### Aging-Ready Homes in the United States—Perception Versus Reality of Aging-Accessibility Needs: 2019

**Current Population Reports** 

By Sarah Davis, Allyson Clark, and Jonathan Vespa Issued October 2023 P23-219

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U.S. Census Bureau Robert L. Santos, Director

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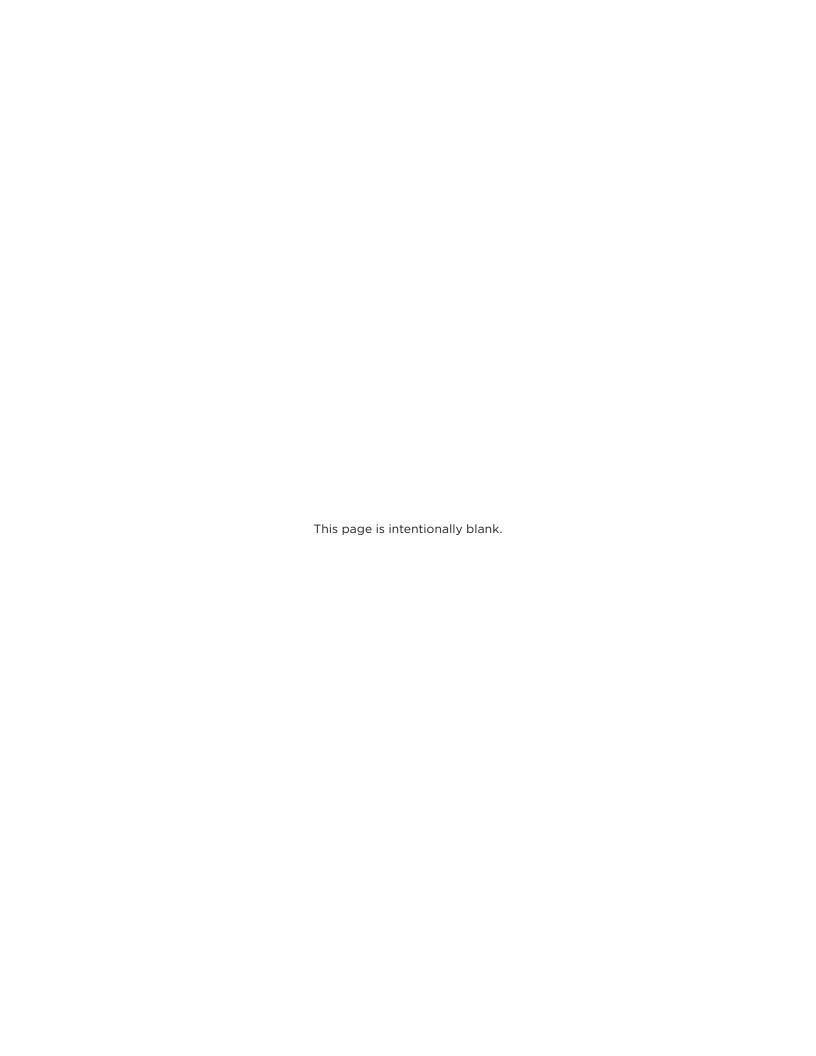
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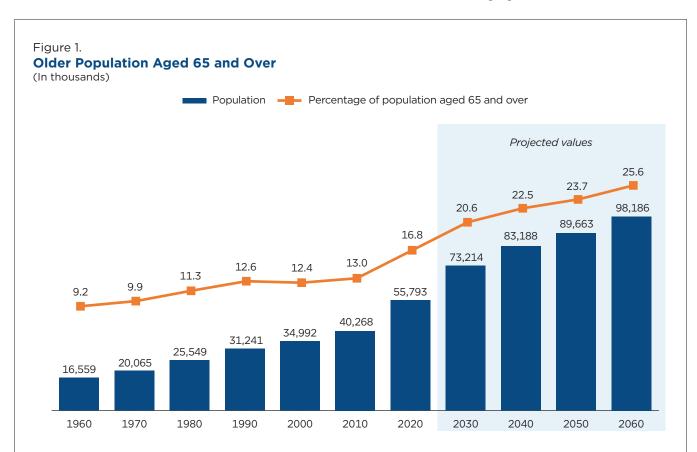
#### INTRODUCTION

A country in the middle of a baby boom grapples with having enough schools, teachers, pediatricians, and housing that is suitable for young families. A country with a rapidly aging population faces different questions. Can older adults safely move around and live in their homes? Are there steps and stairways they must use every day, bathrooms without handrails or grab bars, and kitchens with inaccessible cupboards or appliances?

Like many countries, the United States is experiencing a rapid aging of its population. In the decade between 2010 and 2020, the proportion of the older population in the United States grew as fast as it did during the preceding half century (Figure 1). Today, 56 million people are 65 years or older, representing 1 in 6 Americans. In the coming decades, those numbers are projected to continue growing. By 2060, 1 in 4 Americans will be 65 years or older.

The question of whether U.S. homes are ready for an aging population is a timely one and is closely tied to the health and well-being of older Americans. Nearly every second of every day, an older adult suffers from a fall in the United States, making this the leading cause of injury among older Americans (Centers for Disease Control and Prevention, 2020). About \$50 billion is spent annually on

medical costs related to falling injuries that are not fatal; another \$754 million is spent on those that are fatal. Medicare and Medicaid cover the bulk of these expenses, paying about three quarters of the medical costs for nonfatal falls (Florence et al., 2018; Haddad et al., 2019). In any given year, roughly 4 million Americans are admitted to nursing facilities, while demand for residential facilities and home health services is projected to nearly double by 2050 (Harris-Kojetin et al., 2013; Sengupta et al., 2022). A decade ago, the average health care costs for Medicare for a resident in a care facility was \$71,700 per year, compared with \$13,800 for someone living at home (Federal Interagency Forum on Aging Related Statistics, 2016).



Source: U.S. Census Bureau, Decennial Census 1960-2020; projected estimates, 2030-2060, United Nations 2022, Population Division.

The financial implications alone provide strong incentive for older adults to remain in their home as they age. They also highlight the importance of understanding what kind of difficulties older adults face living in and using their homes.

To examine whether U.S. homes are prepared for an aging population, this report uses data from the 2019 American Housing Survey (AHS) to show the number of housing units with select aging-accessible features.1 It examines the number of households with older adults who have difficulty using some feature of their home and how their demographic and economic characteristics differ from those who report no difficulty. The report also looks at older adults' beliefs and expectations about aging in place. Do older adults think their home meets their aging-accessibility needs and do they plan to renovate in the near future to prepare their home for those needs?

This report builds off an earlier one on this topic that used AHS data from 2011 (Vespa, Engelberg, and He, 2020). Although many of the concepts in this report are similar, the two reports cannot be directly compared because of methodological changes in the AHS between 2011 and 2019 (Appendix A. Methodological Changes to the American Housing Survey). Readers should assume that the estimates here cannot be directly compared with the earlier report.

#### **DEFINITIONS AND TERMS**

**Older households**: A housing unit with at least one adult aged 65 and over.

**Oldest households**: A housing unit with at least one adult aged 85 and over.

Difficulty using home features: This term indicates that the respondent reported that, without any assistance, at least one household member had problems using specific design elements of the home because of a condition other than a temporary injury. Households that reported difficulty using three or more elements of the home are defined here as having critical difficulty.

**Aging-ready household**: These households have a minimum of three basic design elements: a step-free entryway and a bedroom and full bathroom on the entry level.

Accessibility needs: Respondents were asked to rate how well their home meets their accessibility needs, on a scale of one (not at all) to five (very well). An **adequate** rating refers to a rating score of two to four. Importantly, the accessibility needs question was asked of respondents who had an individual in their household who used a mobility device (e.g., a walker, wheelchair, cane, or crutches).

All comparative statements in this report have undergone statistical testing and, unless otherwise noted, all comparisons are statistically significant at the 10 percent significance level.

#### **HIGHLIGHTS**

- About 50 million homes, or 40 percent of all U.S. homes, had the most basic features to be considered aging-ready; they had a step-free entryway into the home with a bedroom and a full bathroom on the first floor.
- New England had the smallest percentage of homes that were aging-ready (19.6 percent).

- Over one-half of older households, about 57 percent, reported that their home met their accessibility needs very well. Yet, only about 6 percent of older households had plans to renovate their home in the near future to improve accessibility.
- About 4 million older households reported difficulty living in or using their home. This number represented 11 percent of older households. Among oldest households this proportion increased to almost 25 percent.
- Older households in the South Atlantic division were more likely to report critical difficulty compared with the national average. In contrast, older households in

<sup>&</sup>lt;sup>1</sup> The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release. CBDRB-FY23-POP001-0142.

Table 1a.

U.S. Housing Units With Aging-Accessible Features
(In percent)

	l lositos al	Ct-t	Region and division <sup>1</sup>								
Basic aging-	United States		Northeast		Midwest		South			West	
accessible features					East	West		East	West		
			New	Middle	North	North	South	South	South		
	Millions	Percent	England	Atlantic	Central	Central	Atlantic	Central	Central	Mountain	Pacific
Total number of housing											
units <sup>2</sup>	124.1	100.0	4.8	13.0	15.0	7.0	19.7	6.2	11.7	7.6	15.0
Aging-ready home <sup>3</sup>	50.2	40.4	19.6	26.6	27.0	34.6	43.5	48.0	61.6	47.6	47.2
Home Layout											
Step-free entryway	66.5	53.6	33.6	47.6	39.9	49.3	58.0	56.0	69.1	57.7	59.8
Single-floor home	63.8	51.4	29.2	28.8	33.4	31.3	60.6	65.8	76.4	58.8	64.0
Multiple-floor unit with											
bedroom on entry level	27.6	45.8	43.0	37.3	49.5	52.3	41.1	62.4	55.9	48.0	43.1
Multiple-floor unit with full											
bathroom on entry level	34.6	57.4	59.3	49.0	60.7	63.8	52.0	71.4	67.2	59.2	54.5
Multiple-floor unit with both											
bedroom and full bathroom											
on entry level	26.0	43.2	40.6	34.1	47.7	49.8	39.0	59.2	53.9	45.3	39.2
<b>Mobility Features</b>											
Ramps in home	6.3	5.1	4.8	5.8	4.1	5.1	5.1	7.2	5.7	3.8	4.8
Chair lift, stair lift, or platform											
lift	1.2	1.0	1.4	1.4	1.0	1.1	1.1	0.3	0.5	0.5	0.9

<sup>&</sup>lt;sup>1</sup> For a list of states in each division, refer to <www.census.gov/programs-surveys/popest/about/glossary/geo-terms.html>

New England and the West North Central divisions were less likely to report critical difficulty.<sup>2</sup>

 Older households that reported difficulty living in or using their home were more likely to rent, live in an apartment building, and have an income that was near or below poverty compared with all older households.

# COMMON HOME DESIGN AND LAYOUTS IN THE UNITED STATES

There were approximately 124 million occupied housing units in the United States in 2019, ranging from mobile homes and single-family homes to apartments in multifamily buildings. These housing units (referred to as

homes or households in this report) had a variety of designs, builds, and aging-accessible elements. Of the 124 million homes, over one-half (54 percent) did not require individuals to climb or descend at least one step to enter the home. Less than onehalf (43 percent) of all multistory homes had both a bedroom and a full bathroom on the first floor. Homes that were not livable on the first floor were most conspicuous in New England, Mid-Atlantic, and West North Central divisions compared with the rest of the country.<sup>3</sup> For example, in the Mid-Atlantic, under 30 percent of homes were single story and 34 percent of multistory homes had a bedroom and a full bathroom on the first floor. Conversely, over

three-quarters of homes in the West South Central division were single-story and, by definition, had both a bedroom and a full bathroom on the first floor (Table 1a).<sup>4</sup>

First-floor access to these rooms is especially important considering the 11.2 million older Americans who reported serious difficulty walking or climbing stairs (U.S. Census Bureau, 2019). Over time, new construction and home design have gravitated toward multistory homes. Between 1975 and 2019, the percentage of new homes built in the country with two or more stories increased from 23 percent to 52 percent. This percentage

<sup>&</sup>lt;sup>2</sup> Occupied housing units only.

<sup>&</sup>lt;sup>3</sup> An aging-ready home is defined as a housing unit that has a step-free entryway and both a bedroom and full bathroom on the first floor. Source: U.S. Census Bureau, 2019 American Housing Survey.

<sup>&</sup>lt;sup>2</sup> These two divisions are not statistically significant from one another.

<sup>&</sup>lt;sup>3</sup> West North Central and East North Central are not statistically different from one another.

<sup>&</sup>lt;sup>4</sup> For a list of states in each division, refer to <www.census.gov/programs-surveys/popest/about/glossary/geoterms.html>.

Table 1b.

Number of Housing Units in the United States

(In millions)

					Regio	n and div	ision¹/			
		North	neast	Midwest		South			West	
Characteristic				East	West		East	West		
		New	Middle	North	North	South	South	South		
	United States	England	Atlantic	Central	Central	Atlantic	Central	Central	Mountain	Pacific
Total number of housing										
units <sup>2</sup>	124.1	5.9	16.1	18.6	8.7	24.4	7.8	14.6	9.4	18.6
Households with adults										
65 or older	37.1	1.9	5.0	5.5	2.6	7.7	2.3	3.8	2.8	5.6
Households with adults										
85 or older	5.0	0.3	0.8	0.7	0.3	1.0	0.3	0.5	0.4	0.8

<sup>1</sup> For a list of states in each division, refer to <www.census.gov/programs-surveys/popest/about/glossary/geo-terms.html>.

was even higher in the Northeast, growing from about 42 percent to 78 percent of new builds across the same period (U.S. Census Bureau, 1978 and 2022). Nationally, the percentage of new multistory construction peaked in 2013 at 59 percent and has since fallen to 51 percent in 2021.

This report defined aging-ready homes as housing units that had a bedroom and a full bathroom on the first floor, as well as a step-free entryway. Although this was one possible definition of an aging-ready home, other studies on aging-accessible homes have also focused on single-floor living (Will, 2015). This definition did not include every housing need of the older population, but it did focus on the design elements of a home to address a frequent problem faced by older adults—ambulatory difficulties and fall-related injuries on the stairs (Ambrose, Paul, and Hausdorff, 2013; Jacobs, 2016). Individuals who had an ambulatory disability had serious difficulty walking or climbing stairs. Navigating stairs can be especially problematic for older adults. Stairway falls are a leading cause of accidental death among older adults and are more likely to

cause serious injury or disability than falls suffered in other circumstances (Jacobs, 2016; Di Guilio et al., 2020). For these reasons, we considered singlefloor living a fundamental element of an aging-ready home.

#### PREVALENCE OF AGING-READY HOMES

The stock of aging-ready homes across the nation may be inadequate for the growing number of older households.<sup>5</sup>
About 40 percent of homes in the United States had a bedroom and a full bathroom on the first floor, as well as a step-free entryway. The prevalence of this type of aging-ready home varied geographically. About 62 percent of homes in the West South Central division were aging-ready, compared with only 20 percent of homes in New England. The

difference was partially due to building type. Each division in the South and West had a greater prevalence of single-story homes than each division in the Northeast or Midwest. In contrast, at least 70 percent of homes in New England and the Mid-Atlantic had multiple floors (Table 1a; for the total number of homes by division with an older adult, refer to Table 1b).

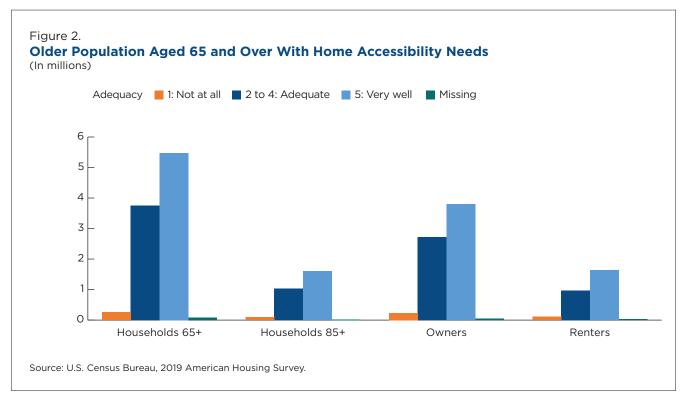
Furthermore, different parts of the country have populations with different accessibility needs. Older adults who have an ambulatory disability were most common in the East South Central and West South Central divisions (U.S. Census Bureau, 2019), which might explain why homes in the East South Central division were more likely to have ramps than the national average (Table 1a). All other divisions were less likely to have ramps or were not statistically different from the national average. The East and West South Central divisions had a lower share of homes with chair, stair, and platform lifts than the national average (Table 1a).6 The

<sup>&</sup>lt;sup>2</sup> Occupied housing units only.

Source: U.S. Census Bureau, 2019 American Housing Survey.

<sup>&</sup>lt;sup>5</sup> The definition of aging-ready in this report differs from the one used in the 2020 report, "Old Homes, New Needs: Are U.S. Homes Ready for an Aging Population?" The older report included a bathroom aging-accessibility feature such as handrails or grab bars in the shower. This question was not included in the 2019 American Housing Survey and was not included in this report's definition of aging-ready. Because of these methodological changes, readers should not compare estimates of aging-ready homes between these two reports.

<sup>&</sup>lt;sup>6</sup> East South Central and West South Central are statistically different from one another.



lack of ramps and lifts across the nation might be explained by the widespread perception that ramps and other similar renovations for accessibility decrease the property value of a home, when in fact the opposite can be true (Mattie et al., 2016).

# DIFFICULTY LIVING IN OR USING FEATURES OF THE HOME

When asked to rate how well their home meets their accessibility needs, the majority of people responded "very well," while the second-largest group rated their home as "adequate" (Figure 2). On a scale of 1 (not at all) to 5 (very well), an adequate rating referred to a respondent who gave their home a rating of 2 to 4. The question was asked of respondents who had an individual in their household who used a mobility device (e.g., a walker, wheelchair, cane, or crutches). Figure 2 only includes

households with at least one individual aged 65 or older.

While the personal meaning of an adequate rating likely varied from respondent to respondent, at a minimum, the rating indicates that some part of the home was not perfectly accessible and that not all features of the home were wholly inaccessible. The majority rating of "very well" across age groups and tenure was consistent with the overall AHS sample irrespective of age, which might indicate that perceptions of housing accessibility depend on the severity of mobility difficulties (U.S. Census Bureau, 2019). There are other possible explanations for such overwhelmingly positive ratings. People with mobility impairments may have become accustomed to the challenges of navigating their home and subsequently lowered their expectations for home accessibility. They may have thought that their current

residence was as accessible as they could afford given their options and resources, or they may have been comparing their current home to a former residence where they experienced more difficulties.

#### DAILY LIVING IN THE HOME: OLDER HOUSEHOLDS WITH RESIDENTS WHO HAD DIFFICULTY USING HOME FEATURES

Of the 37 million older households in the United States, 4.1 million had difficulty using some feature of the home (Table 2). The most common difficulty was entering the home. In general, older households reported more difficulty using a particular room than getting to that room, which suggests that the layout or functionality of the room was more problematic than ambulatory issues. About 4.5 percent, or 1.7 million older households experienced critical

Table 2. **Households With Adults Aged 65 and Older Who Have Difficulty Using Home Features**(In percent)

	United States Region and division <sup>1</sup>										
	United	States	North	neast	Midv	vest		South		Wes	st
Household characteristic	Millions	Percent	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
HOUSEHOLDS WITH ADULTS AGED 65 OR OLDER WHO HAD DIFFICULTY WITH:											
Entering the home	2.5 1.5 2.0 1.3 1.7 1.3 2.0	6.8 3.9 5.4 3.4 4.5 3.4 5.4	6.1 3.5 3.2 1.8 3.1 1.4 4.3	8.8 4.4 5.3 3.9 4.9 3.4 5.2	6.7 2.4 4.4 2.1 2.9 2.5 4.4	3.6 S S S S S S	7.5 5.6 7.1 4.7 5.7 4.7 7.1	8.3 4.8 7.2 4.8 6.4 4.9 6.7	7.1 4.6 7.1 4.0 5.2 4.5 6.4	4.0 2.5 4.4 2.6 3.4 2.2 3.6	6.2 4.0 5.3 3.5 5.6 3.3 5.7
Households With Adults Aged 65 or Older Who Had Difficulty With: One or more features	4.1 2.3 1.7	10.9 6.2 4.5	10.6 6.3 2.3	12.1 5.8 5.0	10.0 5.6 3.4	5.5 2.5 1.2	12.3 7.9 6.2	12.8 8.2 6.2	13.0 7.2 5.0	7.5 4.2 3.1	10.9 5.8 4.7
HOUSEHOLDS WITH ADULTS AGED 85 OR OLDER WHO HAD DIFFICULTY WITH:	1.7	4.5	2.3	3.0	3.4	1.2	0.2	0.2	3.0	3.1	7.7
Entering the home.  Getting to the bathroom  Using the bathroom  Getting to the bedroom.  Using the bedroom  Getting to the kitchen.  Using the kitchen.	0.8 0.5 0.7 0.4 0.6 0.4 0.7	15.5 10.5 13.4 8.4 11.0 8.7 13.1	18.7 9.5 10.7 2.7 7.6 4.0 8.6	22.9 16.2 16.4 11.8 16.9 11.6 16.6	12.0 4.7 9.5 3.9 7.0 6.2 8.2	10.8 4.5 2.2 4.5 1.8 4.4 3.7	15.0 13.2 19.2 10.4 12.6 10.3 19.8	18.6 11.9 14.7 11.9 15.7 9.4 17.9	14.5 9.9 12.6 7.1 10.7 6.0 9.7	10.7 7.3 10.3 6.4 6.6 6.4 8.0	14.6 11.0 12.7 11.1 12.1 12.1 13.3
Households With Adults Aged 85 or Older Who Had Difficulty With: One or more features	1.2	24.3	25.9	28.5	19.3	15.4	30.2	27.9	24.3	18.1	21.2
Two or more features	0.8 0.6	15.2 11.1	16.0 6.4	18.3 16.2	11.6 7.7	7.6 S	19.3 14.8	20.1 11.9	12.7 9.7	10.3	14.7 12.9

S Estimate is suppressed because it does not meet data quality standards.

difficulty—i.e., trouble with three or more features of the home.

Difficulty using home features worsened with age. Nearly one-quarter of the oldest households reported difficulty using at least one feature of the home. This is not surprising given that the oldest adults were more likely to have health limitations or difficulty with daily activities of living, such as dressing, bathing, or running errands, than adults in their

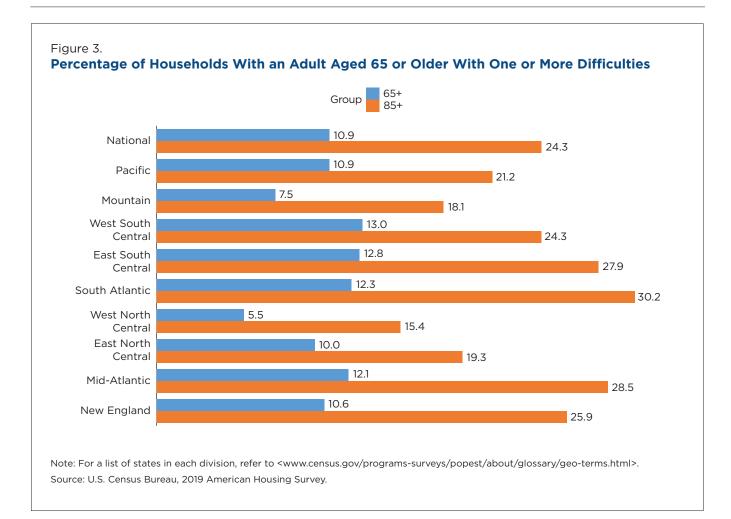
60s or 70s (He and Larsen, 2014; Joint Center for Housing Studies of Harvard University, 2016). Among the oldest households, entering the home was among the most common difficulties measured in the AHS, though it was not statistically different from using the bathroom or the kitchen. About 11 percent, or 600,000, of the oldest households experienced critical difficulty.

# OLDER HOUSEHOLDS REPORT MORE DIFFICULTY IN CERTAIN REGIONS OF THE COUNTRY

There was considerable variation in how well the housing stock suited the needs of older adults across the country. The percentage of older households where residents struggled with one or more features of their home ranged from 5.5 to 13.0 percent (West North Central and

 $<sup>^1</sup>$  For a list of states in each division, refer to <www.census.gov/programs-surveys/popest/about/glossary/geo-terms.html>.

Source: U.S. Census Bureau, 2019 American Housing Survey.



West South Central divisions, respectively) across the United States. For the oldest households, the range widened to 15.4 and 30.2 percent (West North Central and South Atlantic divisions, respectively), while for those households that experienced critical difficulty, the range varied from 6.4 (New England and Mountain divisions) to 16.2 percent (Mid Atlantic division (Figure 3 and Table 2).

One might expect a greater prevalence of aging-ready homes to translate to a lower share of older households that reported difficulty with their home. Instead, the concentration of aging-ready homes often coincided with areas where older households also reported difficulty. The West

South Central division had the highest share of aging-ready homes, and the South Atlantic division had a larger percentage of aging-ready homes than the nation as a whole. Yet, this did not translate to a lower percentage of older or oldest households that reported difficulty. Similarly, the West North Central division had the smallest percentage of older and oldest households with difficulty using home features while it also had a smaller share of aging-ready homes than the national average.

### TENURE, DIFFICULTY, AND PERCEIVED ADEQUACY

Older households had an overall positive impression of how well their home met their accessibility

needs (Figure 2). However, when we considered the number of difficulties that older adults reported, we found a relationship between housing tenure and perceived quality of housing accessibility. Among older households with no difficulty, adequacy ratings were not significantly different for owners and renters (Figure 4a). Almost two-thirds of both older owners and renters reported that their home suited their needs very well. However, among older households with even one difficulty, owners were as likely to report that their home suited their needs very well as they were to say it was adequate (Figure 4b). In contrast, renters with one difficulty remained more likely to report

that their home suited their needs very well.

Among older households that experienced three or more difficulties, owners were more likely to report that their home only adequately met their accessibility needs. However, renters had only just closed the gap between reporting that their home fit their needs adequately or very well (Figure 4c). In other words, as the number of difficulties increased, owners more quickly adjusted their perceptions of how well their home met their needs compared with renters. As mentioned previously, households may have reported adequacy ratings relative to how well they thought their home could fit their needs given their available resources. The differences in how owners and renters rated their home may also reflect that owners believed that they had more control over renovating their homes than renters.

### HOME RENOVATIONS FOR AGING IN PLACE

Older homeowners tended to be aware of their home's accessibility shortcomings (Figures 4a, 4b, and 4c). However, most older households did not plan to renovate to make their home more aging accessible. Only about 6 percent of homeowners with at least one person aged 65 or older had plans for home improvement projects to make their home more accessible for people with physical limitations. For the oldest households, this proportion increased to 9.1 percent (Figure 5).

As previously discussed, singlefloor living is an important accessibility feature for homes with older adults. According

Figure 4a.

Percentage of Households With Older Adults Who Reported No Difficulties

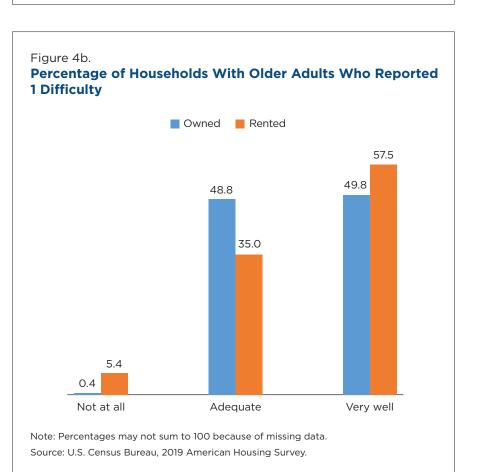
Owned Rented

63.0 64.5

1.9 2.2

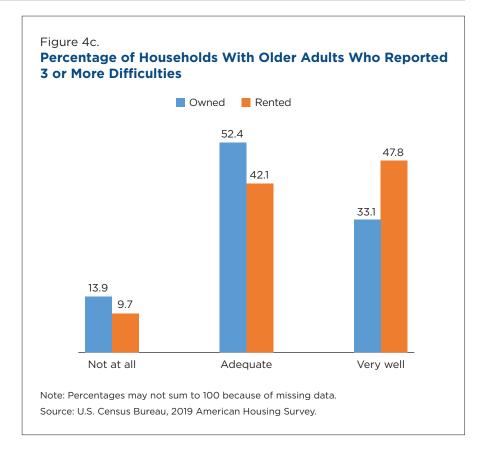
Not at all Adequate Very well

Note: Percentages may not sum to 100 because of missing data.
Source: U.S. Census Bureau, 2019 American Housing Survey.



to the AHS, 25.1 percent of older households had difficulty walking or climbing stairs. For the oldest households, this increased to 44.5 percent. Yet, among households that did not already have a bedroom and full bathroom on the first floor, only 2.8 percent of older households and 3.3 percent of the oldest households had plans to add an entry level bedroom or full bathroom (the difference in these percentages was not statistically significant) (Figure 5). Perhaps these numbers were so low due to the expense of renovating and building out these kinds of rooms. For example, Forbes reported that adding a bathroom to an existing space in the home can range from \$6,000 to \$13,000 for adding it to a laundry room and \$15,000 to \$50,000 for adding to a bedroom. In contrast, building out an entirely new structure for a bathroom can average \$90,000 (Forbes, 2022).

Planning to renovate appears to be the exception among older households. This reveals an intriguing interaction between perceptions about aging-ready homes and the difficult reality that many older adults face. About 11 percent of older households and 24 percent of the oldest households had at least one difficulty with their home layout or design. Older homeowners tended to lower their adequacy rating as they experienced more difficulties using features of the home. Yet, older households typically did not have plans to fix their home's deficiencies. The cost of renovations may help explain why most older households were not planning renovations to add or improve accessibility features. In turn, prohibitive costs could



contribute to the perception that the existing home was good enough, even if the older adult still had difficulty using some home features.

#### CHARACTERISTICS OF OLDER HOUSEHOLDS THAT REPORTED DIFFICULTY USING HOME FEATURES

The first parts of this report examined the stock of housing with aging-accessible features and how many households with older adults reported difficulty living in their home. The final section looks at the demographic and economic characteristics of these older households. Research has shown that older adults who have difficulty living in or using their home tend to be poorer (Louie and Ward. 2011). As a result. they have fewer resources for renovating, adding accessibility features, or moving into other

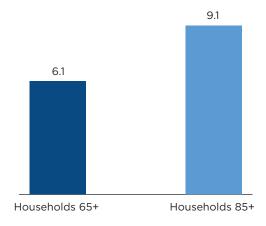
housing that would better meet their accessibility needs. These adults also have fewer resources to help them while recovering from a fall or injury.

Older households with no difficulties were more likely to own their homes, while those with three or more difficulties were more likely to be renters. Roughly one-third of households with critical difficulty lived in a rented housing unit, compared with about 22 percent of all older households. Because renters had less control over their home, they may not have been able to renovate or install aging-accessibility features such as handrails, an elevated toilet, or a built-in shower seat. Even among homeowners, older adults may have been unable to renovate because they could not afford to do so. Other owners may have chosen

Figure 5.

Percentage of Owner-Occupied Households Aged 65 or Older Who Planned Home Improvements

Planned to make home improvements in the next 2 years to make more accessible for people with physical limitations.



Source: U.S. Census Bureau, 2019 American Housing Survey.

Planned to add a bedroom or bathroom to the entry level in the next 2 years (two-floor households without either room on the entry level).



not to renovate because they viewed their home as adequately meeting their accessibility needs, despite continuing to experience difficulties navigating and using their home.

Compared with all older households, households that had critical difficulty were less likely to have a householder who completed some college or more. Almost 40 percent of these households lived in or near poverty, significantly more than the average for all older households. Compared with all older households, those with critical difficulty were more likely to have householders who were female, Black, Hispanic, foreignborn, living with at least one person who was not their spouse, or living in an apartment building (Table 3).7

Differences in the number of difficulties reported across demographic factors, such as sex and race, must be situated in the context of housing tenurethe ability to renovate a home to reduce difficulties largely depends on owning the home, and in order to buy a home, one must have adequate resources. (In this report, we used educational attainment and income-topoverty ratio as measures of financial well-being.) Accordingly, compared with older households that had critical difficulty, those with no difficulties were more

likely to have had householders who were younger, living with a spouse, and who attended at least some college. These households were more likely to be economically advantaged and to have had more resources than households with critical difficulties (Table 3).

Surprisingly, households that reported critical difficulties navigating and using their home were more likely to be living in an aging-ready home than households with no difficulties. Perhaps this indicates that older adults who had difficulties sought out a home with greater accessibility features because they had a greater need for them. While accessibility features can help people, they may not completely offset the difficulties they experience. This may help explain the regional relationship between the prevalence of aging-ready homes and older

<sup>&</sup>lt;sup>7</sup> For living arrangements in Table 3, "living alone" refers to households where the householder lives alone without any other members in the household; "living with spouse" refers to households where the householder either lives with just their spouse or lives with their spouse and other individuals; "other arrangement" refers to households that have more than one person, but the other member(s) of the household are not the householder's spouse.

Table 3. Characteristics of Households With Adults Aged 65 and Older Who Have Difficulty Using Home **Features** 

(In percent)

		ılt		
Characteristic	All households 65 and older	No difficulties	One or more difficulties	Three or more difficulties
HOUSING CHARACTERISTICS	03 and older	No difficulties	difficulties	difficulties
Tenure				
Owned	77.8	79.7	69.2	66.8
Rented		20.3	30.8	33.2
Housing Type				
Single-family home	75.2	75.9	69.2	69.1
Apartment building		18.2	24.3	24.7
Mobile home		5.8	6.5	6.2
Aging-ready home <sup>1</sup>	1	47.5	52.8	59.0
DEMOGRAPHIC CHARACTERISTICS				
Median age of householder	71	71	74	74
Sex of householder				
Female	51.3	49.9	58.2	62.1
Male	48.7	50.1	41.8	37.9
Race or Ethnicity of Householder <sup>2</sup>				
White alone	83.0	83.6	83.1	80.2
Black alone		10.8	13.3	15.7
Other		5.6	3.6	4.1
Hispanic (any race)		8.2	11.8	14.4
Foreign-born	13.1	12.4	15.1	17.2
Household Living Arrangement				
Householder living alone	37.1	37.0	34.5	28.8
Householder living with spouse		48.3	40.4	39.5
Other arrangement	15.3	14.7	25.2	31.7
ECONOMIC CHARACTERISTICS				
Householder's Education				
Some college or more		61.1	53.0	52.1
High school diploma		26.9	28.1	24.0
Less than a high school diploma	12.8	12.0	18.9	23.9
Household Income-to-Poverty Ratio				
0 to 149 percent		24.9	35.0	39.4
150 to 299 percent		27.0	31.8	33.0
300 to 499 percent	21.8	22.3	19.4	15.9
500 percent or higher	23.7	25.8	13.7	11.7

 $<sup>^1</sup>$  An aging-ready home is defined as a housing unit that has a step-free entryway and both a bedroom and full bathroom on the first floor.  $^2$  Other includes respondents who reported Asian alone, Native Hawaiian or Other Pacific Islander alone, American Indian or Alaska Native alone, and Two or More Races. Categories will not add to 100 percent because Hispanics may be of any race.

Source: U.S. Census Bureau, 2019 American Housing Survey.

households that had the most difficulty. Some areas may have more aging-ready homes because that is where there was the greatest need. On the other hand, the generally positive perceptions that older adults had of their home's adequacy may have inadvertently discouraged them from installing or adding aging-ready features, a type of false confidence in the home's ability to meet future needs.

#### **CONCLUSION**

Of the 37 million households with older adults in the United States, nearly 11 percent reported difficulty living in or using their home. Among the oldest households, this figure was doubled (about 24 percent). One conclusion of this report is that older households face different housing accessibility needs across geographic areas of the United States. These accessibility needs differed significantly by division, as well as by age and housing tenure. These relationships likely reflected a combination of geographic differences in older, inadequate housing, and older adults' poor health.

Although many older Americans reported these difficulties, there appears to be a disconnect between perceptions and needs surrounding aging-accessibility in the home. Most older households said that their home met their accessibility needs very well, even though most homes in the United States lacked some basic agingready elements (i.e., a step-free entryway and a bedroom and full bathroom on the first floor).

Similarly, relatively few older homeowners had renovation plans to improve the home's aging-accessibility, even though 1 in 10 reported difficulties living in or using their home. The disconnect may have stemmed from a variety of factors such as a lack of resources to renovate, a belief that the home's existing layout was good enough, or for renters, a lack of control over changing their home's layout.

The layout and design of the home affect older adults' ability to live safely and comfortably. However, few older adults may have the financial resources to add or build aging-accessible features, particularly where the stock of homes is old and requires more extensive renovations such as in the Northeast. Yet, the need for aging-ready homes is likely to grow over the next few decades, as baby boomers age and the size of the older population expands. Given the risks and long-term consequences of fall-related injuries, it is economically and health-imperative to consider the ability of older adults to age safely and comfortably in their homes.

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#### APPENDIX A.

#### METHODOLOGICAL CHANGES TO THE AMERICAN HOUSING SURVEY

The American Housing Survey (AHS) is the most comprehensive national housing survey in the United States. It is sponsored by the U.S. Department of Housing and Urban Development (HUD) and conducted by the U.S. Census Bureau. As a longitudinal survey, the AHS returns to interview the same national sample of housing units every other year.

The AHS defines a housing unit as a house, apartment, group of rooms, or single room occupied or intended for occupancy as separate living quarters. Separate living quarters are those where the occupants live separately from any other people in the structure and that have direct access from the outside of the structure or through a common hall, lobby, or vestibule. The AHS excludes group quarters such as nursing homes. Thus, the current report only includes households where the older adult resides in living quarters that fit this definition of a housing unit.

In 2015, the AHS drew a new sample and underwent a redesign. As a result, AHS data from 2015 onward may not be directly comparable to data from earlier years. Many aspects of the current report differ in subtle ways from the prior report on this topic, "Old Housing, New Needs: Are U.S. Homes Ready for an Aging Population?" that used data from the 2011 AHS. For example, the 2011 AHS included information on whether someone in the household had difficulty using various features of the home, as well as which household member had difficulty using each feature. The 2019 AHS, used in the current report, only includes information on whether any household member experienced difficulty using a feature, but not the specific household member that had the difficulty.

The home accessibility content was revised and many of the questions that were asked in 2011 are no longer fielded or have different question wording or universes. For example, the presence and use of handrails or grab bars in the bathroom and the presence and use of a built-in

shower seat are no longer asked. The 2011 AHS also asked whether respondents had difficulty getting into the bathtub or shower, or had difficulty using kitchen counters or the stove, which are no longer asked. The 2019 AHS, in contrast, asked more generally whether anyone in the household had difficulty using the bathroom or kitchen. Both reports focus on households that have older adults and have someone in the household who experiences difficulty using certain household features or elements. In the current report, however, the older adult may not necessarily be the person who had the difficulty.

These methodological changes make it difficult to draw comparisons between the current report that uses 2019 AHS data and the older report that used data from 2011. We discourage readers from drawing comparisons between the reports, even when phrases, such as "aging-ready homes" and "livable on the first floor," may be similar.

Appendix Table 1a.

#### Standard Errors for U.S. Housing Units With Aging-Accessible Features

(In percent)

	Linitad	Statos	Region and division <sup>1</sup>								
Basic aging-	United States		Northeast		Midwest		South			Wes	st
accessible features					East	West		East	West		
			New	Middle	North	North	South	South	South		
	Millions	Percent	England	Atlantic	Central	Central	Atlantic	Central	Central	Mountain	Pacific
Total number of housing											
units <sup>2</sup>	256	X	0.05	0.05	0.07	0.04	0.10	0.06	0.05	0.08	0.05
Aging-ready home <sup>3</sup>	502	0.39	1.16	0.97	0.93	1.43	1.00	1.75	1.08	1.70	0.96
Home I syout											
Home Layout Step-free entryway	417	0.32	0.99	0.89	0.74	1.35	0.82	1.61	0.97	1.82	0.58
Single-floor home	435	0.34	0.95	0.60	0.90	1.86	0.82	1.16	0.87	1.49	0.38
Multiple-floor unit with bedroom		0.54	0.55	0.00	0.50	1.00	0.03	1.10	0.07	1.45	0.77
on entry level	424	0.54	1.97	1.20	1.38	1.69	1.51	2.97	1.98	2.40	1.53
Multiple-floor unit with full											
bathroom on entry level	489	0.61	2.29	1.43	1.43	1.92	1.56	2.44	1.96	2.38	1.50
Multiple-floor unit with both											
bedroom and full bathroom on											
entry level	419	0.54	1.92	1.24	1.44	1.83	1.51	3.12	2.05	2.41	1.42
Mobility Features											
Ramps in home	196	0.16	0.48	0.42	0.39	0.85	0.32	0.86	0.44	0.59	0.33
Chair lift, stair lift, or platform	130	0.10	0.40	0.42	0.55	0.00	0.52	0.00	0.44	0.55	0.55
lift	95	0.08	0.35	0.23	0.17	0.37	0.18	0.16	0.12	0.15	0.14

X Not applicable.

Appendix Table 1b.

#### **Standard Errors for Number of Housing Units in the United States**

(In thousands)

		Region and division <sup>1</sup>									
		North	Northeast		Midwest		South			st	
Characteristic		New	Middle	East North	West North		East South	West South			
	United States	England	Atlantic	Central	Central	Atlantic	Central	Central	Mountain	Pacific	
Total number of housing units <sup>2</sup>	255.0	69.0	61.1	93.3	42.9	145.0	70.6	78.0	101.3	56.9	
65 or older	146.5	33.6	47.4	53.5	40.5	85.4	42.8	44.3	48.2	46.2	
85 or older	121.6	22.1	42.3	44.3	26.0	55.1	30.4	38.8	28.6	40.8	

<sup>&</sup>lt;sup>1</sup> For a list of states in each division, refer to <www.census.gov/programs-surveys/popest/about/glossary/geo-terms.html>

<sup>&</sup>lt;sup>1</sup> For a list of states in each division, refer to <www.census.gov/programs-surveys/popest/about/glossary/geo-terms.html>.

<sup>&</sup>lt;sup>2</sup> Occupied housing units only.

<sup>&</sup>lt;sup>3</sup> An aging-ready home is defined as a housing unit that has a step-free entryway and both a bedroom and full bathroom on the first floor. Source: U.S. Census Bureau, 2019 American Housing Survey.

<sup>&</sup>lt;sup>2</sup> Occupied housing units only.

Source: U.S. Census Bureau, 2019 American Housing Survey.

Appendix Table 2.

#### Standard Errors for Households With Adults Aged 65 and Older Who Have Difficulty Using Home **Features**

(In percent)

	United	States	Region and division <sup>1</sup>								
	S.inca States		Northeast		Midwest		South			West	
Household characteristic	Millions	Percent	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
HOUSEHOLDS WITH ADULTS AGED 65 OR OLDER WHO HAD DIFFICULTY WITH:											
Entering the home. Getting to the bathroom Using the bathroom Getting to the bedroom Using the bedroom Using the kitchen. Using the kitchen.	101.5 123.4 99.8 115.7 91.6	0.32 0.27 0.33 0.27 0.31 0.24 0.30	1.26 1.14 0.75 0.69 0.85 0.62 1.14	1.07 0.75 0.88 0.67 0.84 0.63 0.86	0.78 0.51 0.62 0.44 0.52 0.46 0.66	0.99 S S S S S	0.76 0.62 0.72 0.62 0.67 0.60 0.71	1.49 1.12 1.67 1.11 1.64 1.13 1.27	1.03 0.80 1.08 0.70 0.80 0.72 0.89	0.73 0.65 1.09 0.69 0.90 0.61 0.82	0.72 0.55 0.60 0.55 0.66 0.49 0.63
Households With Adults Aged 65 or Older Who Had Difficulty With: One or more features	123.7	0.43 0.33 0.28	1.58 1.25 0.59	1.23 0.87 0.82	0.89 0.73 0.57	1.13 0.83 0.60	1.01 0.69 0.67	2.15 1.79 1.26	1.32 0.85 0.72	1.16 0.82 0.76	0.92 0.58 0.60
HOUSEHOLDS WITH ADULTS AGED 85 OR OLDER WHO HAD DIFFICULTY WITH: Entering the home. Getting to the bathroom Using the bathroom Using the bedroom. Using the bedroom. Using the bedroom. Using the kitchen. Using the kitchen.	63.8 71.2 56.5 64.7 48.6	1.37 1.15 1.26 1.04 1.19 0.90 1.19	5.06 4.40 3.28 1.98 3.72 2.17 3.95	4.20 3.56 3.82 3.04 3.98 2.96 4.10	2.42 1.80 2.28 1.64 2.11 2.14 2.03	4.00 3.51 2.11 3.51 2.00 3.24 2.34	3.25 2.53 2.96 2.33 2.21 2.20 2.81	6.12 5.26 5.72 5.26 7.59 4.87 6.30	4.78 3.23 2.82 2.74 3.38 2.42 2.64	3.34 2.57 4.65 2.51 2.53 2.51 3.28	2.96 2.74 3.02 2.73 2.84 2.57 2.85
Households With Adults Aged 85 or Older Who Had Difficulty With: One or more features	71.9	1.67 1.25 1.12	5.88 4.69 2.99	4.57 3.82 3.84	3.10 2.59 2.17	4.77 4.41 S	3.77 2.87 2.89	8.54 7.80 5.26	4.84 3.25 3.45	4.96 3.28 2.51	3.20 2.88 2.91

S The estimate is withheld because estimate did not meet publication standards.

¹ For a list of states in each division, refer to <www.census.gov/programs-surveys/popest/about/glossary/geo-terms.html>.

Source: U.S. Census Bureau, 2019 American Housing Survey.

Appendix Table 3.

## Standard Errors for Characteristics of Households With Adults Aged 65 and Older Who Have Difficulty Using Home Features

(In percent)

		Households with an older adult							
Characteristic	All households 65 and older	No difficulties	One or more difficulties	Three or more difficulties					
HOUSING CHARACTERISTICS									
Tenure									
Owned		0.50	1.92	2.80					
Rented	0.33	0.50	1.92	2.80					
Housing Type									
Single-family home	0.36	0.53	1.90	2.81					
Apartment building		0.45	1.78	2.68					
Mobile home	0.20	0.30	1.08	1.49					
Aging-ready home <sup>1</sup>	0.52	0.67	1.81	2.96					
DEMOGRAPHIC CHARACTERISTICS									
Median age of householder	0.09	0.15	0.56	0.94					
Sex of householder									
Female	0.46	0.69	1.98	2.80					
Male	0.46	0.69	1.98	2.80					
Race or Ethnicity of Householder <sup>2</sup>									
White alone	0.35	0.48	1.55	2.25					
Black alone	0.29	0.39	1.41	2.01					
Other	0.22	0.29	0.62	0.90					
Hispanic (any race)		0.35	1.17	2.09					
Foreign-born	0.26	0.41	1.30	2.08					
Household Living Arrangement									
Householder living alone	0.36	0.64	1.57	2.60					
Householder living with spouse	0.46	0.66	1.72	2.66					
Other arrangement	0.34	0.48	1.61	2.62					
ECONOMIC CHARACTERISTICS									
Householder's Education									
Some college or more		0.63	1.72	2.33					
High school diploma		0.43	1.54	2.64					
Less than a high school diploma	0.46	0.66	1.97	2.98					
Household Income-to-Poverty Ratio									
0 to 149 percent		0.52	1.63	3.15					
150 to 299 percent		0.52	1.82	2.57					
300 to 499 percent		0.54	1.54	2.21					
500 percent or higher	0.37	0.57	1.44	2.02					

<sup>&</sup>lt;sup>1</sup> An aging-ready home is defined as a housing unit that has a step-free entryway and both a bedroom and full bathroom on the first floor.

<sup>&</sup>lt;sup>2</sup> Other includes respondents who reported Asian alone, Native Hawaiian or Other Pacific Islander alone, American Indian or Alaska Native alone, and Two or More Races. Categories will not add to 100 percent because Hispanics may be of any race.

Source: U.S. Census Bureau, 2019 American Housing Survey.