website <http://www.accessorydwellings.org/>, which provides a central repository of information to navigate the ADU production process, was created and is still maintained by volunteers in Portland.
25. Brown and Palmieri, op. cit.
26. These are under consideration but not yet approved.
27. "The Role of Secondary Suites: Rental Housing Strategy Study 4," December 2009, Social Developing-Housing Policy, Community Services Group, City of Vancouver, <http://vancouver.ca/docs/policy/housing-secondary-suites.pdf>.
28. Figures provided by Heather Burpee, City of Vancouver.
29. Portland ADU permit figures from "The Ascent of ADUs in Portland," February 27, 2017, accessorydwellings.org (URL <https://accessorydwellings.org/2017/02/27/the-ascension-of-adus-in-portland/>). Seattle and Vancouver ADU permit figures obtained from staff from each city. Note that Vancouver figures are likely an undercount as they only include laneway houses and infill homes (ADU-like units allowed on certain properties as part of a historic preservation strategy), and do not include secondary suites, for which annual issued permits totals are not maintained by the city. Overall Portland and Seattle building permit figures are from the Building Permits Survey of the US Census. Vancouver overall building permit figures are from BC (British Columbia) Stats.
30. Between 2011 and 2017, housing prices have increased by 42% in Salt Lake City, from \$193,758 to \$259,908, while in Austin, prices have increased by 56%, from \$198,950 to \$310,850 (in 2017 dollars), compared to a nationwide average increase of 25%. Sources: ZHVI All Homes (SFR, Condo, Co-op) Time Series (\$), <https://www.zillow.com/research/data/#median-home-value>
31. "Accessory Dwelling Units Amendment." Salt Lake City Planning Division. <http://www.slcgov.com/sites/default/files/documents/planning/2016/ADU%20Initiative.pdf>
32. Additionally, zoning changes will be necessary because ADUs are actually prohibited in most areas of the city. See "Growing SLC: A Five Year Housing Plan: 2017-2021." Salt Lake City Housing and Neighborhood Development. Draft February 2017. http://www.slcdocs.com/hand/Housing_plan_short.pdf
33. About 35% of respondents neglected to enter the survey ID that allowed us to identify their home city, making it challenging to determine response rate by city. We were not able to determine the distribution of these respondents, so in estimating the response rate, we assumed that the distribution of these respondents with unknown geographies was the same as those with known geographies.

- 34. Most (80%) of the incomplete surveys came from respondents with unknown geographies.
- 35. Because the economies of the US and Canada are so similar and intertwined, and because their respective currencies have at times been at parity, in this report we simply lump US and Canadian dollar figures together for simplicity and ease of comparison. See Ryan Macdonald, "Do Relative Canada/U.S. (United States) Prices Equate to the Exchange Rate?," January 2012, Statistics Canada, Economic Insights No. 003, Catalogue no. 11-626-X.
- 36. Source: RS Means, <http://learn.rsmeans.com/rsmeans/models>
- 37. Although the survey did not ask about situations in which the main house is rented and the ADU is occupied by the landlord, several respondents volunteered that this was their situation.
- 38. Several respondents noted in the comments that they rent via Airbnb, but did not select the short-term rental response option because they did not realize it was the same thing. Thus, the 12% figure may be a slight underestimate.

APPENDIX A: ADU REGULATIONS

ADU Criteria across the Pacific Northwest

ADU Criteria	Portland	Seattle	Vancouver
Detached allowed?	Y	Y	Y
Attached allowed?	Y	Y	N/A
Both Allowed? (2 per lot?)	N	N	N
Minimum lot size (Sq. ft.) - Interior	N/A	Y	Y
Minimum lot size (Sq. ft.) - Corner	N/A	N/A	N/A
Setbacks	Y	Y	Y
Number parking spots required	N	1	N/A
Tandem parking allowed?	N/A	Y	N/A
Covered parking?	N/A	N/A	N/A
Parking waiver?	N/A	Y	N/A
Owner-occupancy requirement	N/A	Y	N/A
Maximum size Sq. ft. (detached)	Y	Y	Y
Maximum size Sq. ft. (attached)	Y	Y	N/A
Separate metering requirement?	N	N	N
Height limit	Y	Y	Y

Sources: Bureau of Development Services Program Guide: Accessory Dwelling Units; Portland Title 33, Planning and Zoning Chapter 33.205 Accessory Dwelling Units; Seattle Government Municipal Code; Removing Barriers to Backyard Cottages; Accessory Dwelling Unit (Mother-in-Law Apartment); City of Vancouver Land Use and Development Policies and Guidelines: Laneway House (LWH) Guidelines; City of Vancouver Bylaws: Zoning Section 2 Definitions; City of Vancouver Bylaws: Zoning Section 10 General Regulations; City of Vancouver Bylaws: Zoning Section II Additional Regulations.

APPENDIX B: SURVEY METHODOLOGY

Compiling addresses of ADUs

Portland

Portland did not have a complete list of addresses with ADUs. However, there is an online database of building permits issued as far back as 2000. This provided a substantial share of the city's total permitted ADUs as they were only legalized a few years earlier. (Our interviewees told us that permit issuances were far lower in the earliest years.) This database allowed us to select building permits issued for ADUs since 2000. We found 1,569 addresses with ADU permits.

Seattle

Seattle also did not have a complete list of addresses with ADUs. However, the city released a report about backyard cottages that has addresses of homes with backyard cottages that received permits from 2011 to 2014. In addition, the city has a similar online database to Portland's from which we were able to get building permits issued for any type of ADU from 2012 to November 2016. We put these samples together and removed the duplicate addresses. This led us to have a total sample frame of 426 addresses with ADUs from Seattle.

Vancouver

City staff from Vancouver sent us a list of all ADUs permitted between 2011 and 2015, separating them into a list of addresses for secondary suites (attached ADUs) and a list of addresses for laneway homes (detached ADUs). There were 1,371 laneway suites and 2,573 secondary suites. In Vancouver, laneway homes are given a separate address from the main house, rather than being called "unit b" or something similar, as was the case for ADUs in Portland and Seattle. We were able, however, to find the main house addresses for these secondary suites. Additionally, in Vancouver it is possible to have one of each type of ADU, laneway house and secondary suite, on the same residential property, so some addresses have both a laneway home and secondary suite. Thus, we created a list of 423 addresses with both a laneway home and secondary suite, 2,158 homes with only a secondary suite and 922 homes with only a laneway suite.

Creating samples

After compiling the addresses for the cities, we had to create samples. Wanting to get a consistent number of results among the cities, we decided to send equally sized samples to each city. Our budget allowed us to send postcards to more addresses than we had for Seattle, so we decided to send postcards to every address we had for Seattle — 426 — and to then send an equal number of postcards to Vancouver and Portland. This allowed us to send 713 postcards to each of those two cities. Given the unique conditions of the data for each city, we were able to stratify our samples somewhat. Portland offered an interesting split of permitting in early 2010 when the city decided to waive many of the development fees. Thus, we took two samples of addresses: i) up to and including March 2010 and ii) those from April 2010 and later. There were only 344 total addresses from the earlier time period, which is less than the 713 postcards we could send, so we sent postcards to all of those addresses and sent slightly more, 369, to the addresses that got permits in April 2010 and later. Finally, we did a similar split for Vancouver, sending about a third of the 713 postcards each to the three groups of addresses we made. So, we sent 238 postcards to addresses with only a secondary suite, 238 postcards to addresses with only a laneway house, and 237 postcards to addresses with both.

For the sake of simplicity in keeping track of these addresses, we issued each address a four-digit ID number with the first digit corresponding to the city. Survey respondents were asked to enter their code when taking the survey. This allowed us to remove the addresses whose occupants had already responded to the online survey from the second and third mailings of postcards.

Sending the postcards

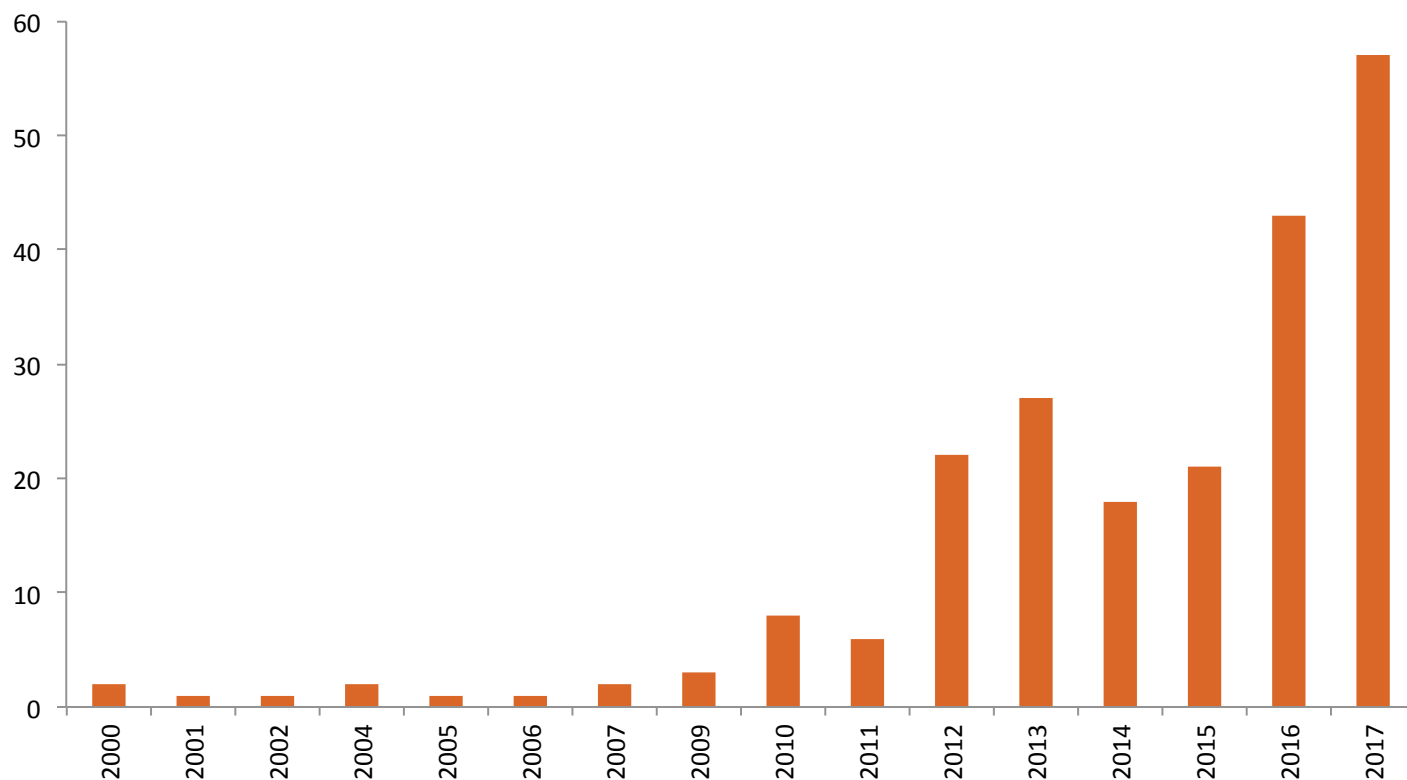
With the samples in place, we sent out the postcards in three rounds: from December 2016 to January 2017 in Portland and Seattle, and January to February 2017 in Vancouver. Postcards were addressed to the ADU Homeowner.

Returned postcards

Approximately 8% (148) of the postcards were undeliverable. These were evenly distributed between Portland and Seattle. Just one postcard was returned from Vancouver, but this low total may be due to policies that limit returns across international borders. In Seattle, 1/3 were returned and most of the remainder because there was “no such number.” In Portland, 20% were vacant, almost 30% were “no such number,” and the remainder were “undeliverable as addressed.” These delivery problems may have occurred at addresses where the permitted ADUs had never actually been built. To calculate the response rate, we subtracted the returned postcards from the denominator.

Responses by year completed

Figure B1. Number of Responses by Year ADU Completed, All Three Cities (n=215).



Accessory dwelling units in Portland, Oregon: evaluation and interpretation of a survey of ADU owners



State of Oregon
Department of
Environmental
Quality

**Environmental Solutions
Materials Management
Jordan Palmeri**

811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-5696
(800) 452-4011
Fax: (503) 229-6762

Contact: Jordan Palmeri

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Accessory dwelling units in Portland, Oregon: evaluation and interpretation of a survey of ADU owners

By

Martin J. Brown

<http://martinjohnbrown.net>

mjb2000@gmail.com

With

Jordan Palmeri

Oregon Department of Environmental Quality

Green Building Program

Palmeri.jordan@deq.state.or.us

<http://www.deq.state.or.us/lq/sw/wasteprevention/greenbuilding.htm>

Summary

We interpreted the results of a survey of accessory dwelling unit (ADU) owners in Portland, Oregon. By comparing survey responses to Census summaries and other data, we made an initial investigation into some common claims and questions about the effects of ADUs. This analysis finds that in Portland:

1. ADUs do provide housing. At any one time about 80% of ADUs are in use as long-term residences. The remaining 20% have alternative uses, but can be converted to housing with no further construction or permitting. Changing uses is part of the attraction for owners.
2. Most properties with ADUs (64%) are occupied by their owner, even though Portland has no requirement they do so.
3. ADUs seem to be at least as attractive to renters as apartments in multifamily buildings, and may be preferred by them.
4. ADUs are likely to have a low environmental impact compared to other dwellings. Their median area per resident is 44% lower than newly constructed single family residences, and some ADUs have a notable number of above-code green features.
5. ADUs are associated with an average of 0.93 cars per dwelling, lower than the Portland average of 1.31 for all new rentals. Of those 0.93, an average of 0.46 are parked on the street. Since ADUs are also extremely rare, ADUs have had negligible impact on parking conditions citywide. ADUs may be as effective in reducing vehicles owned per household as transit-oriented developments.
6. ADUs do serve older persons, both as places to live and assets to own, but not to a greater extent than other forms of housing. However, many Portland ADUs are owned by 55-64 year-olds, who will be 65+ in a decade. The beneficial effect of ADUs for older persons will likely be larger then.
7. ADUs support the community economically through one-time construction costs, averaging \$78,760 per unit, and ongoing property taxes, estimated to average \$1134/yr (using recent tax levy rates).
8. The claim that ADUs provide affordable rental housing is a complex one to evaluate. Housing affordability has been defined in many ways, and ADUs have unusual properties as rentals. 18% of Portland ADUs are occupied for free or extremely low cost. This unregulated, “volunteer” affordable housing has been created with little subsidy or intervention from the government. Meanwhile, about 80% of ADUs rent for market rates, or a slight premium, compared to apartments of similar size and location.
9. Financial gain through rental income is the most common motivation for the homeowner-developers who create ADUs, followed by housing for a family member or helper. Construction costs, design constraints and financing are the most common barriers to ADU development.

Overall, ADUs seem to differ from other housing in the individualistic ways they are created, owned, and managed by typical homeowners rather than developers and investors. In Portland, this “grassroots,” nonprofessionalized kind of development appears to be providing a variety of benefits to owners and community.

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Introduction

For several decades accessory dwelling units (ADUs) have been a subject of interest and controversy in communities around the United States and Canada.

An ADU is a small, independent dwelling that exists on the same property as a conventional single family home. ADUs can take various architectural forms, some "attached" to the primary home, for example a basement apartment, and some "detached" from the primary home, for example a backyard cottage. ADUs are known by dozens of synonyms, including granny flats and in-law units (Brown and Watkins 2012).

In general, planners and social advocates have promoted ADUs, seeing a flexible form of housing that might aid various civic purposes, such as housing older persons and providing affordable housing. Among the organizations that have lobbied for or favorably described ADUs are AARP, APA, and Medicare (AARP Public Policy Institute 2005; American Planning Association 2011; Medicare 2011). A few of the cities that have recently debated loosening restrictions on ADU projects include San Francisco, N. Ogden, Utah, and St. Paul, Minnesota (Bergerson 2014; Goebel 2014; Trotter 2014).

Though it is less discussed, ADUs also seem to have strong potential for reducing the environmental impact of housing. ADUs are by definition small, and increasing evidence has suggested that size is the single most important factor in the long-term environmental impact of a dwelling (Oregon Department of Environmental Quality 2010). The Oregon DEQ has supported the study of ADUs as part an effort to encourage space-efficient housing (Oregon Department of Environmental Quality 2014).

Opposition to ADUs has been scattered, but has struck consistent themes. The opposition comes largely from homeowners fearful of negative effects on neighborhood quality of life, for example parking problems, crowding, and declining property values (Anon. 2008; Laurelhurst Community Club 2009; westchester dad 2009).

Evaluating the validity of these competing hopes and fears about ADUs has proved difficult, because, despite the volume of civic debate, very little evidence has been published about real, existing ADUs. There is a scarcity of basic information about the residences themselves, their owners, their inhabitants, and their vehicles. Between 2000 and 2012, only two studies with this kind of relevant data appear to have been published. Chapman and Howe (2001) reported on a survey of Seattle owners of attached ADUs. Wegmann and Chapple (2012) reported on a survey of San Francisco Bay area homeowners with ADUs (many of them unpermitted).

In this paper we address the paucity of information. We summarize results from a survey of Portland, Oregon ADU owners, and use those results to examine some topical claims and questions:

- Are ADUs actually providing housing?
- Is ADU housing in demand?
- Do ADUs have a low environmental impact?
- Do ADUs contribute to neighborhood parking problems?
- Do ADUs serve older persons?
- How much do ADUs support the community economically?
- Do ADUs provide affordable housing?

- What are the barriers to ADU development?

This report is one of the first data-based investigations of issues around ADU development. As such, it cannot provide a definitive resolution to any open controversy about ADUs, but hopefully can begin an objective discussion.

Important characteristics of ADUs

Before reviewing claims and controversies about ADUs, it is important to recall the characteristics which make them unlike other kinds of real estate development.

Two dwellings, one owner: An ADU is a small, independent dwelling on the same grounds as an otherwise conventional single family residence. Regardless of its architectural form (backyard cottage, basement apartment, etc.), legally it is part of the same property as the primary home. It cannot be bought or sold separately, as a condominium or a dwelling on wheels might be. The owner of the ADU is the owner of the primary dwelling (Brown and Watkins 2012).

Homeowners as developers: The typical ADU is not created by a professional real estate developer. Rather, it is created by a homeowner who starts with a conventional single family property and does the work of a developer: contracting with designers and builders, paying for permits, wrangling with plans examiners, and taking on financial risk (Hickey 2010). These homeowner-developers may not have the same goals, and rarely have the same experience and resources, as professional developers.

Patchwork of regulations: States may require local governments to allow ADUs, but local governments often set their own terms and procedures (Antoninetti 2008). This creates a wide variety in regulations and conditions. Many local governments allow ADUs only when certain conditions have been met, such as owner occupancy of the property (e.g. Seattle Department of Planning and Development 2011) and the addition of extra off-street parking (e.g. Seattle Department of Planning and Development 2014). Fulfilling these conditions can be challenging; several writers have argued that they substantially mute, or sometimes even completely block, ADUs from being constructed (Brinig and Gamett 2013; Stege 2009).

Locally permitted, nationally mislabeled: Building a permitted ADU creates an apparent contradiction: a 2-unit dwelling in a neighborhood that is likely zoned for single-family homes. Though the property and its ADU are completely legal by local standards, national institutions such as lenders and Fannie Mae may struggle to fit the property into the categories used in their programs. They may lump such a property together with duplexes, with conventional single family residences, or with other things. They may use proxy measures (such as the number of electric meters) to give "support" for their classification. This creates considerable confusion among real estate professionals (real estate agents, lending agents, appraisers, etc), and probably suppresses the value of ADUs in real estate appraisals and transactions (Brown and Watkins 2012).

Rarity. Perhaps because of the confused state of regulations and categorization mentioned above, permitted ADUs are rare. For example, Portland is widely considered to be a leader in ADU development, but has about 800 ADUs (Palmeri 2014) out of approximately 148,000 properties where they could be permitted (Cunningham 2011) – a penetration rate of 0.5%. Accordingly, most discussion about the effects of ADUs is *prospective* – it voices benefits or fears that might be realized in the future,

not observations about the effects of ADUs that currently exist. Permitted ADUs are simply too rare to have been studied much.

Illegal units confuse the picture. Unpermitted ADUs appear to be plentiful, especially in areas with high rental demand (such as Boston and the San Francisco Bay area). There are tens or perhaps hundreds of thousands of illegal ADUs in the United States. In some densely occupied East and West Coast communities, illegal ADUs might compose 2% - 10% of housing stock (Wegmann and Nemirow 2011). One San Francisco study estimated more than 20% of residential buildings contained an illegal secondary unit (San Francisco Planning and Urban Research Association 2001). These ADUs are hard to characterize because they are "off the record," but certainly some of them are substandard and unsafe (Goebel 2013).

The Portland survey and our approach to interpreting it

In summer 2013 the Oregon Department of Environmental Quality's Green Building program sponsored a survey of the owners of permitted ADUs in the Oregon cities of Portland, Eugene and Ashland. The survey was executed by the Survey Research Lab of Portland State University, and their report (Survey Research Lab 2013) contains a detailed survey methodology, along with some basic results.

Of the three cities studied, the Portland results stood out as being worthy of further examination. Portland has seen a boom in ADU building in recent years (Palmeri 2014), and the city provided more than 200 responses. This made it possible to characterize Portland's ADUs, their owners, and their inhabitants in some detail. For categorical questions about Portland ADUs the Survey Research Lab projected a sampling error of $\pm 4.4\%$, smaller than the other cities surveyed.

Portland's experience should be interesting to residents of other cities, because Portland's restrictions on ADUs are relatively mild. ADUs are permissible on the great majority of single-family lots, given some conditions for square footage, placement on the lot, and other factors (City of Portland 2011). Unlike many other cities which allow ADUs, Portland has no requirement for owner occupancy in either the primary dwelling or the ADU (City of Portland Bureau of Development Services 2008), and no requirement to provide off-street parking (City of Portland 2011). If loosely regulated ADUs have consequences for the community, either good or bad, Portland should be a logical place to look for them.

We decided to use the Portland survey data to directly address eight questions (listed in the Introduction) raised in civic debate about ADUs around the country. For each one, we take a simple but formal approach.

- We report relevant results from the survey.
- We look for perspective in some comparable data from a credible outside source – for example, the Census.
- When possible, we phrase a simple hypothesis about the relationship of the survey result(s) and the outside data, and test the hypothesis statistically.

For example, consider the question, "Do ADUs serve older adults?"

- The survey gives us the proportion of Portland ADU residents in several age categories, including 55+ years old.

- Resident ages for a wider group of Portland households are available in the Census' American Housing Survey.
- We might then hypothesize: if ADUs preferentially serve older adults as places to live, we would expect the proportion of residents in ADUs who are 55+ to be greater than the proportion of residents in the general pool of all Portland rentals who are 55+. We could then test the hypothesis with a binomial test of proportions.

The Survey Research Lab (2013) data set contains the answers to 37 questions, which, upon examination, amount to several hundred independent variables. In the interests of space and clarity, we will not report results for every single variable. Rather, we will restrict our analysis to the eight topics previously listed, choosing the most relevant variables from the survey to address each topic. Readers looking for more detail can read the methodological report (Survey Research Lab 2013), which has some initial results for every variable, or download the survey data package (see below).

Comparative and supplemental data sources

Our primary comparative source of data is the American Housing Survey (AHS). The AHS is the US Census Bureau's periodic study of housing units and associated information, such as household size and income. A general description of the AHS can be found at US Census Bureau (2014a). The most recent summary of nationwide results, representing conditions in 2011, can be found in US Census Bureau (2013a).

For our work, we used a file with the same format as US Census Bureau (2013a), but custom generated to represent AHS results within current Portland city limits. This file, which we will refer to as US Census Bureau (2013b) was provided to us by Charles Rynerson of Portland State University's Population Research Center. A copy is available in the downloadable data package (see below).

We also draw on a survey of rents and vacancies in Portland apartments published by Multifamily NW (2013), and a study of parking conditions around certain Portland developments (David Evans & Associates 2012).

For a few topics we obtained some additional information about the respondents' properties. A special request to the Multnomah County assessor's office, keyed by the address of the ADU, gave us this information: the tax levy code associated with the property, the square footage of living area at the ADU's address (including the area of the primary dwelling), and the owner's address.

Downloadable data package

Readers can obtain a copy of the Portland survey data we used, along with a data dictionary, and additional survey responses from Eugene and Ashland. The downloadable package is available at <http://www.deq.state.or.us/lq/sw/wasteprevention/greenbuilding.htm> and <http://accessorydwellings.org/sidd/>.

Notes on limitations, uncertainty and statistics

As with any piece of research, the reliability and utility of this analysis are limited by the nature of the source data and the analysis design – as well as the reader’s purposes in using the analysis. While it would be exhausting to catalog every potential source of error or misinterpretation, several concerns seem most substantial to us:

- *Representativeness of the subject time and place.* Our primary data set comes from Portland, Oregon, in the summer of 2013 – that is, it is a snapshot of responses in a single city, in a single year. While we believe the survey does a credible job of characterizing ADU owners in that time and place (see Survey Research Lab 2013 for full details), we do not know how well Portland results can be extended to other cities, or how typical 2013 is of future years.
- *Use of published summaries in lieu of control groups.* In order to test a range of hypotheses with limited time and resources, this paper presents a “post-hoc” analysis, comparing existing survey results to published summary statistics (for example, averages taken from a Census table), rather than comparing experimental and “control” samples measured with identical methods. Such comparisons will never be perfect, since the “outside” datasets were created for different purposes, and have their own associated limitations. We treat summary statistics from the Census and other outside sources as parameters and do not attempt to incorporate their associated error.

Several statistical details are not errors, but may be of interest to readers.

- *Our work frequently refers to medians rather than means.* Our primary source of comparable data, the American Housing Survey (US Census Bureau 2013b) typically summarizes magnitude using the median instead of the mean. Accordingly, our statistical tests usually compare medians. We will often report the mean even if it cannot be used in statistical tests. Mean and median tend to be similar in this dataset.
- *Results in this report may differ from results in Survey Research Lab (2013).* Often we are interested in only a subset of the available data, for example only attached ADUs, whereas the Survey Research Lab report treats all responses en masse. Also, we treat missing values as missing (i.e. noninformative), whereas the Survey Research Lab report often lists them as categorical responses.

These imperfections and quirks are typical limitations given the subject matter, and similar concerns could be expressed about the few comparable publications (Chapman and Howe 2001; Wegmann and Chapple 2012; Rudel 1984). Given the poor state of prior knowledge about the reality of ADU developments (see the Introduction), we believe this paper makes an interesting contribution to the field despite its shortcomings.

Topics, Results & Discussion

Are ADUs providing housing at all?

Background

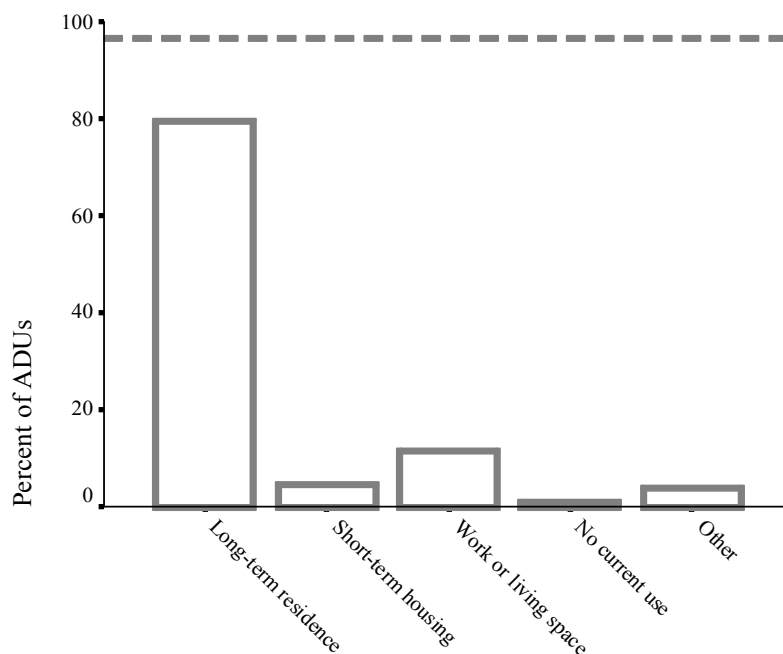
It may seem odd to question whether a housing form actually provides housing, but it is an essential premise influencing policy discussions. Writing about ADUs often implies that 100% of the units will be used for long-term housing, but in most cases there is little to stop owners from using them as offices, art studios, short-term rentals, extra living space for the owner, etc.

Such alternative uses have entered civic discussion. A news piece from Davis, California (Sakash 2013) reports that in a debate about ADU policies, an affordable housing advocate said, “A large percentage of them [ADUs] are used as home offices.” (The article does not include the basis for this statement.)

Relevant survey results

The uses of Portland ADUs, as found in the survey, can be seen in Exhibit A. 80% are in use or on the market as long-term “primary residences”, while 20% have an alternative use. The survey defined “primary residence” as the place a person usually lives, sleeps, eats, and receives mail. The most common alternative use is work or living space (11%), followed by short-term (<30 days) housing (5%).

Exhibit A. Current uses of Portland ADUs.



Notes: The dotted line marks the estimated proportion of all Portland housing units used as long-term residences, from the AHS.

These results are similar to Wegmann and Chapple's (2012) findings for (largely unpermitted) San Francisco Bay Area ADUs. They found that 86% of ADUs were in use or on the market as housing, and 14% had an alternative use.

Perspective and hypothesis

ADUs are not unique in this capability. Alternative uses are possible for any housing form. If ADUs are especially likely to have alternative uses, the proportion of Portland ADUs actually used for housing should be lower than the proportion of all Portland housing units actually used for housing.

The AHS file for Portland (US Census Bureau 2013b Table C-00-SV-M) relates that in 2011, of all 255.5 thousand housing units in Portland, 96.6% were in use as housing or available as housing through sale or rental.¹ This is significantly more than the 80% rate for Portland ADUs (binomial test with Z approximation, $p < 0.001$).

Discussion and additional results

While Portland ADUs are more likely to have alternative uses than other housing forms, the great majority (80%) are nonetheless used as long-term residences.

The 20% of ADUs that are not used as housing might be a kind of latent resource, an untapped reservoir of housing. These dwellings are already built and permitted, and can be turned from offices, workshops, etc, into long-term rentals immediately if owners become motivated to do so.

Such scenarios have already been contemplated by many ADU owners. Exhibit B indicates that 33% of those currently using their ADU for an alternative purpose plan to use it as a long-term residence in the future. Similarly, 10% of those currently using their ADU as a long-term residence plan to use it for something else in the future.²

¹ Specifically, there are 255.5 thousand housing units. 229.8 are occupied, and so are used as housing. Of the 24.5 thousand units vacant, 6.1 are for rent, 2.7 are for sale, and 7.1 are rented or sold. 4.8 are “occasional use/URE” and 3.9 thousand are “other vacant.” The only ones that are conceivably not residences are the last two categories, which represent 3.4% of all housing units. Therefore 96.6% are used as residences.

² Percentages in the relevant part of Exhibit B add to >10% because this survey question allowed multiple responses.

Exhibit B. Current, past and future uses of Portland ADUs.

	<u>ADU currently used as long-term residence</u>	<u>ADU currently has alternative use</u>	<u>All finished ADUs</u>
<u>Past uses</u>			
Long-term residence	93%	31%	80%
Short-term housing	5%	43%	13%
Extra room or workspace	12%	69%	23%
Other	4%	11%	5%
<u>Anticipated future uses</u>			
Long-term residence	95%	33%	82%
Short-term housing	7%	43%	15%
Extra room or workspace	8%	65%	20%
Other	3%	15%	5%

Notes: Respondents were asked how their ADU is currently used, how it has been used in the past, and how they anticipate using it in the future. For example: 12% of respondents currently using their ADU as a residence have used it as extra room or workspace in the past. Sums may not equal 100 because respondents could choose multiple answers.

The awareness of ADU owners to the many potential uses of their dwellings may be increased by proximity. Even though Portland does not require owner occupancy of properties with ADUs, we estimate that 64% of ADU owners occupy their properties nonetheless³.

"Our ADU really gives us added flexibility," wrote one respondent in the open comments of the survey, "from guest space for friends to long term use by neighbors reconstructing their own house nearby (lived in the ADU for 2.5 years) to its current use for supplemental income [as] a vacation rental."

³ In preparation for the survey, one of us (JP) compared the addresses of Portland ADUs to the mailing addresses of their owners. In 447 out of 701 cases (64%) the addresses were the same, indicating owner occupancy.

Is ADU housing in demand?

Background

ADUs are a relatively unusual type of housing in Portland. It is reasonable to ask if they are a kind of housing tenants want. A basic indication of their desirability to tenants should be vacancy rate.

Relevant survey results

Vacancy rates for Portland ADUs used as long-term residences can be found in Exhibit C. Over all ADUs, the rate was 2.4%. It was 2.0% for attached ADUs, and 2.8% for detached ADUs. The most common combination of size and configuration for ADUs in the survey, the attached 1-bedroom unit, had a vacancy rate of 1.9%.

These numbers are similar to the 1.4% vacancy rate observed by Wegmann and Chapple (2012) in the Bay area.⁴

It is important to note that the absolute number of vacant ADUs in the survey, and in Wegmann & Chapple (2012), was quite small. Therefore the vacancy rates suffer from the noise inherent in estimating the frequency of uncommon events. Small distinctions (e.g. between 2.0% and 2.5%) will have little meaning given the sample size.

Exhibit C. Vacancy rates in Portland ADUs, with market comparison.

No. bedrooms	Detached		Attached			All	
	Vacancy in ADUs	N	Vacancy in ADUs	N	Vacancy in apartments	Vacancy in ADUs	N
0 (studio)	0.0%	27	5.6%	18	3.9%	2.2%	45
1	3.8%	52	1.9%	53	2.9%	2.9%	105
2	3.4%	29	0.0%	24	3.7%	1.9%	53
3			0.0%	4		0.0%	4
All	2.8%	108	2.0%	99	3.3%	2.4%	207

Note: while the table shows apartment vacancy rates that are often higher than ADU vacancy rates, none of the differences are statistically significant (see text).

Perspective and hypothesis

If Portland ADUs are more desirable than standard rentals, their vacancy rate should be lower than the vacancy rate in the broader market of similarly sized and located rentals.

For detached ADUs, the most comparable kind of rental would probably be small single family houses. Unfortunately there is no easily obtainable vacancy data for such dwellings. For attached ADUs, duplexes would probably be the most comparable kind of rental, but again there is no easily obtainable

⁴ In Wegmann and Chapple (2012), 1.4% comes from 1 in 72 units that were in use or available as residences.

vacancy information. Data is available, however, for apartments. Multifamily NW (2013) gives vacancy rates for various sizes of apartments in various sectors of the city.

We compared Multifamily NW (2013)'s vacancy rates to the rates observed in attached ADUs. To make the two data sources comparable, we weighted Multifamily NW (2013)'s rates by the number of comparably located, comparably sized, and attached ADUs in the survey.⁵

Exhibit C shows that over all attached ADUs, the vacancy rate was 2.0%, while it was 3.3% in the comparable apartments. This difference is not significant (binomial test, z approximation, $p > 0.3$). In studio sized (0-bedroom) attached ADUs the vacancy rate was 5.6%, compared to 3.9% for the comparable apartments. This difference is not significant ($p > 0.4$). In 1-bedroom ADUs the vacancy rate was 1.9%, while it was 2.9% in the comparable apartments. This difference is not significant ($p > 0.4$).

Discussion

Portland in 2013 was a tight rental market with low vacancies (Njus 2013). In that market, ADUs seemed to be similar to apartments in their attractiveness to renters. There is currently no indication that ADUs are less preferred by tenants. An examination of rents (see the section on "Do ADUs provide affordable housing?") suggests that attached ADUs may actually be preferred to standard apartments.

It seems likely that ADU owners will be able to find tenants as easily as conventional landlords – a fact that may influence their financial planning. One respondent to the survey commented, "The ADU is one of the best investments I ever made. It has been continuously rented since completion providing important income to us."

⁵ The weighting was necessary because the apartments in the Multifamily NW (2013) survey did not have the same geographic distribution as attached ADUs. Without an adjustment, a high concentration of apartments in a part of the city with few ADUs could dominate the apartment vacancy rate in a way that is irrelevant to the comparison with ADUs.

Do ADUs have a low environmental impact?

Background

Though it is not widely discussed, one of the strongest policy arguments for promoting ADU development may be environmental impact. ADUs are typically "infill" development, increasing density in existing neighborhoods. Increased density is arguably connected to higher transit use and lower energy use (Brownstone and Golob 2009).

ADUs also appear to offer a solution to the current mismatch between housing stock and demographic trends. For decades, average US household size has been declining... from 3.7 persons/household in 1940 to 2.6 in 2011 (US Census Bureau 2011b). At the same time, the median size of new single family houses has been increasing, from around 1000 square feet in 1950 (Harris et al. 2006) to 2306 sf in 2012 (US Census Bureau 2013c). Accordingly, median square footage per person in new construction has been increasing, from 676 sf per person in 1993 (US Census Bureau 1995) to 850 in 2011 (US Census Bureau 2013a).

As houses have grown, evidence has accumulated that size is likely the single largest factor in the environmental effect of a dwelling, in terms of both energy and materials. The Oregon DEQ has conducted detailed modeling of the long-term effects of various green housing technologies, comparing about 25 green building practices such as better insulation and windows, increased air tightness, advanced framing, and reducing home size. This study (Oregon Department of Environmental Quality 2010) found that, of all the practices studied, reducing home size was the most beneficial practice for reducing both material and energy related environmental impacts. Comparing a "medium" house of 2262 square feet (which is similar to the median size in new construction) to an "extra small" house of 1149 sf, it found the extra small house reduced numerous measurements of environmental impact by 20-40%, while the climate change impact was reduced by 36%.

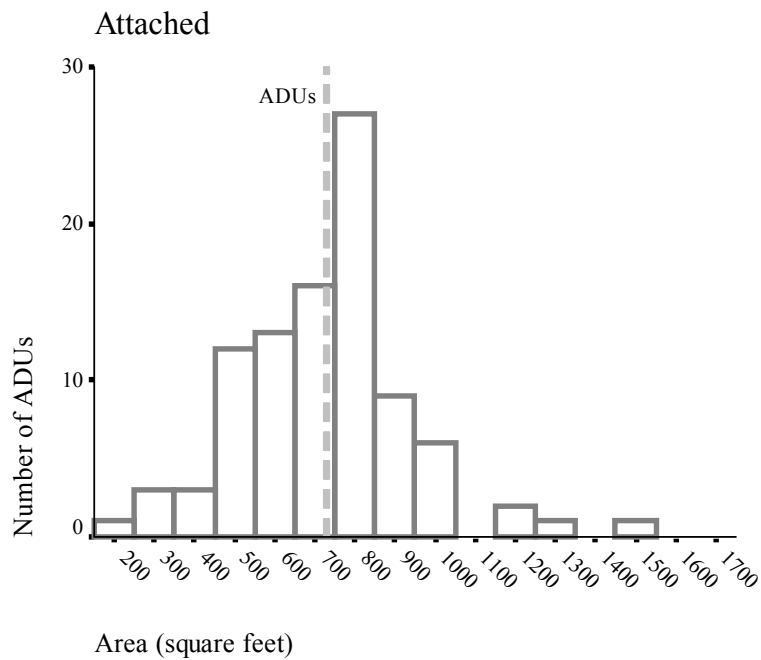
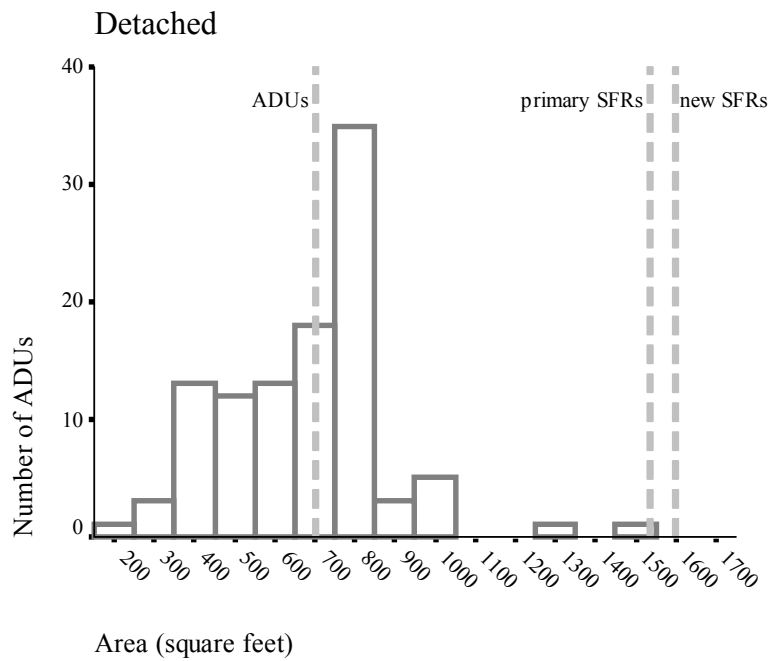
Relevant survey results

The size distribution of Portland ADUs is shown in Exhibit D. 85% of ADUs were less than or equal to 800 square feet in area, probably because 800 is the maximum allowed under Portland rules without a variance. The range was 200 to 1500, and medians were 700 square feet over all ADUs, 728 for attached ADUs, and 700 for detached ADUs. The overall mean was 689 square feet, which is slightly larger than the ADUs Wegmann & Chapple (2012, Table 9) described in the Bay Area, which had a mean of 559 square feet.

The household sizes found in Portland ADUs are shown in Exhibit E. 60% of Portland ADUs were occupied by 1 person, 35% by 2 people, and only 5% by 3 or more. The mean household size was 1.45 over all ADUs, 1.39 in detached ADUs, and 1.52 in attached ADUs.

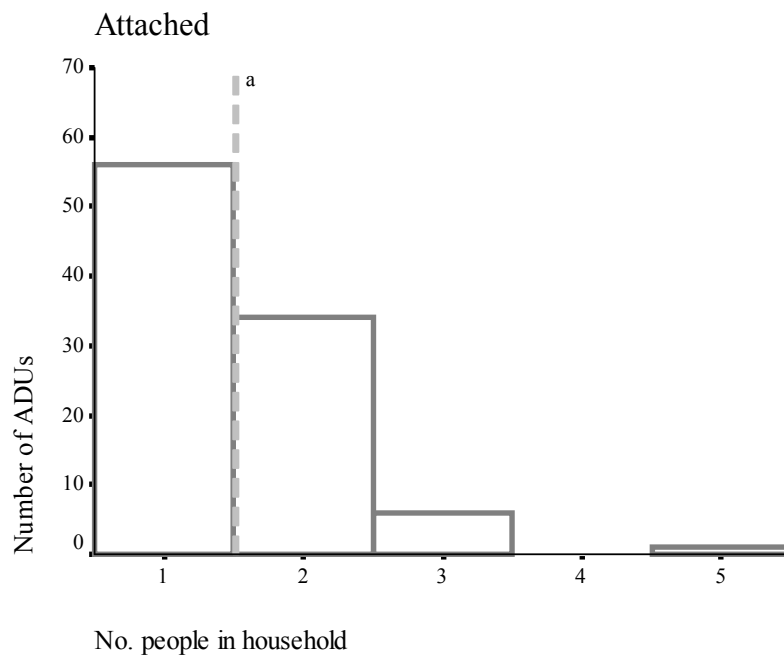
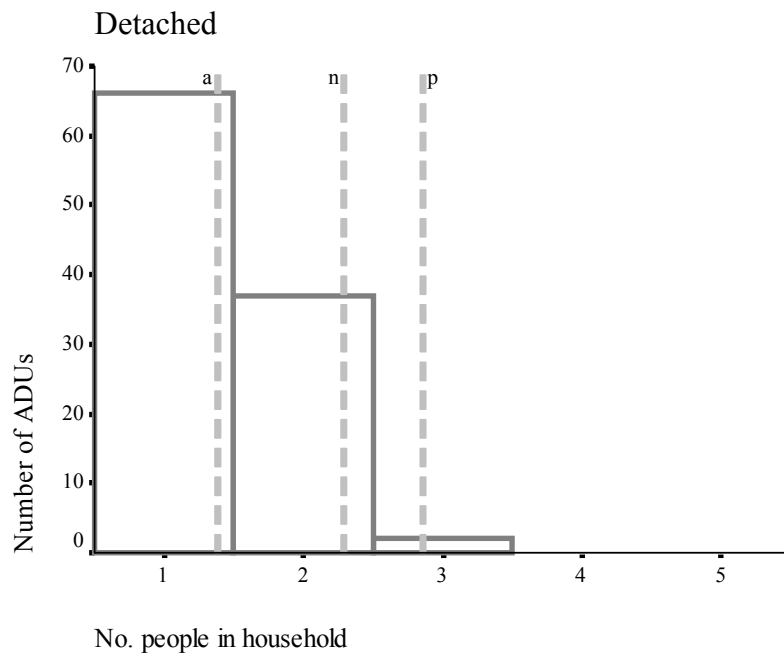
The distribution of square footage per person in Portland ADUs is shown in Exhibit F. The median over all ADUs was 470 sf/person, and the medians for attached and detached were 500 and 450 respectively. Though the range reached from 100 to 1500 sf/person, 93% of values were 800 sf/person or lower. The means were 533 sf/person overall, 547 sf/person for attached, and 520 sf/person for detached.

Exhibit D. Size of Portland ADUs, with comparatives.



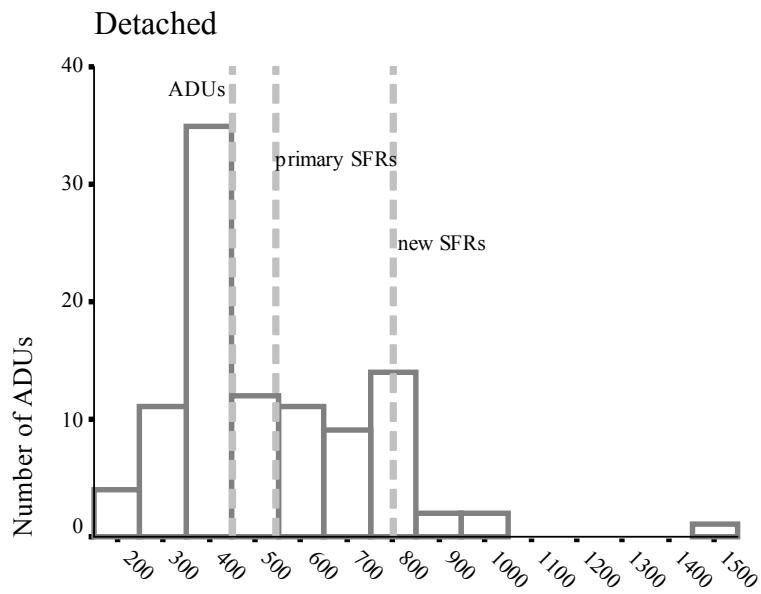
Notes: Dotted lines are median sizes of: detached Portland ADUs, newly constructed SFRs, and the "primary" SFRs associated with the surveyed ADUs.

Exhibit E. Household size in Portland ADUs, with comparatives.



Notes: Dotted lines are mean household sizes for: (a) Portland ADUs, (n) newly constructed SFRs, and (p) the "primary" SFRs associated with the surveyed ADUs.

Exhibit F. Area per person in Portland ADUs, with comparatives.



Notes: dotted lines are median areas per person in: Portland ADUs, newly constructed SFRs; and the primary SFRs associated with the surveyed ADUs.

Perspective and hypotheses

If ADUs are lighter on the environment, they should have smaller areas per dwelling, and smaller areas per occupant, than other new residences. We focus our initial formal comparison on newer residences because most ADUs in the survey were recently built. 54% of Portland ADUs in the survey were built in the 4 years preceding the survey (i.e. 2009 or after), and all of them after 1994. In contrast, existing Portland housing stock in the study neighborhoods is typically 50-100 years old.

The AHS contains information about the area, household size, and area per person of “new” construction (built within the four years before its survey). Since this particular information is only available for detached single family residences (SFRs), we will compare the AHS information to the survey's detached Portland ADUs. Since most ADUs are rented out as long-term residences (Exhibit A), we will use the version of the AHS results that refers to rented units.

As the reference lines in Exhibit D show, newly constructed SFRs in Portland are significantly larger than ADUs - the median square footage is 1600 (US Census Bureau 2013b Table C-02-RO-M), compared to 700 sf for Portland detached ADUs ($p < 0.001$, one-sample median test).

Household sizes diverge as well, but not as dramatically (Exhibit E). The mean household size in Portland's detached ADUs is 1.39, whereas in newly constructed, rented SFRs we estimate it is 2.26 (calculated from US Census Bureau 2013b Table C-08-RO-M).

As a consequence living area per person is significantly lower ($p < 0.001$, one-sample median test) in detached Portland ADUs. Exhibit F shows a median of 450 sf/person, compared to 800 sf/person in newly constructed, rented SFRs.

Discussion and further results

These results suggest new detached ADUs should have significant environmental benefits over new SFRs, even if the ADUs have no above-code green features. Detached ADUs have a median size that is 56% smaller than newly constructed rental SFRs. More significantly, detached ADUs have a median living area per person (the most exacting proxy for environmental impact available with this survey data) that is 44% smaller than new rented SFRs.

That particular comparison (detached ADUs vs. new rented SFRs) is narrowly drawn, because it tries to match housing forms, age, and uses. Does the living area “advantage” for ADUs hold up when broader groups of homes are compared? Exhibit F2 provides some information.

Exhibit F2. Comparisons of living area per person in Portland ADUs and SFRs.

<i>Survey study group</i>	<i>Median living area/ person (ft²)</i>	<i>Comparative group</i>	<i>Median living area per person (ft²)</i>	<i>p-value^a</i>
Detached ADUs	450	Newer rented SFRs	800	<0.001
All ADUs	470	All SFRs	700	<0.001
All ADUs	470	“Primary” SFRs ^b	574 ^b	<0.01 ^c
All ADUs	470	All rented SFRs	404	<0.001

Notes: ^a One-sample median tests unless otherwise noted. ^b “Primary” SFRs are the SFRs associated with the surveyed ADUs. For this group of dwellings, the living area per person statistic should be considered a first estimation only. It relies on county records that are of mixed accuracy. ^c Wilcoxon signed ranks test on paired observations.

Exhibit F2 shows Portland ADUs have lower living area per person than new rented SFRs, than primary SFRs (i.e. the ones that accompany the ADUs in this study), and than the general collection of all Portland SFRs, both owner-occupied and renter-occupied.

There is one exception to the trend. ADUs have a larger, not smaller, median living area per person when they are compared to renter-occupied SFRs of any age. This contrasting result probably arises from a large number of 3+-person households living in houses built 50-100 years ago, which generally were smaller than today's construction. The median size of these rental SFRs is 1200 sf, whereas for newly constructed ones it is 1600 (US Census Bureau 2013b). This result may not be a serious blow to the environmental argument for ADUs. Housing policy is mostly concerned with the kind of units that will be built in the future, and for those, recent construction seems a better indicator than construction 5-10 decades old. Moreover, most older SFRs were built to environmental standards below today's codes, and new ADUs are sometimes built well above code.

Green features in Portland ADUs

The survey asked ADU owner-developers about the presence of eight different above-code green features in their ADUs. The most commonly applied (>50% of ADUs) were above-code insulation and weatherizing, high efficiency windows, and Energy Star appliances (Exhibit G). More than half the ADUs had at least three of the eight features, and 23% of the ADUs had five or more (Exhibit H).

Unfortunately the data available to us do not allow us to make a clear test of whether such features are more frequent in ADUs than in other new dwellings in Portland. The most comparable statistic comes from the Energy Trust of Oregon, which tracks the percentage of new dwellings in the state for which it has granted financial incentives for above-code work achieving certain targets. In 2010 they credited 13% of new dwellings, and in 2011 they credited 20% (Leonard 2014). It is unclear how many ADUs would have met Energy Trust standards, but the fact that 23% of ADUs had five or more above-code features suggests that Portland ADUs are at least as "green" as other new construction, even before the size advantage of ADUs is taken into account.

While ADUs are significant construction projects, they may be small enough that homeowner-developers feel able to experiment with green features.

"In our attempt to reduce our environmental impact," commented one respondent, "we repurposed and reused a large amount of materials including lumber we had recertified, doors, finish materials, tile, granite, appliances and more. Other significant items include 1/3 to 1/2 FSC certified lumber, straw bale construction, natural earthen floors and lime/sand wall plaster finishes."

Exhibit G. Above-code “green” features in Portland ADUs.

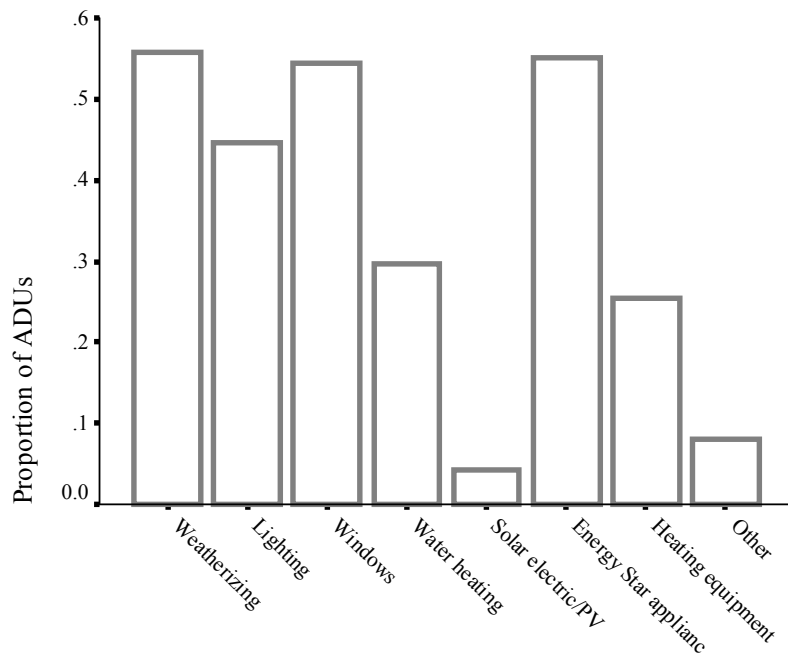
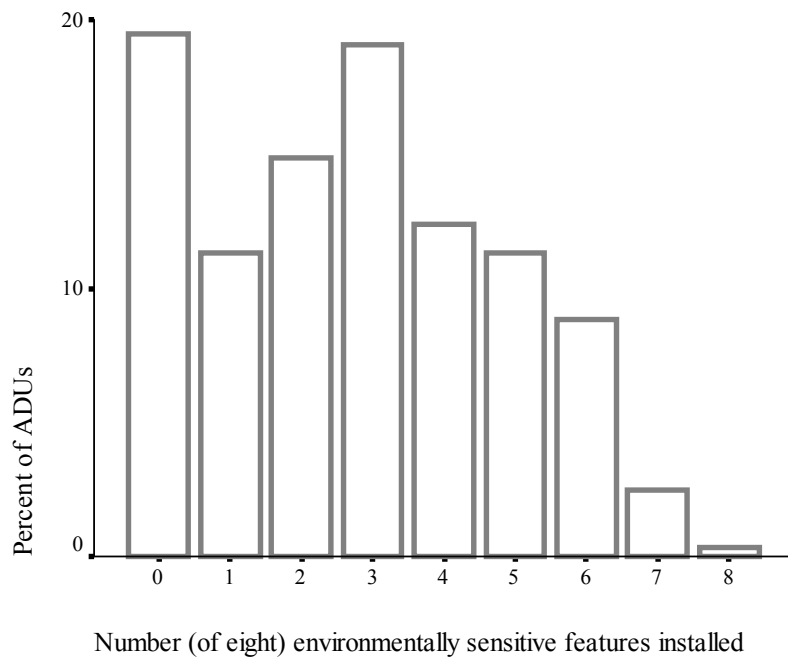


Exhibit H. Number of above-code “green” features in Portland ADUs.



Notes: Respondents were asked if they had installed eight different above-code environmental features in their ADUs. Exhibit G shows the proportion of Portland ADUs with each feature. Exhibit H adds their responses gave each ADU a score from 0 (no features installed) to 8 (all features installed).

Final thoughts

These results clearly suggest ADUs could have significant environmental benefits. Assuming that living area per person is an informative proxy for environmental impact, ADUs should use less materials and create less ongoing energy demand per person than the SFRs typical of residential neighborhoods. Moreover, ADUs seem better matched to the 1- and 2-person households that are common today than large SFRs.

Of course, ADUs and SFRs are not the only development options for a growing city like Portland. Multifamily developments (e.g. apartment blocks) also seem likely to feature a low living area per person (though we could find no statistics on this topic for Portland). However, it may be difficult or impossible to place multifamily developments (especially larger ones) in or near existing residential neighborhoods. Meanwhile, ADUs can fit into such neighborhoods without much disruption, and sometimes with hardly any notice at all (Spevak 2013). ADUs and multifamily developments may complement each other in a long-term housing strategy.

Do ADUs contribute to neighborhood parking problems?

Background

One of the most frequent objections to ADU developments is the fear they will reduce the availability of on-street parking for current neighborhood residents (Anon 2010; Campbell 2013; Laurelhurst Community Club 2009).

There is very little published evidence, positive or negative, on the relationship of ADUs and parking. Nonetheless, many municipalities have preemptively addressed parking in their ADU codes. The local government may require the homeowner-developer to provide some quantity of off-street parking (e.g. Spokane County 2012). Meeting that requirement may be difficult or expensive and has been blamed for minimizing ADU development in areas that ostensibly allow it (Brinig and Gamett 2013).

Portland seems to be unusual in that it has no particular parking requirement associated with ADUs (City of Portland 2011). In this "unregulated" environment, any negative effect of ADUs on street parking should, in theory, be more perceptible.

Relevant survey results

The number of cars (including small trucks and SUVs) associated with Portland ADUs is shown in Exhibit I. 20% of ADUs had zero cars associated with them, 66% had one car associated with them, the maximum was three, and the mean was 0.93 cars.

Less than half of these vehicles were parked on the street, as Exhibit J shows. Nearly two-thirds (63%) of ADUs were associated with zero cars parked on the street. 29% of ADUs were associated with a single car parked on the street. The mean number of street-parked cars per ADU was 0.46.

These numbers are similar to those found by Wegmann & Chapple (2012) for the East Bay area, who found that 22% of ADU households had zero cars. The mean number of cars added per ADU household in their study was 0.9, of which a mean of 0.7 were parked on the street.

Exhibit I. Cars associated with Portland ADUs, with comparatives.

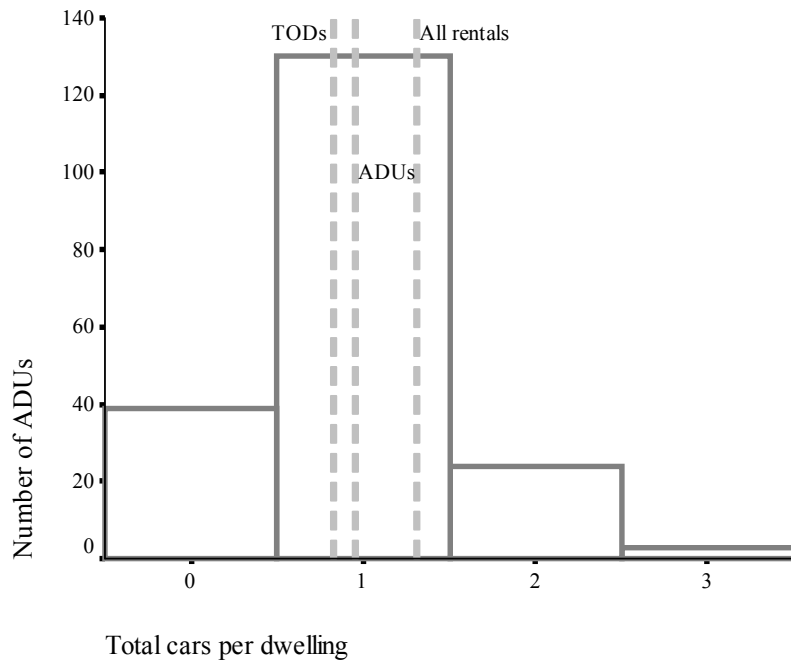
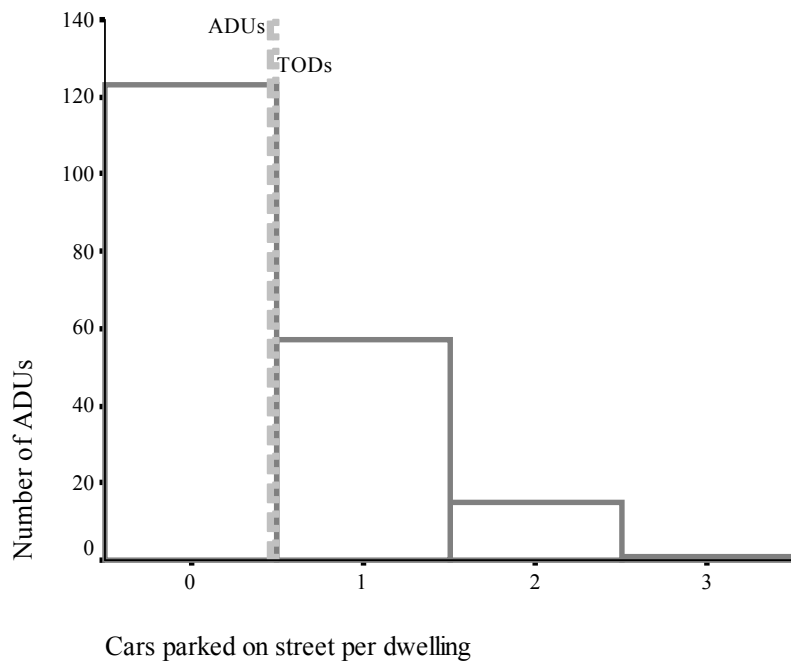


Exhibit J. Number of street-parked cars associated with Portland ADUs, with comparative.



Notes: Dotted lines are the mean number of cars (top panel) or number of street-parked cars (bottom panel) associated with: Portland ADUs, transit-oriented developments, and all Portland rentals.

Perspective and hypotheses

The task of composing hypotheses about ADUs and parking immediately raises the question "Compared to what?"

That is, should the number of cars contributed by ADU developments to SFR neighborhoods be compared to zero change (i.e. no additional housing and no change in household size)? Or, is the alternative to ADU development some different kind of development? In that case, the most relevant question is not *if* development will affect cars and parking, but *how much* does each housing form affect it?

We can investigate the "zero change" scenario with a simple retrospective calculation: how many cars have ADUs already added to Portland single family neighborhoods? The average household in Portland is associated with approximately 1.53 vehicles, according to the AHS (calculated from US Census Bureau 2013b Table C-02-AO-M). There are approximately 148,000 single family properties in Portland where ADUs would be allowed (Cunningham 2011), for an estimated total of $1.53 \times 148,000 = 226,440$ vehicles associated with SFRs. There were approximately 800 permitted ADUs in Portland by the end of 2013 (Palmeri 2014), each of which the survey shows is associated with an average of 0.93 cars. The estimated total number of cars associated with permitted ADUs is $0.93 \times 800 = 744$ cars. Overall, ADUs have added 0.33 % to the cars associated with SFR neighborhoods, and less than half of them have been parked on the street. It seems unlikely that, on a city-wide basis, ADUs have yet had any noticeable effect on parking.

Zero change is not a likely scenario in Portland (Metro 2010). The city is attracting new residents while it is geographically constrained by the Metro urban growth boundary and natural features such as rivers. Accordingly, we would like to compare the vehicles associated with ADUs with those associated with other forms of development that might provide future housing. If ADUs are particularly responsible for increasing the number of vehicles in neighborhoods or parked on the street, then cars per dwelling and street-parked cars per dwelling should be higher for ADUs than other types of development.

Some comparable data about vehicles is available for two classes of housing:

- All newly constructed rental housing in Portland, in the AHS (US Census Bureau 2013b Table C-02-RO-M). Building type is not specified in this table but newly constructed rental housing in Portland is predominantly "multifamily" with 20+ units per development. (US Census Bureau 2013b Table C-01-RO-M).
- "Transit-oriented development." Generally this phrase, and the abbreviation TOD, refers to a theme or technique in planning that intensifies development near transit resources (Cervero, Ferrell, and Murphy 2002). However in this paper we specifically refer to a set of large apartment buildings in Portland that were built along transit corridors on the edges of SFR neighborhoods, and permitted with a smaller number of parking spaces than might be expected elsewhere (Mesh 2012). These developments have caused neighborhood protest about possible loss of parking (Beaven 2012). In response, the city commissioned a report (David Evans & Associates 2012) that includes data on vehicles per household and parking spaces in these buildings. We summarized the figures in Table 2 of that report to get the numbers we use here.

As the reference lines on Exhibit I illustrate, newly constructed rental housing in Portland is associated with a mean of 1.31 cars per dwelling (calculated from US Census Bureau 2013b Table C-02-RO-M). This is significantly more than 0.93, the mean for ADUs ($p < 0.001$, one-sample t-test). Transit-oriented developments are associated with 0.83 cars/dwelling, which is less than the 0.95 for ADUs ($p = 0.01$, one-sample t-test).

Unfortunately the AHS data does not have specific numbers about cars parked on the street. But ADUs can be compared with transit-oriented developments. Summarizing numbers from David Evans & Associates (2012), Table 2, there is an average of 0.34 parking spaces per unit. Since there are 0.83 cars per unit, an average of 0.49 (i.e., $0.83 - 0.34$) must be parked on the street. As shown in Exhibit J, this is slightly more than, but not significantly different from, the average of 0.46 street-parked vehicles for each ADU ($p = 0.4$, one-sample t-test).

Discussion

Any kind of new development is likely to add some cars to the urban landscape. Our results indicate that ADUs are associated with fewer cars than the general set of new Portland rentals -- an average of 0.93 vehicles per unit, compared to 1.31. If the goal of planning is to reduce vehicles per household, ADUs seem like a relatively good option.

ADUs do not appear to be quite as effective at reducing vehicles per household as “transit-oriented developments,” with means of 0.93 and 0.83 vehicles per dwelling respectively. However, experience in Portland suggests ADUs can be less controversial than TODs.

Looking at the quantity of vehicles parked on the street, ADUs and TODs seem quite similar (0.46 and 0.49 street-parked vehicles per unit in our estimation). But public reaction to them has been very different. Transit-oriented developments have caused a vigorous protest in Southeast Portland over their possible effect on parking (Beaven 2012). Meanwhile, we have observed no organized protest in Portland over ADUs and parking.

It seems possible the resistance to Portland’s recent transit-oriented developments arises from their concentrated nature. TODs add a high number of living units to a small area, so any increase in vehicles will be more noticeable. In contrast, ADUs are dispersed through neighborhoods, and each additional dwelling creates only a small incremental change (Spevak 2013).

Future parking conditions in Portland seem likely to be influenced more by general development patterns than requirements for parking at ADUs, or lack thereof. City permit records indicate that over the 5-year span of 2008-2012 inclusive, only 405 new ADUs were created, while 6237 units were created in new multifamily buildings (Wood 2013). Assuming this trend continues, choices made in the multifamily field will be crucial. Will the thousands of new dwellings be typical, contributing 1.31 cars per unit, or more like TODs, contributing 0.83 cars per unit?

The effect of ADUs on parking in Portland has been negligible, to date, for a number of reasons. ADUs are associated with a modest number of vehicles per dwelling; some of these cars are parked off the street; ADUs are dispersed throughout neighborhoods; ADUs are generally rare; and other forms of development have far more impact. Until those factors change substantially, the fear that ADUs harm parking conditions will have little rational basis.

Do ADUs serve older persons?

Background

Three decades ago the needs of older persons were the primary rationales for promoting ADU development. Programs like "Double Unit Occupancy" (San Francisco Development Fund 1988) reasoned that a retiring person who builds an ADU might then have two kinds of resources:

- a place to live suited to their needs, possibly with family nearby;
- a place to rent out, providing much-needed income;
- or possibly both.

This concept was supported by an opinion poll showing that most aging people wanted to stay in their homes as they aged (AARP Public Policy Institute 2005). AARP supported ADUs with the writing of a model code (Cobb and Dvorak 2000).

Relevant survey results

Exhibit K shows the age of Portland ADU resident "heads of household," as observed in the survey.⁶ Because the survey recorded ADU resident ages only in broad categories, we must characterize "older" ADU residents as those 55+ years old. 22% of residents in ADUs were in the 55+ category. The approximate median age of ADU residents (estimated from the categorical results) is 36 years old.

In comparison, in the Bay area, Wegmann & Chapple (2012) found that the mean age of residents of (largely unpermitted) ADUs was 38.6, and that 4% of those residents were 65+. In attached Seattle ADUs, Chapman & Howe (2001) found that approximately 12% of tenants were 55+.

Switching to the topic of ADU owners rather than tenants, Exhibit L shows owner ages for Portland ADUs. For these subjects, we have ages to the nearest year. 46% of ADU owners in Portland are 55+, and 18% are 65+. The mean age of Portland ADU owners is 52.2 and the median 53.

For comparison, Wegmann & Chapple (2012) found that the mean age of Bay Area ADU owners was 49.6. Chapman & Howe (2001) found a similar mean for owners, 50, and noted 13% were 65+.

When we look at ADU resident and owner as a pair for each property, we can estimate that 72% of the time, Portland ADU owners were older than their tenants.

⁶ In 60% of cases there was only one person inhabiting the ADU, so they were the head of household. If there was more than one person in the ADU, we took the one with the highest age category as the head of household.

Exhibit K. Ages of occupants of Portland ADUs, with comparative.

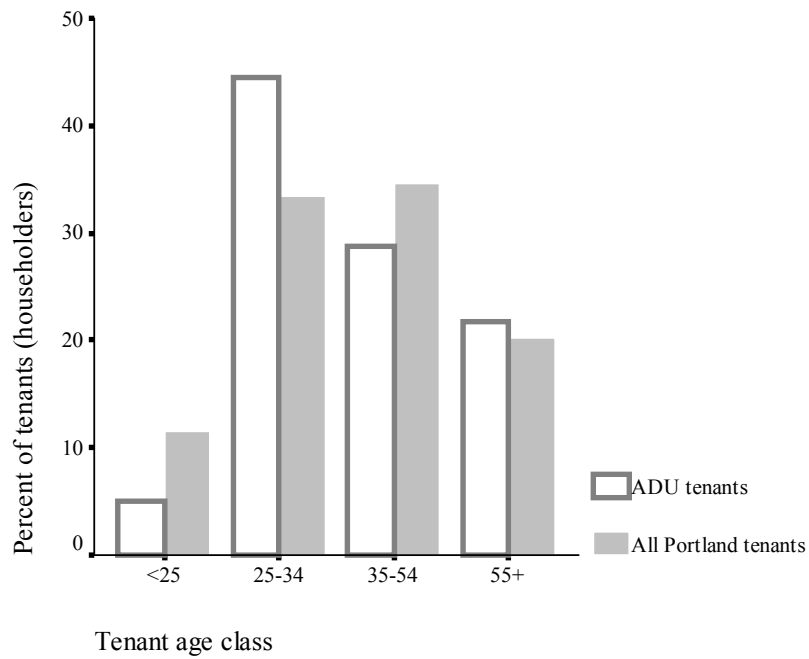
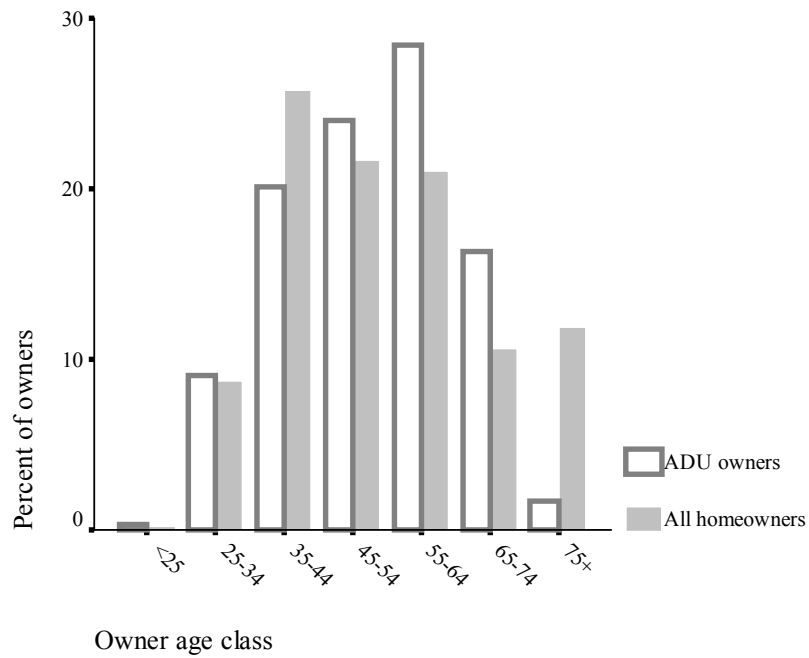


Exhibit L. Ages of owners of Portland ADUs, with comparative.



Perspective and hypotheses

For perspective we need to compare these distributions to the wider population.

- If Portland ADUs are preferentially supporting older persons with living space, we would expect ADUs to have a higher proportion of residents 55+ than the general collection of Portland rentals.
- If Portland ADUs are preferentially supporting older persons with rent money or other benefits of ownership, we would expect a higher proportion of owners 55+ or 65+ for Portland ADUs than for general Portland SFRs.

Exhibit K compares the ages of householders in all Portland rentals with those in ADUs. The distributions are similar in shape. The median age of a Portland renter-householder, according to the AHS, is 35, nearly identical to the estimated median for ADU renters, 36. The two data sets show similar proportions of renter-householders who are 55+ years old: 22% for ADUs vs. 20% for the general pool of Portland residents. This difference is not significant ($p>0.3$, binomial test with z approximation). The most notable difference is in the 25-34 year-old age class, where ADUs have 44% of their tenants, 10% more than Portland rentals in general.

Exhibit L compares the ages of all Portland homeowners with the ages of Portland ADU owners. The age distributions are similar, except in the highest age classes. The median age of Portland ADU owners, 53, is not significantly different than the median for all Portland homeowners in the AHS, which is 51 ($p>0.1$, one sample median test). ADU owners are equally as likely as the typical Portland homeowner to be 55 or more: 47% of ADU owners are in that age class, vs. 44% in the AHS, a difference that is not significant ($p>0.2$, binomial test with z approximation). ADU owners are slightly less likely than the typical Portland homeowner to be 65 or more: 18% of ADU owners are in that age class, vs. 22% of Portland homeowners ($p=0.06$, binomial test with z approximation).

Discussion

ADUs in Portland do house and support older persons, but apparently no more than other forms of housing. The distribution of renter and owner ages in ADUs and the general Portland population are generally similar.

However, there are indications ADUs may support Portland's older citizens in a more substantial way in future years. The top age classes among ADU owners (Exhibit L) show an interesting trend. 55-64 year olds, and 65-74 year olds, are more common among ADU owners than all Portland homeowners. Meanwhile there are very few ADU owners in the highest age class (75+). This may be because the retired people are less likely to build ADUs than middle-aged people (Chapman and Howe 2001; San Francisco Development Fund 1988).

In ten years, the clump of Portland owners currently 55-64 will be of retirement age, and those 65-74 will likely be well into retirement. If these people still own the properties, they will have the kind of resources that ADU advocates imagined three decades ago.

Some comments in the survey showed owners can have such a fallback plan in mind. One respondent wrote:

"We rent [our ADU] to a young family member and might live in the little house when we retire, renting the main house to supplement our income."

How much do ADUs support the community economically?

Background

ADUs are significant construction projects that produce permanent dwellings. They should have an impact on the local economy in at least two ways.

In the short term, construction redistributes money held in personal savings or bank reserves, transferring it to parties such as contractors, suppliers, city permitting agencies, architects, and lending agents. The total benefit should be a function of the construction cost.

In the longer term, permitted ADUs become part of the property tax base. Assessors increase the assessed value of the property to reflect the presence of the new ADU, and the owner's property taxes rise accordingly.

We worked to quantify the magnitude of these effects for ADUs. Because we found it difficult to easily obtain construction cost and property tax data for other housing forms that seemed comparable to the surveyed ADUs, we will skip hypothesis-testing and keep our results descriptive.

Construction costs and benefits

The construction cost of the ADUs in the survey is given in Exhibit M.⁷ We considered only respondents who were the developers of their ADUs, since their involvement should make figures more reliable. Over all ADUs, self-reported construction costs ranged from \$3500 to \$300,000, the mean was \$78,760, and the median was \$65,000.

There was a noticeable cost difference between attached and detached ADUs, with attached units significantly cheaper than detached; the medians were \$45,500 and \$90,000 respectively ($p < 0.001$, Mann-Whitney U test). Presumably, attached units gain economy by utilizing pre-existing structures and systems. A few detached units were extremely expensive, and comments on the survey suggest this may have been because of special green features.

Expressing costs on a square-foot basis (Exhibit N), the range was \$6 to \$438, the mean \$121 and the median \$108.⁸ Attached units were cheaper than detached in this view as well, with medians of \$65 and \$145 respectively ($p < 0.001$, Mann-Whitney U test).

Where does the construction money go? Among the most common recipients of this money were paid contractors, used by 85% of homeowner-developers, and paid architects and designers, used by 41%.

The National Association of Home Builders has a model (National Association of Home Builders 2013) that estimates local benefits from construction costs. We applied that model, but changed the inputs to reflect the average cost of a Portland ADU (about \$78,000), and the current fee structure related to ADUs. The output estimated each ADU led to \$63,104 in local gross income and 0.94 local jobs in the first year.

⁷ Since most ADUs were constructed recently we have made no attempt to correct for inflation.

⁸ One ADU's apparent cost per square foot was \$1000; we ignored this.

Exhibit M. Construction cost of Portland ADUs.

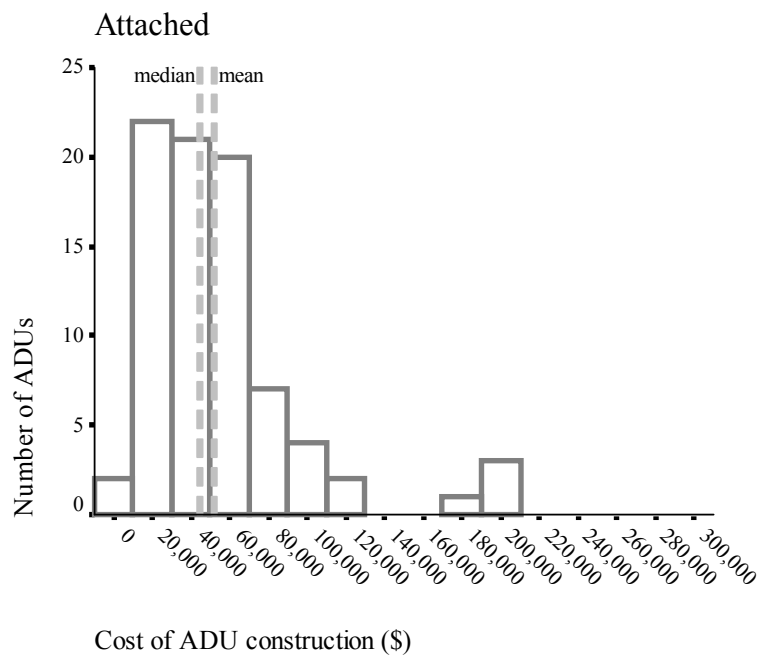
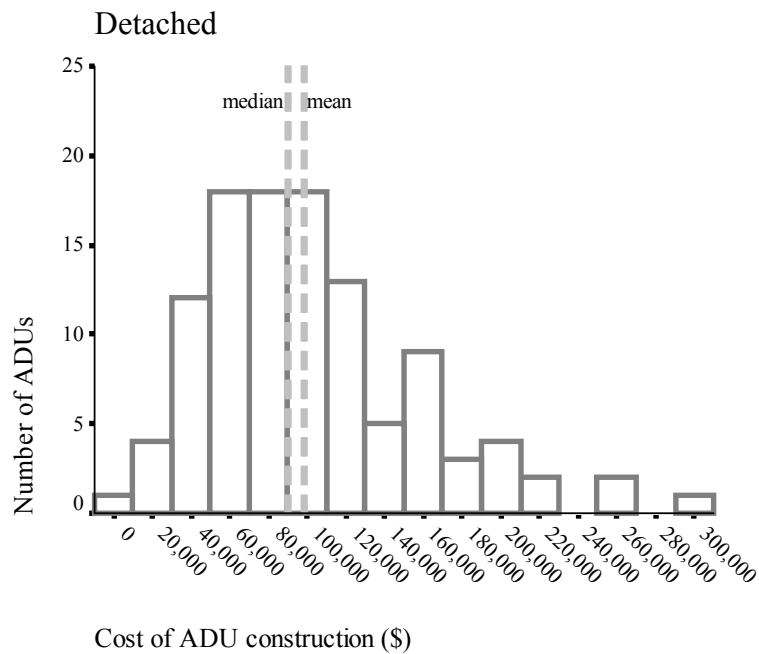
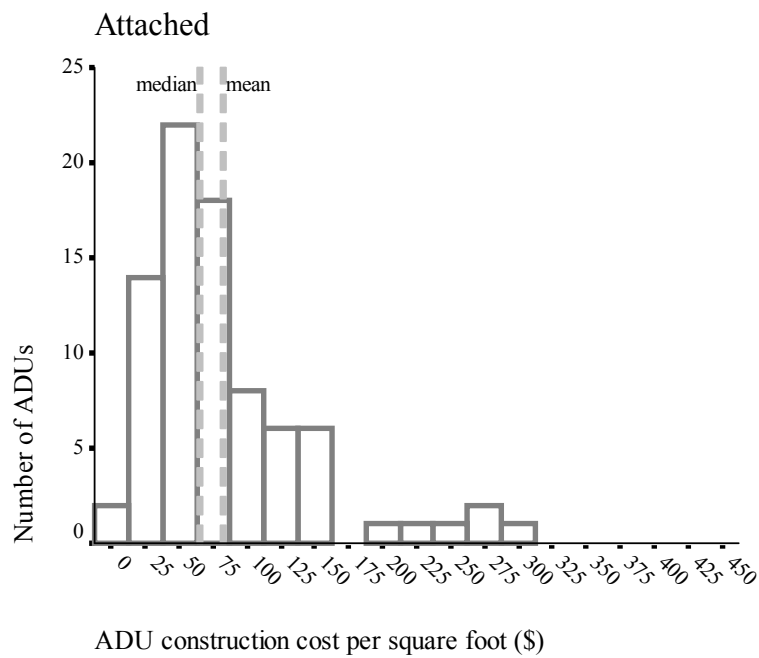
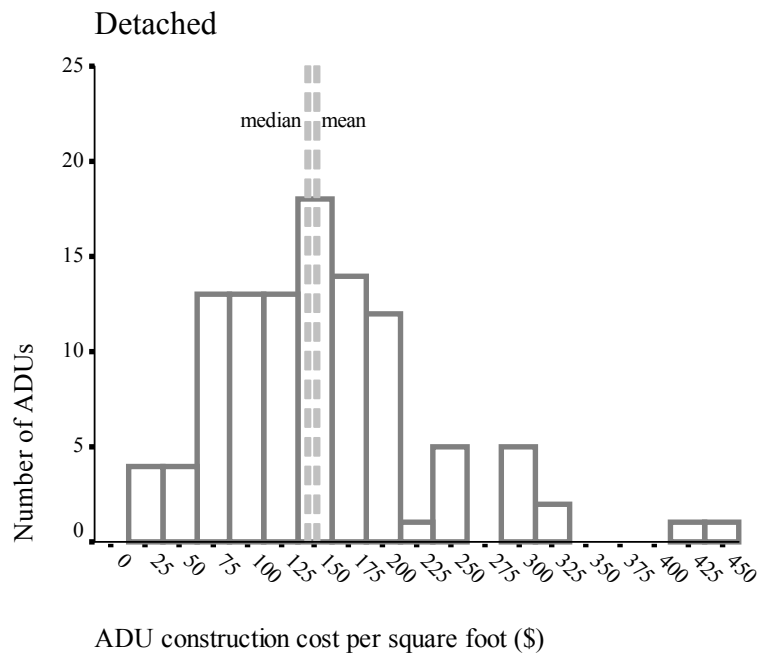


Exhibit N. Construction cost of Portland ADUs (per square foot).



Tax contribution estimation

Unlike construction costs, tax contributions continue after the first year of an ADU's existence. We would have preferred to get the ADU portion of property tax directly from the county assessor, but for various reasons (changing tax formulae and county record-keeping) this was not possible. Instead, we calculated each ADU's tax contribution from the basic formula applied by the assessor, using the respondent's reported construction cost as a key datum.

According to a duty appraiser at the Multnomah County Assessor's office (Sanders 2014), the property tax increase an SFR owner will experience when improving their property (for example, by adding an ADU) can be calculated as:

$$\text{PROPERTY TAX INCREASE} = \text{RMV} \times \text{CPR} \times \text{LEVY}$$

In this formula, RMV is the real market value of the improvement (i.e. the best estimate of what the improvement would fetch in an open market sale), in thousands; CPR is the "changed property ratio" set by the assessor; and LEVY is the amount of tax per thousand dollars of RMV which differs by exact geographic zone in the city, and is available at the assessor's web site.

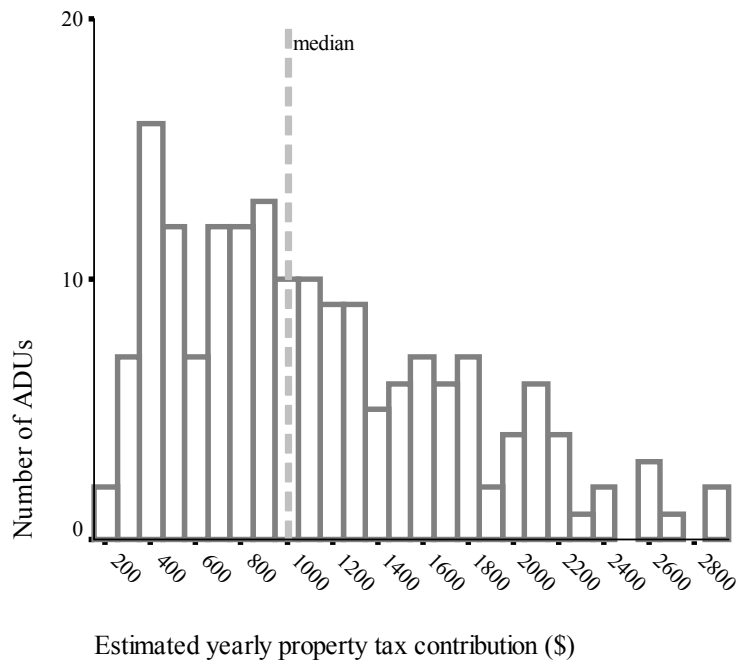
We were able to obtain LEVY for each property in the survey with a special request to the assessor's office. CPR is the same across the entire county; we used the assessor's value for the year of ADU construction. The only remaining factor is RMV, which we estimated from the construction cost reported by the ADU owner as a reasonable first approximation (Sanders 2014).

Some construction costs (Exhibit M) seemed extraordinarily high or low. We were not confident these prices would be reflected in returns in open market sales (a premise of RMV), so we eliminated from consideration properties with the top 5% and bottom 5% of ADU construction costs.

Exhibit O shows the results. Estimated yearly tax contributions per ADU ranged from \$244 to \$2927 with a mean of \$1134 and a median of \$1004. Expressed in dollars per square foot of ADU, the range is \$0.22 to \$7.69, the mean \$1.85 and the median \$1.75.

ADUs appear to be a way of delivering substantial tax dollars to the community without adding highly visible developments to neighborhoods. We cannot determine if they are more or less effective at delivering tax dollars than other forms of housing, but this could be pursued with further analysis.

Exhibit O. Estimated yearly property tax contributions from Portland ADUs, using 2013 levy rates.



Do ADUs provide affordable housing?

Background

The notion that ADUs can create affordable housing is one of the oldest and most common hopes for this form of development, appearing in most discussions of the subject. Some sources seem to assume that creation of ADUs will directly lead to affordable housing. At least one local government (Davis, California) has decided that a portion of ADUs automatically qualify as contributions towards regional affordable housing goals (Sakash 2013).

Is this assumption appropriate? It is not simple to determine. In addition to a basic lack of data, discussions of ADUs have used many definitions of "affordable." We will review a few of them here.

Government housing programs in the US usually define "affordable" with a 30% standard: housing costs that are more than 30% of income are considered burdensome (US Department of Housing and Urban Development 2014). Calculating ratios of income and housing expense, on a household or a community basis, are central to these programs. Though the policy value of the 30% standard can be critiqued (Pivo 2013), this numerical dividing line is at least clear and calculable.

Meanwhile, advocacy for ADUs often speaks of affordability in a less precise way. For example, the web site of the Puget Sound Regional Council writes, *"In expensive single family dominated areas, accessory dwelling units can also provide affordable housing choices. Most communities require an ADU to be smaller than the primary home on the property, and the smaller size can reduce the rental price of the unit. Monthly rent of the unit would likely be lower than a mortgage payment for a house in the same neighborhood... For homeowners, an ADU can be an additional source of income for property owners, offsetting the cost of home ownership."* (Puget Sound Regional Council 2014)

This quote presents two different ideas of affordability common in discourse about ADUs. First, affordability is defined from the renter's perspective, as a small dwelling that costs less to occupy than a single family residence in the same neighborhood. Second, affordability is defined from the homeowner-developer's perspective, as a property that (through income generation) lowers the cost of ownership. Neither definition specifies a magnitude of cost or savings which might meaningfully affect finances. There also is little acknowledgement that affordability for the renter and owner could conflict.⁹

Finally, the very few pieces of research which have actually looked at ADU rents have used a more pragmatic, relative assessment of affordability. They compared ADU rents to competing rentals in the same area. Wegmann & Chapple (2012, Table 9) found that ADUs in the Bay Area rented for \$250, or 19%, less per month, than non-ADU alternatives (though ADUs were smaller). Three decades ago, Rudel (1984) found that attached ADUs in Babylon, NY were 35% cheaper than apartments, and also suggested one reason was that ADUs were smaller than the competition.

For the Portland survey data, we adopt this method of comparative rents, because it is simple, descriptive, and does not require information about tenant income. We cannot address affordability from the homeowner perspective because the survey has no information about homeowner housing costs.

⁹ There are four possibilities: the presence of the ADU lowers costs for both the tenant and owner, for the tenant only, the owner only, or for neither. The homeowner-developer's situation is not automatically advantageous. ADUs require money to develop, and loans the homeowner takes might increase their housing costs and thereby the rent they charge.

Relevant survey results

Exhibit P summarizes the rents observed in Portland ADUs. The mean rent over all ADUs is \$765, the median \$800, and the maximum \$1800. Larger bedroom counts are associated with higher rents, ranging from a mean of \$674 for (0-bedroom) studios to a mean of \$1133 for (rare) 3-bedroom ADUs. Curiously, attached and detached ADUs rent for virtually identical amounts – the median is \$800 for each.

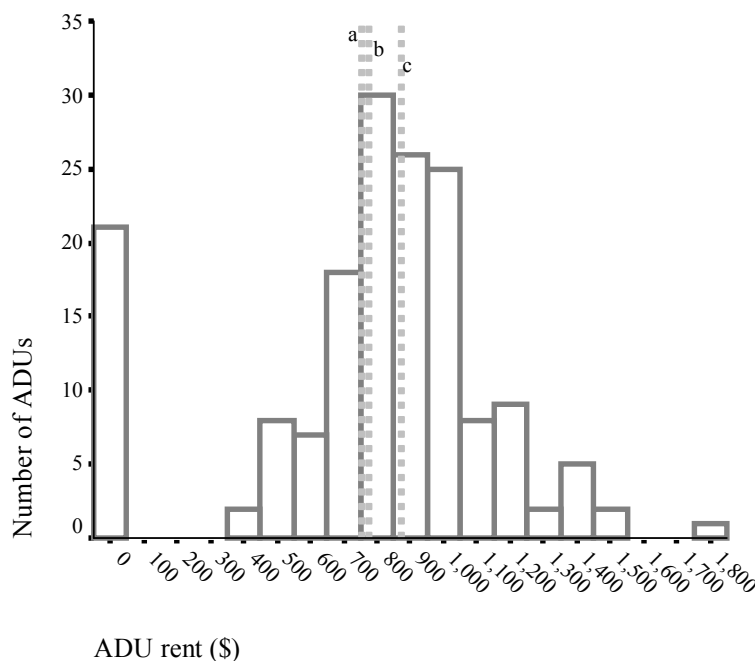
Exhibit P. Rents in Portland ADUs, with comparative.

		Detached		Attached			All	
	<i>No. bedrooms</i>	<i>ADU rent (\$)</i>	<i>ADU rent, zeros omitted (\$)</i>	<i>ADU rent (\$)</i>	<i>ADU rent, zeros omitted (\$)</i>	<i>Comparable apartment rent (\$)</i>	<i>ADU rent (\$)</i>	<i>ADU rent, zeros omitted (\$)</i>
Mean	0	698	737	646	795	651	674	761
	1	788	880	750	849	783	768	864
	2	824	1041	790	938	851	809	994
	3			1133	1133		1133	1133
	All	777	887	753	872	778	765	879
Minimum	0	0	500	0	385		0	385
	1	0	400	0	550		0	400
	2	0	500	0	775		0	500
	3			1000	1000		1000	1000
	All	0	400	0	385		0	385
Median	0	750	750	765	799	626	750	770
	1	800	838	800	800	791	800	813
	2	925	970	900	950	873	900	950
	3			1000	1000		1000	1000
	All	800	850	800	885	778	800	850
Maximum	0	950	950	1195	1195		1195	1195
	1	1500	1500	1200	1200		1500	1500
	2	1800	1800	1200	1200		1800	1800
	3			1400	1400		1400	1400
	All	1800	1800	1400	1400		1800	1800
N	0	19	18	16	13	16	35	31
	1	38	34	43	38	53	81	72
	2	24	19	19	16	24	43	35
	3			3	3		3	3
	All	81	71	81	70	93	162	141

An important pattern becomes visible when the actual distribution of rents is graphed, as in Exhibit Q. A substantial number of ADUs (13%) are occupied for zero cash rent. In addition, another 5% are occupied for $\leq \$500$ /month, extremely low rents for Portland in our experience (Brown and Watkins 2012). The remaining rents in Exhibit Q follow something like a normal curve, with a peak around the median of \$800.

Our mean of \$765 differs from the mean of \$880 reported in Survey Research Lab (2013) based on the same survey responses. This is because Survey Research Lab (2013)'s calculation does not include zero rents.

Exhibit Q. Rents in Portland ADUs, summer 2013.



Notes: Histogram represents rents for all ADUs (attached and detached). Dotted lines represent (a) mean of attached ADU rents; (b) mean of estimated rents for apartments comparable to the attached ADUs (see text for method); (c) mean rent of attached Portland ADUs when zero rents are omitted.

Perspective and hypotheses

The free and ultra-low rents are surprising, but not totally unprecedented. In the Bay Area, Wegmann & Chapple (2012) also found a large fraction of ADUs (17%) were occupied for no cash rent at all.

This is a key finding. It suggests some unique phenomenon is occurring in Adu developments. While zero-rent housing is conceivable for any housing type, professional landlords do not generally give lodgings away for free.

If ADUs are special in this way, their proportion of zero-cash-rent units should be much higher than other housing forms. Calculating from the AHS (US Census Bureau 2013b Table C-10-RO-M) shows that only

4% of all Portland rental units are occupied for zero cash rent – a significantly smaller fraction than the 13% for Portland ADUs ($p < 0.001$, binomial test).

Combining the zero- and very-low-rent units, 18% of Portland ADUs are $\leq \$500/\text{month}$, which are affordable rentals in Portland by many definitions. Not surprisingly, the survey also indicates that 85% of the tenants of these free-or-clearly-below-market rentals are family members or friends of the owner.

Considering all Portland ADUs, not just this special subset of very-low-cost rentals, are ADUs more affordable than the market competition? If they are, ADU rents should be lower than those of similarly sized and located alternatives.

There is no easily accessible rent data about single family houses in Portland, especially for tiny single family houses that would be most comparable to detached ADUs. Accordingly, we limited our formal rent comparison to attached ADUs. These seemed similar in size and configuration to apartments, for which there is a good source of rent data. Multifamily Northwest, an association of Portland-area landlords, publishes an *Apartment Report* with vacancy rates and rents specified by sector of Portland and unit size. To generate a comparable rent for each of our ADUs, we queried Multifamily NW (2013) and took the mean rent of a comparably sized (studio, 1 or 2 bedroom) apartment in the same sector of the city.

The statistical comparison of ADU and market rents depends greatly on whether the zero-cash-rent units are included in the analysis. When they are, there is no significant difference ($p > 0.5$, Wilcoxon signed ranks test) between observed ADU rents, which had a mean of \$753 for attached ADUs, and the comparable rents from the Multifamily Northwest survey, which had a mean of \$778. If the zero-cash-rent units are omitted, attached Portland ADUs have a mean rent of \$872, which is significantly higher than the Multifamily NW (2013) comparables ($p = 0.001$, Wilcoxon signed ranks test).

These numbers contrast with the experience of Wegmann & Chapple (2012), and Rudel (1984), who found that ADUs were cheaper than comparable rentals. However, there are some differences between the analyses. Both Wegmann & Chapple and Rudel noted that ADUs tended to be smaller than the rentals they used as comparables, whereas we attempted to equalize sizes as much as possible through bedroom count. In addition, Wegmann & Chapple's ADUs were often unpermitted, while all the Portland ADUs we studied were permitted.

In Portland, ADUs appear to be offering some value to renters that conventional apartments do not. We can only speculate about the motivation of renters, because they were not the survey respondents. However, location may be a factor – ADUs are dispersed within neighborhoods, while apartments tend to be on busier streets. ADUs might also provide access to private yards and other amenities usually associated with single family homes. Finally, there were pre-existing relationships: owners reported that 26% of ADU tenants were family or friends when they moved in.

Further Discussion

These results suggest ADUs are a unique resource in terms of affordable housing: a form of development that produces some undeniably economical units, which nonetheless do not fit conventional expectations of "affordable housing."

The observed ADU rents (Exhibit Q) show two kinds of rentals. About 80% of ADUs are going for market rates, or can even charge a premium. Portland ADUs are, *on average*, no more or less affordable than comparable apartments in multifamily developments.

However, 13-18% of homeowner developers have literally gone off the normal curve by voluntarily charging rents that are far below what the market shows they could receive. Units inhabited for free or $\leq \$500/\text{month}$ are affordable by many definitions, and they are being provided without any of the requirements or subsidies associated with governmental programs. As an additional point of economy, the average construction cost of a Portland ADU (\$78,760) looks considerably cheaper than the reported costs of units in institutional affordable housing (\$200,000 and above, see Korn 2014).

This "grassroots" style of affordable housing does come with a trade-off. ADUs are less regulated than institutional affordable housing. Most properties with ADUs would not be required to follow Fair Housing rules (Fair Housing Council of Suburban Philadelphia 2014), and obviously, rents of zero are very unlikely to be made available to strangers. Nonetheless, the affordability experienced by tenants of low-rent ADUs can be concrete. In our anecdotal experience, some ADUs are housing individuals that might otherwise need government assistance – for example, a grandmother on a fixed income.

One respondent to the survey commented, "This ADU has given us the opportunity to help our parents stay in their own home longer and for our family to reap the benefits of having grandparents around."

ADUs seem unlikely to be a complete solution to the need for affordable housing. But if 13-18% of ADUs are affordable merely through the owner's choice, that should be a significant community asset.

What are the barriers to ADU development?

Background

If communities want to realize the benefits of ADUs, they will presumably want to reduce obstacles to their creation. Academic and professional writing about ADUs has tended to focus on one kind of obstacle: local regulations (zoning, building requirements, etc). The premise is that loosening regulations – for example, allowing ADUs on more kinds of properties, or eliminating parking requirements – will lead to more ADU construction (Antoninetti 2008; Brinig and Gamett 2013; Hickey 2010; Stege 2009).

It is clear that regulations can be very restrictive – for example, there are communities where ADUs are technically allowed but none have been built in years (e.g. Bergerson 2014). But it seems premature to assume regulations are *always* the controlling influence, or the only barrier.

Portland should be a good place to look for other barriers, because its ADU regulations are relatively loose compared to other cities. ADUs are permissible by default on the great majority of single family properties. There is no requirement for owner occupancy of the property, and no requirement to create additional off-street parking (City of Portland 2011).

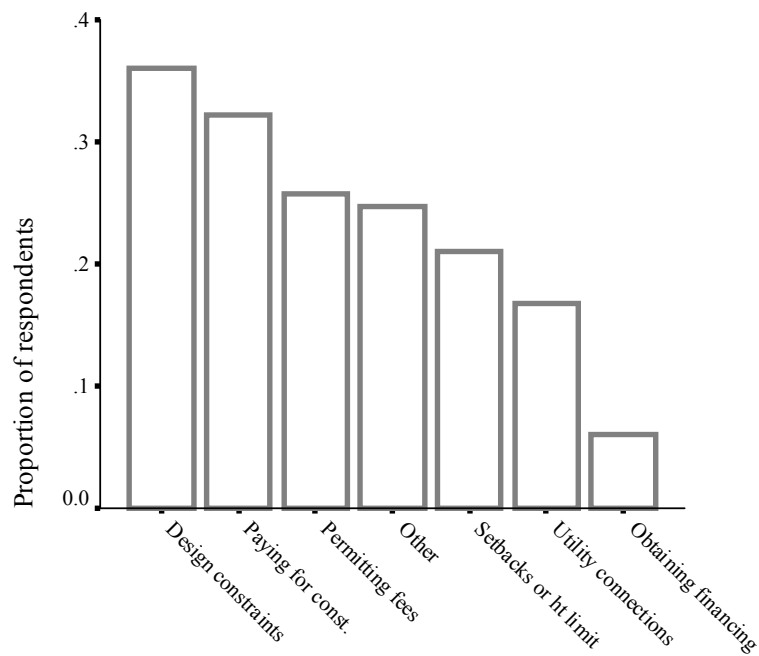
We have no hypothesis about barriers to ADU development in Portland, so we will explore the results rather than fish for hypotheses to test. Our examination of barriers is somewhat limited by the nature of the survey, which only queried people who successfully made ADUs. We have no information about the experience of people who aspired to create ADUs but did not succeed.

Relevant survey results

Exhibit R shows the responses of the homeowner-developers of Portland ADUs when asked, "What were the two biggest challenges you faced in building your ADU?" As a sort of complement, Exhibit S has responses to the question, "What was your primary reason for building the ADU?"¹⁰

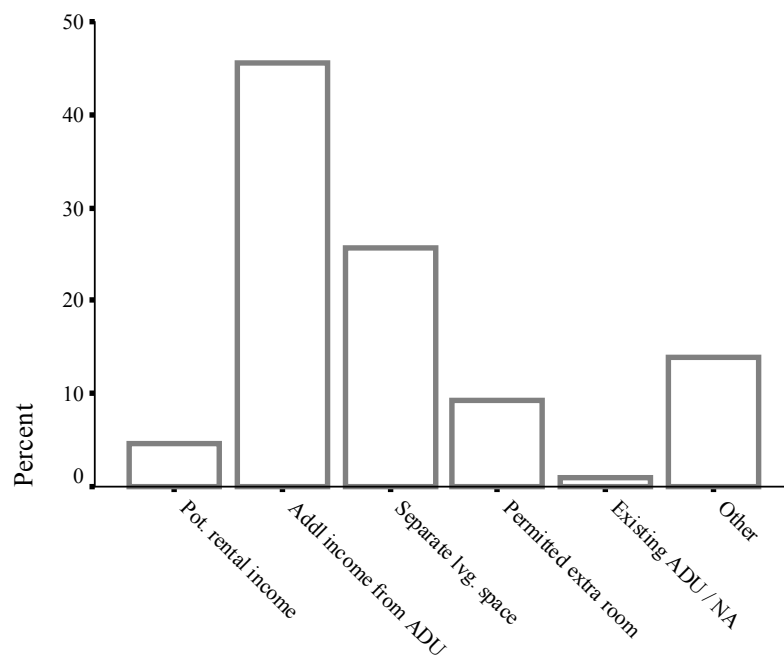
¹⁰ The full text of the question (question 24) also asked about reasons for buying a property with an existing ADU, but our results are limited to respondents who developed ADUs themselves.

Exhibit R. Challenges reported by ADU developers.



Notes: Respondents were asked, "What were the two biggest challenges you faced in building your ADU?" and allowed to pick from a list of choices. The choices have been abbreviated here -- see Survey Research Lab (2013) for full text.

Exhibit S. Motivations of Portland ADU developers.



Note: Respondents were asked about the primary reason they built an ADU. Some of the choices are abbreviated here -- see Survey Research Lab (2013) for the full text.

The single most common barrier is "Design constraints or challenges," mentioned by 36% of respondents. Typical issues here, according to comments on the survey, were meeting requirements for setbacks from property lines, and making the exterior of the ADU match the primary dwelling in appearance.

However, a closer look at the results suggests the biggest barrier is financial. The survey allowed respondents to name two challenges from a list. Three items on the list were related to money ("paying for construction," "permitting fees," and "obtaining financing"), and at least one of them is mentioned by 56% of respondents.

The financial theme is reflected in the timeline of ADU permits issued by the City of Portland. After the city waived systems development charges (SDCs, frequently \$8,000 or more per unit) and increased allowable sizes for ADUs, permit applications increased dramatically (Palmeri 2014). Several survey comments specifically mentioned the SDC waiver.

Money is also prominent in the survey question about motivations. (For this question, only one choice was allowed per respondent.) The biggest single motivation was "Income from ADU rent" (46% of respondents), followed by "Separate living space for family member or helper" (26%).

Given that money is both a motivation and a challenge, it seems relevant to look at how Portland homeowner-developers paid for their ADUs. Respondents were allowed to give multiple responses to the survey question on this subject. Exhibit T shows that "cash" was the most frequently used option, mentioned by 62% of respondents, followed by a home equity line of credit (HELOC, 29%), and loan from family (13%). Respondents reported using up to 5 simultaneous financing methods, with an average of 1.5 methods. Of those who used only one financing method, cash again led the responses (52% of those respondents), followed by HELOC (17%).

Exhibit T. Financing methods used by Portland developers of ADUs.

	Percent of respondents
Paid with cash	62
Paid with home equity line of credit	29
Paid with cash-out refinancing based on main home value	12
Paid with cash-out refinancing based on future value of home and ADU	1
Purchased primary home and constructed ADU with cash out option based on future value	0
Paid with loan from family	13
Paid with credit card(s)	11
Paid with construction loan from bank	2
Paid with personal loan from bank	5
Paid with trade of services	4
Paid with other method	10

Note: respondents could choose more than one answer.

The frequent use of cash suggests several possible explanations, none of which are necessarily exclusive. First, bank financing opportunities are probably limited (Bjork 2011; Brown and Watkins 2012). Second, given that ADUs are expensive (\$78,760 on average), homeowner-developers of ADUs might simply have or make more money than other Portland homeowners. The frequent use of multiple financing

methods could indicate high motivation on the part of homeowner-developers, who might need to creatively assemble financing rather than simply purchasing a single bank product.

We would like to test the notion that homeowner-developers have higher incomes than other homeowners, but unfortunately the survey data makes testing difficult. The survey contains a question about household income, but its categories do not match well with the income categories in the AHS file about Portland homeowners. The best comparison we can make¹¹ suggests that, before their ADUs were created, Portland's homeowner-developers were very similar in income to other Portland homeowners.

While we cannot objectively test the notion that ADU developers are strongly motivated, the survey suggests that strong motivation can be necessary to complete an ADU project. On the survey question about challenges to development, more than a quarter of respondents chose the "Other" category (Exhibit R) and wrote in difficulties not expressed by the survey's suggested options.

Though the comments ranged widely, the clearest theme of the write-ins was interaction with building officials and inspectors, who were seen as inconsistent or arbitrary. The biggest challenge was "never getting the same answer twice while applying for permits," wrote one respondent. "We received conflicting advice from people within the permitting office," wrote another. "Inspector from BDS made up nonexistent rules," wrote another.

In the case of these respondents, the projects were completed despite financial challenges and the frustrations with city staff. The survey can't tell if lack of money or such frustrations stopped other projects before they were completed, but it seems a reasonable possibility.

If local governments want to encourage ADU development, they may need to recognize that there are barriers besides regulations and codes. They may want to encourage bank financing, and they might want to create an easier process for the ADU developers – who tend to be homeowners, not real estate or construction specialists. For many of them, building an ADU is a major project, one that involves taking on financial risk and working through an unfamiliar process.

One respondent wrote, "the economy largely prompted our decision to convert the garage into an ADU. My partner was laid off from an architecture job, and we anticipated a long stretch of unemployment... Also our home had lost value so we were unable to sell it after several months on the market. It was a big risk at the time to build the ADU but it has been well worth it. We now have a child and the rental income has allowed us to get by as a single income earning family, so one of us can stay home full time with our child."

¹¹ The comparison: The median, or 50th percentile, household income of Portland's homeowner-developers of ADUs is around \$77,000. This follows from the survey result that 48% of respondents have an income of <\$75,000, while the remaining 52% have incomes of >=\$75,000. The median household income for all Portland homeowners, according to the AHS (US Census Bureau 2013b), is \$70,000. However, homeowner-developer income includes rent. The average homeowner-developer with an ADU reports receiving \$758/month, or \$9096/yr, in rent. Removing the rent from the estimated median income (\$77,000-\$9000=\$68,000) produces an income very similar to Portland homeowner household median of \$70,000.

Conclusions and directions for further research

This tour through issues and questions associated with ADUs suggests that, in Portland, ADUs are providing many of the benefits long claimed for them. This study finds, that, in Portland:

- ADUs provide housing;
- ADU housing is desirable to renters;
- ADUs generally have owners living on the property;
- ADUs support the local economy with construction work and property taxes;
- A portion of ADUs are highly affordable rentals;
- ADUs are likely to have a low environmental impact compared to standard single-family residences.
- ADUs have had little effect on parking conditions on a city wide basis.
- ADUs do not currently house a notably high proportion of older people (55+), nor are ADU owners particularly likely to be older people. However, as current owners age this may change.
- The most common motivations of homeowners who develop ADUs are financial and family-related.
- The most common barriers to ADU development are finances and design constraints.

Any of these findings could be improved and refined with better methods. In particular, our technique of using published averages and medians as "control" or "comparative" parameters could be replaced with full research designs. For example, the affordability of ADU rents compared to other forms of housing could be studied with a formal, appraisal-style rent survey, where each ADU of interest would be assigned a comparable non-ADU rent based on the ADU's particular features.

Such studies would produce more convincing results, but they would inevitably consume more time and resources. Several lines of investigation seem worth the extra effort:

- *Environmental impact of new dwellings.* Our analysis of living area per person suggests ADUs are potentially a powerful way of reducing the environmental impact of new housing – given that detached ADUs have a median size that is 56% smaller and a median living area per person that is 44% smaller than new SFRs. However, no information on living area per person was available to us for another important development option – multifamily housing (i.e. apartment buildings). A future study might compare ADU living area per person with apartments, and translate those dwellings' characteristics into actual metrics of environmental footprint. Attached ADUs, by virtue of their shared walls, might have high potential for environmental benefits through reduced material and energy use.
- *Barriers to ADU development.* For those who want to encourage ADUs, a more concerted effort could be made to identify barriers to development. In particular, it would be useful to locate homeowners who wanted to create ADUs, but did not succeed or follow through, and to compare their experience with those who did succeed.
- *Volunteer production of affordable housing.* The finding that 18% of ADUs have free or very cheap rents – even while owners list financial gain as their single biggest motivation – is extremely interesting. Affordable housing is a widely acknowledged need in communities across the country, and ADUs appear to be producing a quantity of it outside of formal channels of government subsidy and regulation. What is happening in the ADUs that have zero or very low

rents? Who lives there, and what is the motivation of the owner? A study that takes a special, detailed look at the finances of both ADU tenants and owners might help policymakers cultivate a volunteer surge in affordable housing.

The production of “volunteer” affordable housing is an example of one of the more fascinating qualities of ADUs. ADUs are unusual developments in that they are largely “grassroots” and “nonprofessional” in the way they are created and used. They are not generally created by full-time developers, nor subsidized greatly by government agencies. ADU developers are mostly homeowners with personal financial and family goals. Curiously, these owners do not always choose to maximize their returns in a business sense. Some charge little or no rent even when market rents are easily obtainable; some spend significantly on green features; some house older relatives. In short, ADUs provide some community benefits even as owners pursue their own personal interests. Of all the positive features long imagined for ADU developments, this may be the most encouraging.

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ABOVE-GARAGE ADU



DETACHED-BEDROOM ADU



DETACHED ADU

- An accessory dwelling unit is a small residence that shares a single-family lot with a larger primary dwelling.
- As an independent living space, an ADU is self-contained, with its own kitchen or kitchenette, bathroom and living/sleeping area. (Garage apartments and backyard cottages are each a type of ADU.)
- ADUs can enable homeowners to provide needed housing for their parents, adult children, grandchildren or other loved ones.
- An ADU can provide older adults a way to downsize on their own property while a tenant or family member resides in the larger house.
- Since homeowners can legally rent out an ADU house or apartment, ADUs are an often-essential income source.
- ADUs help to improve housing affordability and diversify a community's housing stock without changing the physical character of a neighborhood.
- ADUs are a beneficial — and needed — housing option for people of all ages.

Learn more about ADUs and
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The ABCs of ADUs
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The ABCs of ADUs

A guide to
Accessory Dwelling Units
and how they expand housing options
for people of all ages



BASEMENT ADU



DETACHED ADU



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AARP is the nation’s largest nonprofit, nonpartisan organization dedicated to empowering people 50 or older to choose how they live as they age. With nearly 38 million members and offices in every state, the District of Columbia, Puerto Rico and the U.S. Virgin Islands, AARP strengthens communities and advocates for what matters most to families: health security, financial stability and personal fulfillment. The AARP Livable Communities initiative works nationwide to support the efforts by neighborhoods, towns, cities, counties, rural areas and entire states to be livable for people of all ages.



Website: [OrangeSplot.net](https://www.angesplot.net)
Email: eli@OrangeSplot.net

Orange Splot LLC is a development, general contracting and consulting company with a mission to pioneer new models of community-oriented, affordable green housing developments. Orange Splot projects have been featured in the *New York Times*, *Sunset Magazine* and on NBC’s *Today* show. (The detached ADUs on page 3 and the back cover are by Orange Splot.) Company founder Eli Spevak has managed the financing and construction of more than 250 units of affordable housing, was awarded a Loeb Fellowship by the Harvard University Graduate School of Design, cofounded the website [AccessoryDwellings.org](https://www.AccessoryDwellings.org) and serves as a vice chair of Portland, Oregon’s Planning and Sustainability Commission.

The ABCs of ADUs

A guide to Accessory Dwelling Units and how they expand housing options for people of all ages

WRITTEN AND EDITED BY: Eli Spevak, Orange Splot LLC | Melissa Stanton, AARP Livable Communities
ART DIRECTOR: Mimi Park, Design Park, Inc.
COPY EDITOR: Don Armstrong | **ART PRODUCTION:** Steve Walkowiak

PROJECT ADVISERS AND REVIEWERS:

Danielle Arigoni, Director, AARP Livable Communities
Karen Chapple, Professor, University of California, Berkeley
Lina Menard, Founder, Niche Consulting
Heather Peters, Senior Housing and Community Development Policy Analyst, San Mateo County, California
Kol Peterson, Cofounder, [AccessoryDwellings.org](https://www.AccessoryDwellings.org) | Caravan: The Tiny House Hotel | ADU Tour: Portland, Oregon
Denise Pinkston, Partner, TMG Partners
Harriet Tregoning, past Principal Deputy Assistant Secretary, U.S. Housing and Urban Development
Jake Wegmann, Assistant Professor, University of Texas at Austin

COVER IMAGE CREDITS (clockwise from top left)

Front: Communitecture: Architecture, Planning, Design | Alex Hayden | [AccessoryDwellings.org](https://www.AccessoryDwellings.org) | [AccessoryDwellings.org](https://www.AccessoryDwellings.org) | Melissa Stanton, AARP
Back: Kol Peterson, [BuildingAnADU.com](https://www.BuildingAnADU.com) | Eli Spevak, Orange Splot LLC | Schuyler Smith, Polyphon Architecture & Design, LLC

A NOTE TO READERS: Many of the photographs and project examples in this publication are from Portland, Oregon, one of the first municipalities in the nation to encourage the creation of accessory dwelling units.

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Visit [AARP.org/ADU](https://www.aarp.org/ADU) to download or order this free guide and find more resources about accessory dwelling units.

Welcome! Come On In

AARP surveys consistently show that the vast majority of people age 50 or over want to remain in their homes and communities as they age rather than relocate

We know from surveys by AARP and others that a majority of Americans prefer to live in walkable neighborhoods that offer a mix of housing and transportation options and are close to jobs, schools, shopping, entertainment and parks.

These preferences — coupled with the rapid aging of the United States’ population overall and decrease in households with children — will continue to boost the demand for smaller homes in more compact neighborhoods.

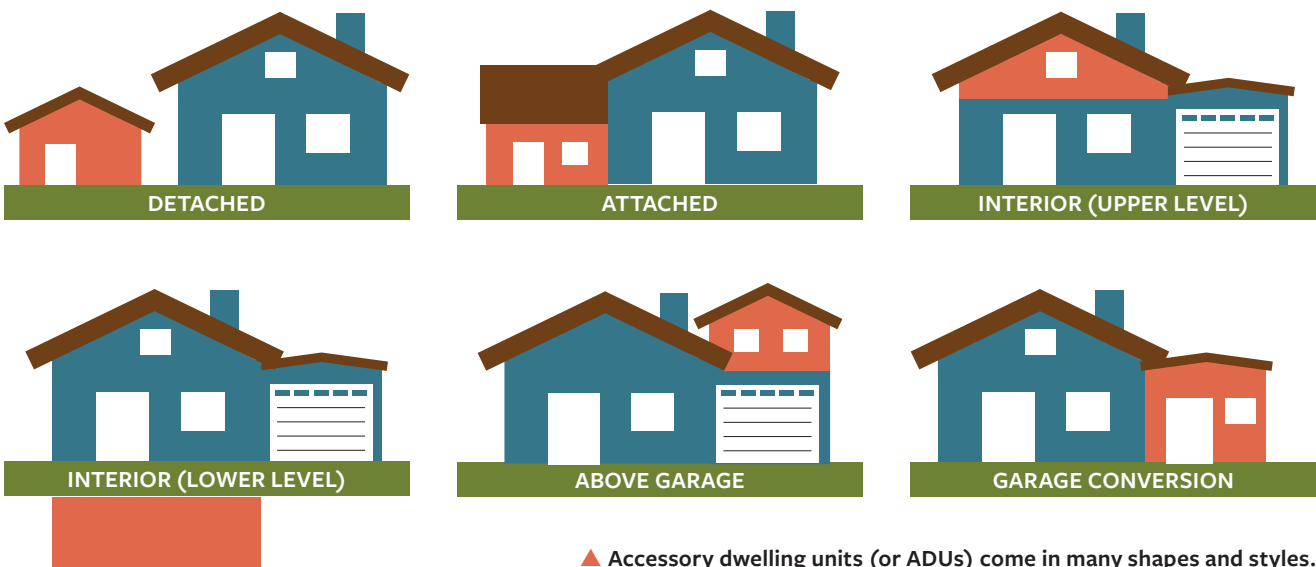
As small houses or apartments that exist on the same property lot as a single-family residence, accessory dwelling units — or ADUs — play a major role in serving a national housing need.

This traditional home type is reemerging as an affordable and flexible housing option that meets the needs of older adults and young families alike.

In fact, in the 2018 AARP Home and Community Preferences Survey, people age 50-plus who would consider creating an ADU said they’d do so in order to:

- provide a home for a loved one in need of care (84%)
- provide housing for relatives or friends (83%)
- feel safer by having someone living nearby (64%)
- have a space for guests (69%)
- increase the value of their home (67%)
- create a place for a caregiver to stay (60%)
- earn extra income from renting to a tenant (53%)

Since ADUs make use of the existing infrastructure and housing stock, they’re also environmentally friendly and respectful of a neighborhood’s pace and style. An increasing number of towns, cities, counties and even states have been adapting their zoning or housing laws to make it easier for homeowners to create ADUs.



The ABCs of ADUs is a primer for elected officials, policymakers, local leaders, homeowners, consumers and others to learn what accessory dwelling units are and how and why they are built. The guide also suggests best practices for how towns, cities, counties and states can include ADUs in their mix of housing options.

ADUs Come in Many Shapes and Styles

ADUs are a family-friendly, community-creating type of housing the nation needs more of

Although many people have never heard the term, accessory dwelling units have been around for centuries (see page 6) and are identified by many different names. To be clear about what’s being discussed:

- An ADU is a small residence that shares a single-family lot with a larger, primary dwelling
- As an independent living space, an ADU is self-contained, with its own kitchen or kitchenette, bathroom and sleeping area
- An ADU can be located within, attached to or detached from the main residence
- An ADU can be converted from an existing structure (such as a garage) or built anew
- ADUs can be found in cities, in suburbs and in rural areas, yet are often invisible from view because they’re positioned behind or are indistinct from the main house
- Because ADUs are built on single-family lots as a secondary dwelling, they typically cannot be partitioned off to be sold separately
- An ADU can provide rental income to homeowners and an affordable way for renters to live in single-family neighborhoods
- An ADU can enable family members to live on the same property while having their own living spaces — or provide housing for a hired caregiver
- Unlike tiny houses (see page 17), ADUs are compact but not teeny, so they’re a more practical option for individuals, couples and families seeking small, affordable housing
- For homeowners looking to downsize, an ADU can be a more appealing option than moving into an apartment or, if older, an age-restricted community
- ADUs can help older residents remain in their community and “age in place”



▲ Accessory dwelling units show up in neighborhoods throughout the country — and even in pop culture. One example: In the sitcom *Happy Days*, Fonzie (right) rented an above-garage ADU from the Cunningham family in 1950s-era Milwaukee, Wisconsin.

CREATIVE COMMONS

ADUs are also known as ...

Although most local governments, zoning codes and planners in the United States use the term *accessory dwelling unit* or *ADU*, these small homes and apartments are known by dozens of other names. The different terms conjure up different images. (Who wouldn’t rather live in a “carriage house” than in an accessory or “ancillary” unit?) Even if you’ve never heard of accessory dwelling units or ADUs, you have likely heard of — and perhaps know the locations of — some of the home types noted at right.



▲ Renting out this 350-square-foot garage-conversion ADU in Portland, Oregon, helps the property owner, who lives in the lot’s primary residence, pay her home mortgage.

- accessory apartment
- alley flat
- back house
- backyard bungalow
- basement apartment
- carriage house
- coach house
- garage apartment
- granny flat
- guest house or cottage
- in-law suite
- laneway house
- mother-daughter house
- multigenerational house
- ohana unit
- secondary dwelling unit
- sidekick

PHOTO AND LIST FROM ACCESSORYDWELLINGS.ORG

Since ADUs can be created in many different shapes and styles, they’re able to fit discreetly into all sorts of communities, including suburban subdivisions, row-house streets (either with or without back-alleys), walkable town or urban neighborhoods — and, of course, large lots and rural regions.



◀ A **DETACHED ADU** (aka DADU) is a stand-alone home on the same lot as a larger, primary dwelling. Examples include backyard bungalows and converted outbuildings.

Location: Portland, Oregon | Photo by David Todd



▶ An **ATTACHED ADU** connects to an existing house, typically through the construction of an addition along the home’s side or rear. Such units can have a separate or shared entrance.

Location: Davidsonville, Maryland | Photo by Melissa Stanton, AARP



◀ A **GARAGE ADU** makes use of an attached or detached garage by converting the space into a residence. Other options involve adding a second-story ADU above a garage or building a new structure for both people and cars.

Location: Portland, Oregon | Photo by Radcliffe Dacanay

An **INTERNAL ADU** is created when a portion of an existing home — an entire floor, part of a floor, or an attic or basement — is partitioned off and renovated to become a separate residence.

▶ Access to an **UPPER-LEVEL ADU** can be provided through a stairway inside the main home or directly from an exterior staircase. This 500-square-foot ADU sits atop a 1,900-square-foot primary dwelling.

Location: Portland, Oregon | Photo by Eli Spevak, Orange Splot LLC



▲ A **LOWER-LEVEL ADU** is typically created through the conversion of a home’s existing basement (provided that height and safety conditions can be met), during construction of the house, or (see page 7) as part of a foundation replacement and house lift.

Location: Portland, Oregon | Photo by Derin Williams

ADUs Are Good for People and Places

Communities that understand the benefits of ADUs allow homeowners to create them

ADUs are an affordable housing option

- ADUs can generate rental income to help homeowners cover mortgage payments or simply make ends meet. The income provided by an ADU tenant can be especially important for older people on fixed incomes.
- Since the land on which an ADU is built already belongs to the homeowner, the expense to build a secondary residence is for the new structure only. The lot is, in a sense, free.
- ADUs are typically owned and managed by homeowners who live on the premises. Such landlords are less likely to raise the rent once a valued tenant has moved in. Many ADUs are created for family members to reside in for free or at a discounted rate.
- Although market rate rents for ADUs tend to be slightly more than for similarly sized apartments, they often represent the *only* affordable rental choices in single-family neighborhoods, which typically contain no studio or one-bedroom housing options at all.
- Some municipalities are boosting ADUs as part of affordable housing and anti-displacement strategies. Santa Cruz, California (see opposite), is among the cities with programs to help lower-income households build ADUs or reside in them at reliably affordable rents.

ADUs are able to house people of all ages

- An individual’s housing needs change over time, and an ADU’s use can be adapted for different household types, income levels, employment situations and stages of life.
- ADUs offer young people entry-level housing choices.
- ADUs enable families to expand beyond their primary home.
- ADUs provide empty nesters and others with the option of moving into a smaller space while renting out their larger house or letting an adult child and his or her family reside in it.

ADUs are just the right size

- Generally measuring between 600 and 1,000 square feet, ADUs work well for the one- and two-bedroom homes needed by today’s smaller, childless households, which now account for nearly two-thirds of all households in the United States.

Big houses are being built, small houses are needed

Do we really need more than three times as much living space per person as we did in 1950? Can we afford to buy or rent, heat, cool and care for such large homes?

YEAR	1950	2017
Average square footage of new single-family homes	983	2,571
Number of people per household	3.8	2.5
Square feet of living space per person	292	1,012

Fact: ADUs house more people per square foot of living area than single-family homes do.

ADUs are good for the environment

- ADUs require fewer resources to build and maintain than full-sized homes.
- ADUs use significantly less energy for heating and cooling. (Of all the ADU types, internal ones tend to have the lowest building and operating costs.)

ADUs are community-compatible

- ADUs offer a way to include smaller, relatively affordable homes in established neighborhoods with minimal visual impact and without adding to an area’s sprawl.
- ADUs provide a more dispersed and incremental way of adding homes to a neighborhood than other options, such as multistory apartment buildings. As a result, it’s often easier to get community support for ADUs than for other housing types.

SOURCE: NATIONAL ASSOCIATION OF HOME BUILDERS (AVERAGE HOME SIZES), U.S. CENSUS BUREAU (AVERAGE HOUSEHOLD SIZES)

HOME VISIT #1 Attached ADU Addition

Santa Cruz, California
Size: 500 square feet



▲ The area with the darker roof shingles is the ADU that was added onto the home of Carrie and Sterling Whitley.
◀▶ The Whitleys’ ADU (that’s Carrie showing off the front yard’s new paths and plantings) has its own entrance on the side of the home and is being rented to the couple’s daughter so she can help her elderly parents when needed.

When Carrie and Sterling Whitley bought their house in 1971, they paid less than \$15,000. Nearly 50 years later, similar homes on their street have sold for more than \$1 million.

THE PROBLEM: The Whitleys, who are in their 80s, own the house outright and don’t want to move. But the financial and physical demands involved in maintaining the house are a challenge.

A SOLUTION: To help low-income homeowners age 62 or older live independently and keep their homes, the Monterey Bay affiliate of Habitat for Humanity and the City of Santa Cruz launched My House My Home: A Partnership for Aging-in-Place. The pilot program builds accessory dwelling units so older homeowners can downsize into a new, aging-friendlier home and earn rental income from their original house. Or such homeowners can remain in their house and rent out the new, smaller residence. Participating homeowners are required to charge an affordable rental rate.

REALITY CHECK: When the Whitleys’ project broke ground in April 2017, they were the first homeowners to receive an ADU through the program, which worked with them to design the ADU as an addition to their existing home. Since the dwelling was built with accessibility features, Carrie and Sterling know they can downsize into it if they ever need to. Until then, their daughter, Brenda, resides in the addition.

REAL LIFE: “I’m right next door to my parents in case they need me or need any help,” Brenda says.

Design: Historic Sheds | Builder: Historic Sheds | Cost to build: \$158,000 in 2017 (not including volunteer labor) | Photos by Michael Daniel | Article adapted from Where We Live: Communities for All Ages (AARP 2018)



ADU ADVICE: With an attached ADU, privacy between the two residences can be achieved by locating the ADU bedroom(s) and bathroom(s) as far as possible from the main house. Providing the ADU with its own yard or outdoor space is helpful too.

ADUs Are an American Tradition

While today’s interest in ADUs may be new, the housing type is centuries old

Early settlers often built a small home to live in while constructing their larger, primary house nearby.

When farming was a source of survival for most of the nation’s households, families routinely constructed additional homes on their land when needed.

People with wealth and acreage regularly populated their lands with secondary mansions and ancillary buildings independent of the main estate house.

In fact, until the 20th century, people with land built as many homes as they wished. There were few or no zoning rules, municipal services or infrastructure (utilities, roads, schools, trash collection, first-responders) to consider.

A historic precedent for the modern day accessory dwelling unit is the “carriage house,” or “coach house.” Originally built for horse-drawn carriages, the structures associated with grander homes were frequently large enough to double as living quarters for workers and stable hands.

Decades later, in response to housing shortages and economic needs, many surviving carriage houses were

▼ This carriage house containing a one-bedroom, one-bath ADU above a two-car garage sits behind a six-level, Gilded Age, Hoboken, New Jersey, townhome that was built in 1883. The dual residence property was on the market in 2018 for \$5 million.



converted into rental homes. By becoming landlords, the owners gained income from their otherwise unused outbuildings.

Automobile garages have a similar history. Some were originally built with a housing unit upstairs. Over time, many garages were converted (often illegally or under zoning codes no longer applicable today) into small homes when the spaces became more valuable for housing people than vehicles.

With the rise of suburban single-family home developments following World War II, ADUs practically ceased to be built legally in the United States. Then as now, residential zoning codes typically allowed only one home per lot, regardless of the acreage and with no exceptions. Attached and detached garages occupied yard space that might otherwise have been available for ADUs.

Some cities, including Chicago, grandfathered in pre-existing ADUs — but only if the residences remained consistently occupied. In Houston’s historic and trendy Heights neighborhood, old and new garage apartments are common and desired.

But elsewhere, even in rural areas with ample land, property owners are often prohibited from creating secondary dwellings. Many communities today don’t allow new ADUs, even if they did in the past — and even if ADUs currently exist there. (Countless units in single-family homes or yards are technically illegal or are allowed simply because they were created when such residences had been legal.)

ADUs began making a comeback in the 1980s as cities explored ways to support smaller and more affordable housing options within single-dwelling neighborhoods. In 2000, in response to a growing demand for ADU-supportive guidelines, AARP and the American Planning Association partnered to release an influential model state act and local code for ADUs.

More recently, there’s been renewed interest at the state and local levels (see page 8) in legalizing and encouraging the creation of ADUs, driven by the increasingly high cost of housing and, in some places, the belief that homeowners with suitable space shouldn’t be so restricted in the use of their property.

HOME VISIT #2 Garage Apartment ADU Denver, Colorado Size: 360 square feet



▲ The apartment above the garage can be reached from inside the garage or from an exterior side entrance accessed from the yard it shares with the primary residence.

“I see our ADU as something very similar to a student loan,” says Mara Owen. “It’s something you invest in the future with. It was cheaper than buying a house for Mom, and it lets her have independence. It’s great knowing we can check in on her whenever.”

AH-HA MOMENT: Owen, her partner, Andrew, and their three dogs were sharing a one-bedroom, one-bath house with her mother, Diane. When Owen learned that ADUs were allowed in the city, she decided the best way to get more space for her small home’s many residents would be to remove their “leaky and defunct” garage and build a new two-car garage with an apartment above it.

WISE ADVICE: “Get a really great builder and architect,” says Owen. “Interviewing architects was similar to a first date. It’s not just who you feel connected with. That’s important, but get to the values. It’s a niche market, so see if you can find someone who has built ADUs before, because ADUs are a little different.”

FUTURE PLANS: The stairs to Diane’s apartment are wide enough for a stair lift, if it’s ever needed. The roof was built at the correct slope for the eventual installation of solar panels.

Design: Hive Architecture | Builder: Hive Architecture | Cost to build: \$167,000 in 2016 | Photo by Mara Owen | Article adapted from “ADU Case Studies” by Lina Menard on AccessoryDwellings.org. Visit the website to read about and see photographs of more ADU projects.

HOME VISIT #3 Basement ADU Portland, Oregon Size: 796 square feet

The transformation of this colorful Victorian was both a preservation and expansion project.

TEACHING MOMENT: “Here’s a very welcome breath of fresh air, especially in the face of so much gentrification that is going on in Portland!” declared Mark Lakeman, principal of Communitecture, an architectural, planning and design firm, about the pictured remodel. Writing on his company’s website, he says the project provides a lesson in how to “adapt and reuse our precious historic houses so they can accommodate more people while also providing more income to support the existing home.”

HOW’D THEY DO IT? To add a basement rental unit, engineers lifted the house. The resulting ADU is roughly four feet underground and four feet above.



▲ By lifting the house and digging beneath it, designers, engineers and builders turned a two-story, single-family home into a three-story, multifamily residence.

THE ACHIEVEMENT: Adds Lakeman: “Unlike the seemingly pervasive method of simply tearing down existing buildings so that new, giant ones can be built, this approach achieves upgrades in energy efficient living places and adds density while retaining the continuity of our beloved historical urban environment.”

Design: Communitecture | Home Lift: Emmert International | Builder: Tom Champion | Cost to build: \$125,000 in 2015 | Photos by Communitecture (before) and Chris Nascimento (after)

PHOTO BY MIMI PARK, DESIGN PARK, INC.

The Time Is Now

Rules for ADUs continue to evolve and frequently differ from one town to the next

Some communities allow almost any home to be set up with an ADU — so long as size limits, property line setbacks and placement caveats in relation to the primary dwelling are met.

Other communities start with those basic standards and then layer on extra requirements (see page 14) that can make it challenging to create an ADU.

Municipalities nationwide have been relaxing their restrictions against ADUs, and some states have been encouraging their creation by requiring communities to allow them.

- In 2017, California required all of its cities and counties to allow ADUs so long as the property owner secured a building permit. In Los Angeles, Mayor Eric Garcetti has said ADUs could provide the city with a needed 10,000 housing units. He’s touted ADUs as a “way for homeowners to play a big part in expanding our city’s housing stock and make some extra money while they’re at it.”
- That same year, a New Hampshire law established that local zoning codes had to allow ADUs nearly everywhere single-family housing was permitted. The change stemmed in large part from the frustration of builders who couldn’t construct the type of amenities, such as backyard cottages and garage apartments, that their clients desired.
- Oregon requires cities and counties of certain sizes within urban growth boundaries to allow ADUs in all single-family neighborhoods.
- As of 2019, major cities that allow ADUs include Anchorage, Alaska; Atlanta, Georgia; Austin, Texas; Denver, Colorado; Honolulu, Hawaii; Houston, Texas; Philadelphia, Pennsylvania; Phoenix, Arizona; Seattle, Washington; and Washington, D.C. Communities in Massachusetts, Kentucky, Illinois, Indiana and Oregon have sought advice from AARP and Orange Splot about revising their zoning codes to allow ADUs.

► The unique floor plan of this single-family Maryland farmhouse allows for a first floor residence (accessed through the door on the right) and an upper-level ADU that can be reached through the entrance at left.

To Encourage ADUs

LOCAL OFFICIALS can ...

- allow all ADU types (detached, attached, interior)
- simplify the building permit process for ADUs
- waive or reduce permit and impact fees
- let garages be converted into ADUs without requiring replacement off-street parking
- allow a second ADU if one of the homes on the property meets accessibility standards

COMMUNITY PLANNERS can ...

- adopt simple, flexible but nondiscretionary ADU rules about setbacks, square footage and design compatibility with the primary dwelling

LENDERS can ...

- work with homeowners to finance the construction of ADUs by using renovation loans

ADVOCATES can ...

- organize tours of completed ADUs in order to inform and inspire the community
- educate homeowners, real estate agents, architects and builders about local zoning regulations and the permit process

REAL ESTATE AGENTS can ...

- educate themselves and their clients about rules for the construction of ADUs

LOCAL MEDIA can ...

- report on how and why homeowners build ADUs



PHOTO BY MELISSA STANTON, AARP

HOME VISIT #4 Internal ADU (Main Level)

Portland, Oregon
Size: 220 square feet

Even small homes can have enough space for an ADU. An underused main floor bedroom in this 1.5-story, 1,500-square-foot bungalow was transformed into a studio apartment.

AH-HA MOMENT: According to Joan Grimm, who owns the home with Rita Haberman: “What we were looking for in terms of a community and aging in place was right under our noses. Remove a fence and create a shared open space. Build a wall and create a second dwelling unit. It doesn’t have to be complicated.”

REAL LIFE: “Creatively carving out an ADU from the main floor of our house saved on design and construction costs,” Grimm adds. “It provides an opportunity for rental income, with no significant compromise to the livability of our home.”

Design: Rita Haberman | Builder: RS Wallace Construction | Cost to build: \$55,000 in 2015 (with some work done by the homeowners)
Photos courtesy Billy Ulmer | Article adapted from “ADU Case Studies” by Lina Menard on AccessoryDwellings.org



▲ The steps and side entrance (top) lead to the studio apartment ADU, which was crafted out of an existing space. The covered porch to the right leads to the primary residence. The ADU contains a kitchen, small dining and living area, sleeping area, bathroom and laundry area.

HOME VISIT #5 Internal ADU (Lower Level)

Portland, Oregon
Size: 795 square feet

“We were looking for a way to live in our house for the rest of our lives and to generate at least some income in the process,” Robert Mercer and Jim Heuer wrote for the program guide of the annual Portland ADU Tour when their home was part of the lineup. “An ADU offers the possibility of caregiver lodging in the future or even a place for us to live while we rent out the main house if we get to the point where we can’t handle the stairs any longer.”

THE SOUND OF SILENCE: Internal ADUs often require that soundproofing insulation be installed between the primary dwelling and the accessory unit that’s below, above or beside it. In Portland, the building code for duplex residences requires a sound insulation rating of at least STCC45. To property owners thinking about a similar ADU setup, the duo advise: “Think about how you live in your home and

Design: DMS Architects | Builder: Weitzer Company | Cost to build: \$261,000 in 2016 | Photo by Melissa Stanton, AARP | Article adapted from the 2017 ADU Tour project profiles on AccessoryDwellings.org

▼ The door to the right of the garage leads to a ground-floor ADU with windows along the back and side walls. The upper-level windows seen below are part of the main residence.



how having downstairs neighbors will change what you can and can’t do with your space and what investment you are prepared to make in sound insulation.”

AN ADDED BONUS: “We are pleased that we have been able to provide more housing density on our property and still be in keeping with the historic character of our home.”

Bringing Back ADUs

The reasons for creating or living in an ADU are as varied as the potential uses

ADUs are flexible. Over time, a single ADU might be used in many ways as an owner’s needs and life circumstances change. Following are just a few reasons why ADUs are created and by whom:

EMPTY NESTERS can build an ADU and move into it, then rent out the main house for supplemental income or make it available to their adult children.

FAMILIES WITH YOUNG CHILDREN can use an ADU as housing for a nanny or au pair or even a grandparent or two, who can then help raise their grandkids and be assisted themselves as they age.

INDIVIDUALS IN NEED OF CARE can reside in an ADU to be near family members, or they can use the ADU to house a live-in aide. (In fact, ADUs can be an affordable and more comforting alternative to an assisted-living facility or nursing home.)

HOME BUYERS can look forward to the rental income from an ADU to help pay their mortgage or finance home improvements, especially in expensive housing markets.

HOME-BASED WORKERS can use an ADU as their office or workshop.

HOMEOWNERS can use an ADU for guests or as housing for friends or loved ones who:

- aren’t yet financially independent, such as new high school or college graduates
- need temporary housing due to an emergency or while renovating their own home
- have disabilities but can live independently if family reside nearby



▲ The zoning code in Evanston, Illinois, permits accessory dwelling units, creating an opportunity for the owners of this 1911 home with an outbuilding in the backyard.

Planning and Paying for ADUs

Most new homes are built by developers, entire subdivisions at a time. Apartments are also built by pros.

But ADUs are different.

Although ADUs are occasionally designed into new residential developments, the vast majority are created by individual homeowners after they move in. In other words, ADUs are usually created by enthusiastic and motivated *amateurs*.

An ADU may present the ultimate chance for a do-it-yourselfer to build his or her small dream home. More often, homeowners bring in a combination of architects, designers and construction contractors to do the work, much as they would for a home addition or major kitchen remodeling. The local municipality’s planning department can provide guidance on the rules for ADUs and information about what permits, utility connections and fees are involved.

ADUs aren’t cheap, and they are often the most significant home improvement project a homeowner will undertake.

Although internal ADUs can sometimes be built for about \$50,000, new detached ADUs often exceed \$150,000. Most ADUs are financed through some combination of savings, second mortgages, home equity lines of credit and/or funds from family members (sometimes a relative who ends up living in it).

In some areas, the cost of building an ADU can be recouped after a few years of renting it. If that’s the plan, it’s worth estimating the expenses versus the potential income before undertaking an ADU project.

A few cities, nonprofits and start-ups are experimenting with creative financing options that could put ADUs within reach for more homeowners and their families, as well as prospective renters.

PHOTO BY ELI SPEVAK, ORANGE SPLOT LLC



▲ Walt Drake’s Southern-style, one-bedroom ADU has an outdoor, wraparound porch that can be accessed without using steps. The design is in keeping with other buildings in the neighborhood.

HOME VISIT #6 Detached ADU (One-Story)

Decatur, Georgia
Size: 800 square feet

When Walt Drake decided to downsize, his son Scott purchased his dad’s house for himself and his family and built a detached ADU (or DADU) for Walt.

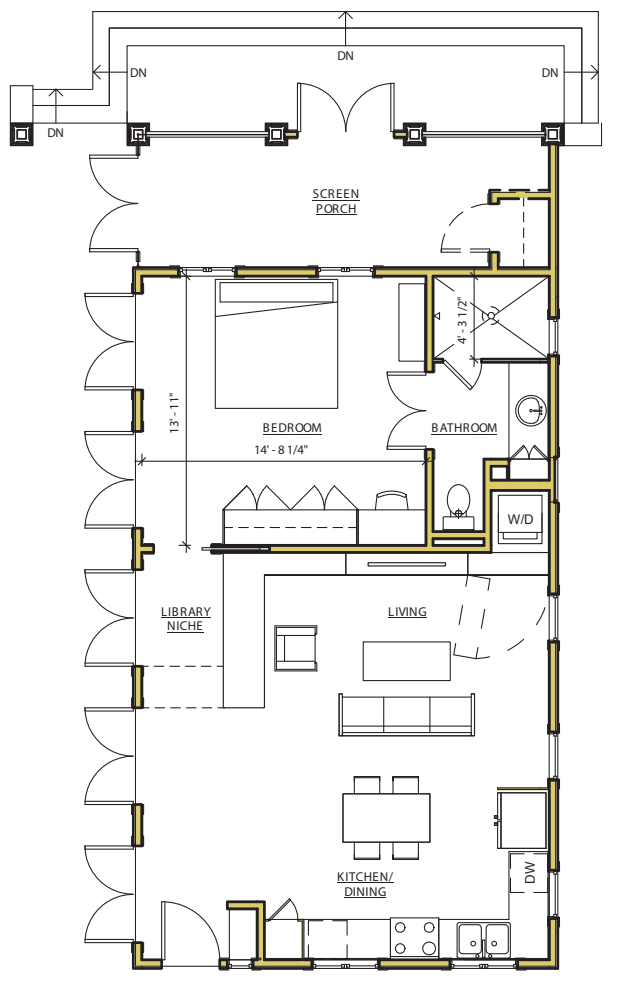
“From not finding what we wanted for Dad, we decided to create it,” says Scott. “Neighborhoods built in the 1920s have carriage houses. Building an ADU was a modern day version of something people have been doing on their property in this area for a hundred years.”

NEAR AND FAR: “We wanted the houses to be separate and to feel like we’re each on our own property, but we’re there for each other,” says Scott.

AGING-FRIENDLY: Building the ADU meant Walt didn’t have to sell his home and leave his neighborhood. “He was able to keep his own stuff and turn over what he didn’t need to us,” says Scott. “It kept my dad in place, which I think was important.”

FUTURE PLANS: Scott says the ADU is “serving its intended purpose” but that someday down the road it could be used as a long- or short-term rental. “The ADU could turn into lots of different things over the course of its lifetime.”

Design: Adam Wall, Kronberg Wall | Builder: Rob Morrell | Cost to build: \$350,000 in 2014 | Photo by Fredrik Brauer | Floor plan by Kronberg Wall Architects | Article adapted from “ADU Case Studies” by Lina Menard on AccessoryDwellings.org



ADUs Are Age-Friendly Housing

New-construction ADUs can be created with “universal design” features

An “age-friendly” home has a zero-step entrance and includes doorways, hallways and bathrooms that are accessible for people with mobility differences. Garage conversions (such as the one pictured on page 2) are among the easiest and least expensive ADU solutions for aging in place since they’re preexisting structures and generally have no-step entries. To learn more about making a home aging-friendly, download or order the AARP HomeFit Guide at [AARP.org/HomeFit](https://www.aarp.org/HomeFit).

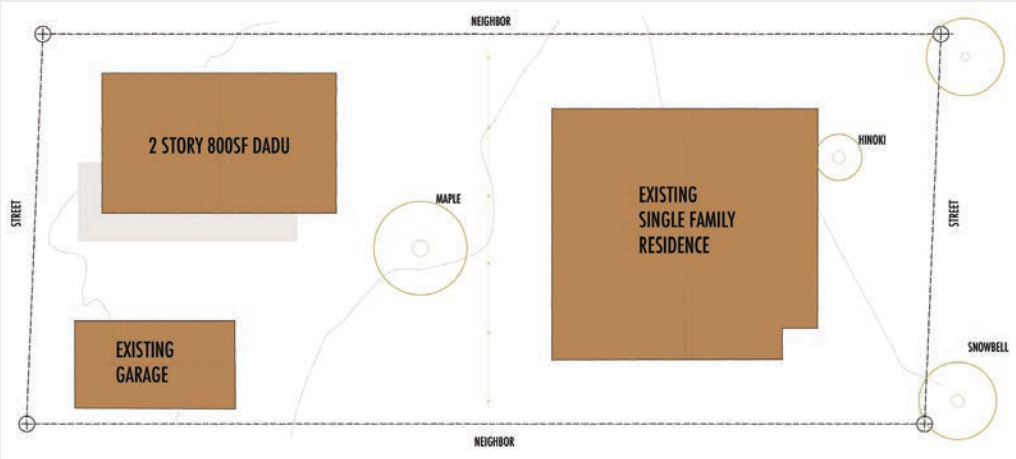
HOME VISIT #7 Detached ADU (Two-Story)

Seattle, Washington
Size: 800 square feet

Evelyn Brom’s plan was to build a backyard cottage and rent it out. She would keep living in her two-bedroom home.

AH-HA MOMENT: As the design developed, Brom realized that *she* wanted to live in the stunning wood-and-glass ADU. It was a good decision. A week before moving in, Brom was laid off from her job.

REAL LIFE: The \$3,000 a month Brom receives in rent for the main house (which is occupied by a three-generation family) provides a needed income. “Being laid off has made this arrangement a lifesaver,” Brom says. If the stairs in the cottage ever become too hard to navigate, she can move back into her original one-story house and rent out the cottage instead. “Now I have options,” she says.



▲ There’s a powder room, open kitchen and living room on the first floor, with a bedroom and bathroom upstairs.

◀ Although Brom’s property is only 0.13 acres, it’s large enough to accommodate two homes, a patio, a lawn and a garage. A slatted wood fence with a gate divides the space between the two houses and provides privacy.

Design: Chrystine Kim, NEST Architecture & Design | Builder: Ian Jones, Treebird Construction | Photo by Alex Hayden | Cost to build: \$250,000 in 2014
Article adapted from Where We Live: Communities for All Ages (AARP 2018)

HOME VISIT #8 Detached Bedroom

St. Petersburg, Florida
Size: 240 square feet

Bertha and her son John talked about someday buying a house with a mother-in-law suite. “Then one day someone came along and wanted my house, so I up and sold it,” she explains. “But that left me homeless. I asked John if I could build a small house in his backyard and he agreed.”

CREATIVE THINKING: A detached bedroom is a permanent, accessory structure that, unlike ADUs, lacks a kitchen. But that’s what makes these cabin-like homes more affordable to build than many ADUs and even tiny houses.

WHAT’S INSIDE: Bertha’s home contains a sleeping and living area and a full bathroom. “I paid for the little house and it’s on my son’s property. So I figured, if I’m cooking I can do it at my son’s house,” she says. (Her laundry is also done at his house.)



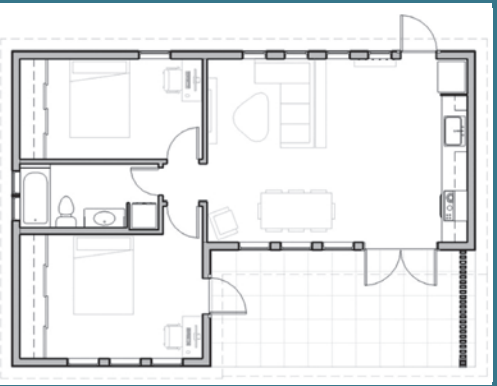
▲ A detached bedroom, which contains a bathroom but no kitchen, can provide housing for a loved one or serve as a home office or guest cottage.

REAL LIFE: “Having access to my son’s house makes it livable. Otherwise, I personally would not be happy. It’s very comforting to know that John is close by. Hopefully this will be my home forever.”

Design: Historic Sheds | Builder: Historic Sheds | Cost to Build: \$50,000 in 2017 | Photo by Historic Sheds | Article adapted from “ADU Case Studies” by Lina Menard on AccessoryDwellings.org

A Sustainable and Sunny ADU

Tired of living in a house with so many walled off and dark spaces that the sun couldn’t shine in, the home’s owners built and moved into the bright, airy, modern and very accessible ADU they created in their yard. (The original, larger home has become a rental.) The ADU is located within a conservation district and was constructed using sustainable materials and environmentally friendly techniques. One such feature is the deck trellis, which allows light in while diffusing the heat of the afternoon sun.



▲ Although this ADU has only 721 square feet of living space, there is room enough for two bedrooms.

Design: Propel Studio | Builder: JLTB Construction | Photo by Josh Partee | Cost to build: \$185,000 in 2017 | Article adapted from “ADU Case Studies” by Lina Menard on AccessoryDwellings.org

Practical Solutions for ADUs

Local laws can both allow and appropriately control the creation of accessory dwellings

There are more than 19,000 cities, 16,000 towns and 3,000 counties in the United States. Regulations about ADUs are typically written or adopted at the local government level.

Where it’s legal to build ADUs, homeowners still need to follow rules about where it can be done, how tall they can be, how many square feet they can contain, what they can look like and how they can be used. These rules can be found in the local zoning code.

Over the past few decades it has become clear that there’s a balance to strike between the strictness of ADU regulations and how often ADUs get built.

For instance, after Portland, Oregon, relaxed its ADU rules in 2010 and waived impact fees (a savings of up to \$12,000), the number of ADUs built there increased from about 30 per year between 2000 and 2009 to practically one ADU a day in 2015.

Changes in California’s ADU laws allowed Los Angeles to achieve an even more dramatic increase, going from 80 permit applications in 2016 to nearly 2,000 in 2017. Allowing both an ADU and a “Junior ADU,” or JADU — an interior ADU of 500 square feet or fewer — on properties in Sonoma County were among the urgent

policies adopted in the wake of Northern California’s many devastating fires.

Meanwhile, in many jurisdictions, well-intentioned but burdensome rules can stymie the creation of ADUs. ADU-related zoning codes should be restrictive enough to prevent undesirable development but flexible enough that they actually get built.

When a community is worried about a potentially undesirable outcome, it can — and many do — craft regulations to prevent particular building types, locations or uses. A city concerned about the environmental impact of new structures might prohibit placing detached ADUs in precarious locations, such as on steeply sloping lots. Communities wary of ADUs becoming, for instance, off-campus student housing could establish occupancy rules.

Every community has its own priorities and concerns, and there’s a wide enough range of regulatory controls that communities can write appropriate ADU rules.

This inherent flexibility in the form and function of ADUs allows them to pass political muster and get adopted in a wide range of places. (See page 16 for more about uses and rules.)

Rules that discourage ADUs

- ADU-specific regulations that don’t also apply to primary dwellings (e.g., owner-occupancy requirements)
- complex design compatibility criteria and approval steps
- off-street parking requirements beyond those required for the primary dwelling
- restrictions that limit ADUs to certain geographic areas, particular zoning categories or to large lots
- caps on square footage relative to the primary house that make it easy to add an ADU to a large home but hard or impossible to add one to a small home

TRADING SPACES: An ADU is always the smaller of two dwellings on a property, but it’s possible for an existing home to become the ADU when a larger house is built and becomes the primary dwelling.

Are ADUs allowed in your community?

Find out by calling the office in charge of land use and permits or stopping by in person. You can also search for and read the zoning code through the local government’s website.

- If ADUs are allowed, ask what conditions, permit needs and impact fees apply.
- If ADUs are not allowed in your community and you want them to be, ask an elected official or the local department of zoning and planning for information about how the codes can be updated. Then get organized and start advocating!

Creating (or Understanding) an ADU Zoning Code

The ADU section of a community’s zoning code needn’t be overly complicated. It just needs to establish clear, objective and fair rules for the following:

1. A Definition: A good zoning code clearly defines its terminology. Here, for example, is a useful outline for what, in the real world, is a very fluid term: “An ADU is a smaller, secondary home on the same lot as a primary dwelling. ADUs are independently habitable and provide the basic requirements of shelter, heat, cooking and sanitation.”

2. The Purpose: This is where the code describes key reasons a community allows ADUs. They should:

- increase the number of housing units while respecting the style and scale of single-dwelling development
- bolster the efficient use of existing housing stock and infrastructure
- provide housing that’s affordable and respond to the needs of smaller, changing households
- serve as accessible housing for older adults and people with disabilities

3. Eligibility: Who can build an ADU and on what type of property? A statement in this part of the code clarifies that an ADU can be placed only on a “residentially zoned, single-family lot.” (Some communities provide lot size standards, but many don’t.)

4. Creation: This is where the code sets out how an ADU can be built. For instance: “An ADU may be created through new construction, the conversion of an existing structure, as an addition to an existing structure or as a conversion of a qualifying existing house during the construction of a new primary dwelling on the site.”

5. Quantity: Most municipalities that permit ADUs allow one per lot. Vancouver, British Columbia; Sonoma County, California; and Tigard, Oregon, are among the few that allow two per lot (typically one internal and one external). Some communities also allow duplexes or townhomes to have ADUs, either in the backyard or on the ground floor.

6. Occupancy and Use: A code should state that the use-and-safety standards for ADUs match those that apply to the primary dwelling on the same property. (See page 17 for more about ADU uses.)

7. Design Standards:

- **Size and height:** A zoning code might specify exactly how large and tall an ADU is allowed to be. For instance, “an ADU may not exceed 1,000 square feet

or the size of the primary dwelling, whichever is smaller.” Codes often limit detached ADUs to 1.5 or 2 stories in height. (An example of that language: “The maximum height allowed for a detached ADU is the lesser of 25 feet at the peak of the roof or the height of the primary dwelling.”)

- **Parking:** Most zoning codes address the amount and placement of parking. Some don’t require additional parking for ADUs, some do, and others find a middle ground — e.g., allowing tandem parking in the driveway and/or on-street parking. (See page 16 for more about parking.)
- **Appearance:** Standards can specify how an ADU’s roof shape, siding type and other features need to match the primary dwelling or neighborhood norms. Some codes exempt one-story and internal ADUs from such requirements. (See page 16 for more about making sure that ADUs fit into existing neighborhoods.)
- **Entrances and stairs:** Communities that want ADUs to blend into the background often require that an ADU’s entrance not face the street or appear on the same facade as the entrance to the primary dwelling (unless the home already had additional entrances before the ADU was created).

8. Additional Design Standards for Detached ADUs:

- **Building setbacks:** Many communities require detached ADUs to either be located behind the primary dwelling or far enough from the street to be discreet. (A code might exempt preexisting detached structures that don’t meet that standard.) Although this sort of rule can work well for neighborhoods of large properties with large rear yards, communities with smaller lot sizes may need to employ a more flexible setback-and-placement standard.
- **Building coverage:** A code will likely state that the building coverage of a detached ADU may not be larger than a certain percentage of the lot that is covered by the primary dwelling.
- **Yard setbacks:** Most communities have rules about minimum distances to property lines and between buildings on the same lot. ADUs are typically required to follow the same rules.

Visit AARP.org/ADU to see examples of ADU zoning codes from selected cities.

ADU “Hot Topics”

As communities allow ADUs or update existing zoning codes and rules to be more ADU-friendly, they inevitably wrestle with some or all of the following issues:

Adding ADUs to neighborhoods

Recognizing that ADUs may represent a new housing type for existing neighborhoods, communities often write special rules to ensure they’ll fit in well. These guidelines typically address visual compatibility with the primary dwelling, appearance from the street (if the ADU can be seen) and privacy for neighbors. Rules that help achieve these goals include:

- height and size caps mandating that ADUs be shorter and smaller than the primary dwelling
- requirements that detached ADUs be behind the main house or a minimum distance from the street
- mandates that the design and location of detached ADUs be managed the same way as other detached structures (e.g., garages) on the lot
- design standards for larger or two-story ADUs so they architecturally match the primary dwelling or reflect and complement neighborhood aesthetics
- encouragement for the creation of internal ADUs, which are often unnoticed when looking at the house

Each community can strike its own unique balance between strict rules to ensure that ADUs have a minimal impact on neighborhoods and more flexible rules that make them easier to build.

▼ A top floor ADU can be a suitable rental for a student or someone who travels a lot for work. ADU expert Kol Peterson grew up in a home with an attic ADU that was usually rented to law school students. “They had to walk up the primary house’s interior stairs in order to access the affordable attic unit,” he writes in *Backdoor Revolution: The Definitive Guide to ADU Development*. “Over the years that each of them lived there, the tenants became parts of our family.”



Providing places to park

ADU regulations often include off-street-parking minimums on top of what’s already required for the primary dwelling. Such rules can prevent homeowners from building ADUs if there’s insufficient physical space to accommodate the parking. However, additional parking often isn’t needed.

Data from Portland, Oregon, shows that there are an average of 0.93 cars for each ADU, and that about half of all such cars are parked on the street. With fewer than 2 percent of Portland homes having ADUs (the highest percentage in the country), there is about one extra car parked on the street every six city blocks. This suggests that any impacts on street parking from ADUs are likely to be quite small and dispersed, even in booming ADU cities.

More-realistic parking rules might:

- require the creation of new parking only if the ADU displaces the primary dwelling’s existing parking
- waive off-street-parking requirements at locations within walking distance of transit
- allow parking requirements for the house and ADU to be met by using some combination of off-street parking, curb parking, and tandem (one car in front of the other) parking in a driveway

Dealing with unpermitted ADUs

It’s not uncommon for homeowners to convert a portion of their residence into an ADU in violation (knowingly or not) of zoning laws or without permits.

Such illegal ADUs are common in cities with tight housing markets and a history of ADU bans. One example is New York City, which gained 114,000 apartments between 1990 and 2000 that aren’t reflected in certificates of occupancy or by safety inspections.

Some cities have found that legalizing ADUs, simplifying ADU regulations and/or waiving fees can be effective at getting the owners of illegal ADUs to “go legit” — and address safety problems in the process.

Allowing and Restricting Uses

Communities get to decide whether to let ADUs be used just like any other housing type or to create special rules for them. Some municipalities take a simple approach, regulating ADUs just as they do other homes. So if a home-based childcare service is allowed to operate in the primary dwelling, it is also allowed in an ADU. Conversely, communities sometimes adopt ADU-specific regulations in order to avoid undesirable impacts on neighbors. Examples include:

Limiting short-term rentals

ADUs tend to work well as short-term rentals. They’re small and the owner usually lives on-site, making it convenient to serve as host. However, if ADUs primarily serve as short-term rentals, such as for Airbnb and similar services, it undermines the objective of adding small homes to the local housing supply and creating housing that’s affordable.

In popular markets, short-term rentals can be more profitable than long-term ones, allowing homeowners to recoup their ADU expenses more quickly. In addition, short-term rentals can provide owners with enough income that they can afford to occasionally use the ADU for friends and family.

A survey of ADU owners in three Pacific Northwest cities with mature ADU and short-term rental markets found that 60 percent of ADUs are used for long-term housing as compared with 12 percent for short-term rentals.

Respondents shared that they “greatly value the ability to use an

ADU flexibly.” For instance, an ADU can be rented nightly to tourists, then someday rented to a long-term tenant, then used to house an aging parent. ADUs intended primarily for visting family are sometimes used as short-term rentals between visits.

Cities concerned about short-term rentals often regulate them across all housing types. If there are already rules like this, special ones might not be needed for ADUs. An approach employed in Portland, Oregon, is to treat ADUs the same except that any financial incentives (such as fee waivers) to create them are available only if the property owner agrees not to use the ADU as a short-term rental for at least 10 years.

Requiring owner-occupancy

Some jurisdictions require the property owner to live on-site, either in the primary house or its ADU. This is a common way of addressing concerns that absentee landlords and their tenants will allow homes and ADUs to fall into disrepair and negatively impact the neighborhood.

Owner-occupancy rules are usually implemented through a deed restriction and/or by filing an annual statement confirming residency. Some cities go further, saying ADUs can be occupied only by family members, child- or adult-care providers, or other employees in service of the family.

Owner-occupancy requirements make the financing of ADUs more difficult, just as they would if applied to single-family homes. But as ADUs have become more common, owner-occupancy restrictions have become less so, which is good. Such requirements limit the appraised value of properties with ADUs and reduce options for lenders should they need to foreclose.

Enforcing owner-occupancy laws can be tricky, and the rules have been challenged in courts, sometimes successfully. However, according to a study by the Oregon Department of Environmental Quality, more than two-thirds of properties with ADUs are owner-occupied even without an owner-occupancy mandate.

While not technically ADUs, tiny houses can serve a similar purpose

► Because tiny houses — such as the 100-square-foot “Lucky Penny,” pictured — are built on a trailer with wheels rather than on a fixed foundation, they are typically classified as recreational vehicles (RVs) rather than permanent residences. Although tiny homes are usually smaller than 400 square feet, many of them do contain a kitchen and bathroom.



Design and Builder: Lina Menard, Niche Consulting | Photos by Guillaume Ditilh, PhotoXplorer

PHOTO BY KOL PETERSON, BUILDINGANADU.COM

ADU Web Resources
June 14, 2021, Planning Commission
Exhibit

https://enterprisecommunity.zoom.us/rec/play/0431hp0BYCberfgUerPCakqzxom2AeiWLzMdU0YJ2-e2eOmuZ3Z93Q0iNpI_4YoI63RhvO4fiYy7Dmg.iEJFvM_HnFcsSSPx?continueMode=true&_xzm_rtaid=IL3e2SLPTwW5ix0OhrKFRQ.1621536981368.27a7cbf94ee0b6cf1921d0988d08b0d5&_xzm_rtaid=795

https://www.youtube.com/watch?v=8WeMiGza_7c



PLANNING COMMISSION

Workshop Summary

May 17, 2021

Project Number	PC21-339ZTA, Zoning Text Amendment
Project Name	Article 8, Section 802, Accessory Dwelling Units
Attachments	Draft Ordinance

Proposal:

This application is being brought forward by Alderman Shackelford who is requesting a recommendation from the Planning Commission to the Mayor and Board of Aldermen for amendments to sections of the Land Management Code (LMC) pertaining to Accessory Dwelling Units (ADUs).

Project Location:

Amendments to the LMC apply broadly to the entire City as specified in the amendment. For example, an amendment that specifically addresses low density residential, R4, zoning would impact all R4 zoned properties throughout the City.

Background:

The LMC currently contains regulations for both Accessory Apartments and Accessory Detached Dwelling Units (ADDUs).

Accessory Apartments are secondary dwelling units within a principal, single-family, detached dwelling unit and are intended to be subordinate to that principal use. Accessory Apartments are permitted both in residential zoning districts as well as certain nonresidential zoning districts subject to Conditional Use approval by the Zoning Board of Appeals (ZBA). Section 801 establishes the criteria the ZBA must consider. For both residential and nonresidential districts, there are certain minimum lot standards that apply, amongst other criteria.

Accessory Detached Dwelling Units (ADDUs) are also subordinate to the principal dwelling on the property, but are separate detached dwelling units and are only permitted as part of a Planned Neighborhood Development (PND), Traditional Neighborhood Development (TND) or Mixed Use (MU-1 or MU-2) development. As part of the master plan process, the Planning Commission evaluates ADDUs in new developments for their location and dispersion and their relationship to the principal dwelling including the amount of open/green space on the lots as well as the architectural compatibility.

Accessory Dwelling Units are widely accepted as a tool in increasing affordable housing. ADUs can provide an affordable option for tenants, but also increasing affordability for a homeowner who is receiving rent. However, the relationship may not always be a homeowner/renter, instead, they can also provide options for family and extended family members, including aging parents and dependent children.

Important Issues:

The proposed changes increase the opportunity and flexibility for establishing ADUs. In considering amendments to the LMC, the Commission should consider the extent to which the changes are consistent with the Code and the degree to which they implement the Comprehensive Plan. The 2020 Comprehensive Plan does not go into effect until October 1, 2021 and as such, the text amendment should be considered in the context of the 2010 Comprehensive Plan, however, there are common goals and objectives between the two that the proposed amendments support.

Below is a summary of the changes:

- Section 404, Table 404-1, the *Use Matrix*, is being amended to eliminate “Accessory Apartments” as a separate line item from “Accessory Detached Dwelling Units” and “Accessory Detached Dwelling Units” is being amended to refer to all “Accessory Dwelling Units (ADU)”
 - ADUs on nonresidential properties are retained as a conditional use requiring ZBA approval.
 - ADUs on residential properties are permitted “by right”.
 - ADUs in the Residential Office (RO) and Downtown Office Commercial (DBO) zone are permitted “by right” when the property is used for residential purposes and a conditional use if it’s an accessory to a nonresidential use.
- Section 801 for “Accessory Apartments” is being repealed in its entirety.
- Section 802, currently “Accessory Detached Dwelling Units” is being repealed and replaced with regulations for ADUs which will now pertain to integrated and detached units.
 - Section 802 is broken down into ADUs on **Nonresidential Properties** and ADUs on **Residential Properties**.
 - On Nonresidential Properties:
 - The ADUs are required to be integrated into the principal structure.
 - The ADUs are subject to Conditional Use approval consistent with the criteria that currently apply to nonresidential accessory apartments under Section 801.
 - On Residential Properties:
 - Broken down into applications for **Individual ADUs** versus ADUs proposed as part of a **Master Plan**.
 - The option to integrate and design for the inclusion of ADUs as a component of the

community is being retained in Master Plan development.

- On Individual Properties general regulations are first established that would pertain to both of the following scenarios:
 - **Integrated** in existing house or an addition to the existing house.
 - **Detached** units are further divided into:
 - **New structures**
 - **Conversion of and addition to an existing accessory structure.**
- Section 803 is being amended to indicate the ADUs are not subject to the general requirements of accessory structures but are instead subject to Section 802.
- Section 1002 is being amended to delete the existing definition of Accessory Dwelling Unit and replace it with a more concise definition as well as define APFO, Actual Rear Yard and to eliminate the term Resident Owner.

On Individual Properties (in depth)

- General provisions will apply to **all applications** for an ADU on an individual property which are as follows:
 - ADU's are permitted only on single-family detached, townhouse and duplex lots in the RO, R4, R8, R12, R16, R20 and DR districts as indicated in Section 404, Table 404-1.
 - Only one ADU may be established on a lot.
 - One parking space must be provided on the lot in addition to the existing parking serving the primary residence if the current parking is less than or equal to the minimum required parking per Section 607, Table 607-1.
 - The owner of the lot shall live in either the primary residence or the ADU.
 - The nonowner occupied unit on the lot shall not be leased for a period of less than 90 days.
 - A home occupation may not be located within an ADU.
 - Prior to building permit approval, the property owner must record a declaration of restrictions containing a reference to the deed under which the property was acquired and stating the following:
 - The declarations in this section are binding upon all successors in ownership.
 - Upon sale of the property, the new owner of the subject property must file an ADU Registration with the Planning Division within 60 days acknowledging the deed restrictions on the property.
 - The property owner will abide by all regulations of Section 802 of the Land Management Code.

Integrated ADUs

- “Accessory apartments” under the current regulations.
- Require separate entrances to be on side/rear of house not facing the street to maintain the single family detached dwelling unit appearance/character.
- Limited to no more than 35% of the gross square footage of the house.

Detached ADUs

- Regulations applying to all Detached ADUs
 - Cannot exceed 800 sf.
 - Unless otherwise noted, the height of the ADU or the structure containing the ADU shall not exceed 50% of the height of the primary dwelling unit on the lot or 25’, whichever is less.
 - The ADU must be located in the actual rear yard of the principal structure.
 - Lots proposed for an ADU are subject to the impervious surface ratio requirements of Section 405, Table 405-1.
 - Lots proposed for an ADU are subject to the maximum rear yard coverage requirements of Section 803.
- New Structures for the purposes of creating an ADU:
 - If the structure is more than 6’ from the house it needs to setback from the side and rear property lines a distance equal to ½ the distance required for the house itself.
 - Architectural elements
 - The new structure must have building materials used in the principal structure
 - The design incorporates one of the following:
 - Windows of a certain scale/dimension, or
 - A dormer, or
 - A pitched roof.
 - A modification option has been established for the architectural elements. Similar to the modification authority granted to the Planning Commission under Section 821 for fences, walls, and hedges, the Commission will have the authority to consider individual applications for designs that vary from the standards above. This process will require public notice in accordance with Section 301.
- Conversion and additions to create an ADU after the Effective date of Ordinance:
 - If the conversion of an ADU eliminates parking for the primary residence, additional parking must be provided for the primary residence equal to the number of spaces lost as well as for the ADU.
 - An addition to an existing accessory structure which does not meet the setbacks for new construction of an ADU is limited in height to the 20’.

Jessica Murphy

From: Peter Samuel <petersamuel@mac.com>
Sent: Wednesday, May 19, 2021 4:46 PM
To: Gabrielle Collard
Subject: ADU legislation presented by Ald Shackelford -- support for the public record

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Ms Collard,

I'd like to express strong support for the legislation/code changes presented by Ald Shackelford. This is win-win legislation -- good for home-owners and renters. For home-owners in that they are allowed to build a separate unit for a relative a guest or a tenant, for renters in that they get new choices and opportunities to rent. It will add to the value of properties and hence to City tax revenues. Benefits all round.

Peter Samuel
102 W3rd St

Jessica Murphy

From: Mark Long <mark.long999@gmail.com>
Sent: Thursday, May 27, 2021 11:36 AM
To: Gabrielle Collard
Cc: Derek Shackelford
Subject: Accessory Dwelling Unit Legislation _ City of Frederick

Caution External Email: This email originated from outside of the City of Frederick. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Gabrielle,

I am writing to you as the Chair of the [Frederick County Affordable Housing Council](#) (AHC). I understand that you are the Case Planner for the proposed legislation for Accessory Dwelling Units in the City of Frederick and I wish to make some comments regarding that legislation on behalf of the AHC.

First, I want to say that the Affordable Housing Council supports the amendments to the Land Management Code that will increase the opportunity and flexibility for establishing ADUs in the City.

After the county revised their ADU ordinance in 2018 and made it easier for residents to build ADUs in the county, it has been a priority of the AHC to have the City revise their code as well. We are very pleased to see the City's proposed legislation taking shape and we thank Alderman Shackelford, who is the Alderman liaison to the AHC, for helping move this legislation forward. The availability of Accessory Dwelling Units provide one more tool in the tool box for providing more affordable housing opportunities for city residents.

I do, however, have some comments/questions that I wish you to consider. First, under Sec. 802, (e) (3) of the proposed legislation it states; **"Except as otherwise provided in this paragraph, the height of an ADU may not exceed 50% of the height of the primary dwelling on the lot or 25 feet, whichever is less..."** This would mean that if the primary home was a one story home, then the ADU would be half a story. This seems untenable, unless the intent was to prohibit ADUs for one story homes. I hope that was not the intent.

Second, under proposed Sec. 802, (f) (5) it states, **"...an ADU must include at least one of the following design elements: A. a pitched roof; B. a dormer located above each window; or C. windows oriented so that the length of the vertical side is at least twice and not more than three times the horizontal length."** Could you please explain the reasoning for these design element requirements? As a former home builder and currently a home inspector, I'm having difficulty wrapping my head around the reasoning behind this requirement. If you only need one of these design elements, this says to me that if you have a pitched roof, the windows can be any size and shape. Why does the size and shape matter if you have a flat roof, but it doesn't matter if you have a pitched roof? Also, a dormer by definition is located on a pitched roof. So if you have a dormer you also have a pitched roof. I don't see how you can just have design element **B** by itself.

Thank you for your consideration.

Regards,

Mark Long
Chair

[Affordable Housing Council](#)

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Mark Long

301-514-8243