SeniorMedRides.com

RESEARCH & INSIGHTS
FLAGSHIP RESEARCH REPORT

Senior Transportation Access Report

Walking Difficulty and Household Vehicle Access Among Older Adults in Eight U.S. Study Areas



Senior Transportation Access Report: Walking Difficulty and Household Vehicle Access Among Older Adults in Eight U.S. Study Areas

SeniorMedRides.com · Version 1.0 · Publication date: November 13, 2026 · Canonical URL: https://seniormedrides.com/research/senior-transportation-access/

Data: U.S. Census Bureau, American Community Survey (ACS) 2020–2024 5-year Public Use Microdata Sample (PUMS).[4] Study areas: Boise PUMA region, Las Vegas, Orlando, Phoenix, Sacramento, Salt Lake City, Stockton and Tampa.

At a glance

- An estimated **74,671** (±2,892) adults age 65 and older in eight U.S. study areas report serious difficulty walking or climbing stairs **and** live in a household with no vehicle (ACS 2020–2024 5-year estimates).
- Among older adults with serious walking difficulty, **13.5%** live in a household with no vehicle, compared with **4.5%** of those without walking difficulty: about three times as high. Adjusted for age, the shares are 11.94% ±0.45 and 4.84% ±0.14, a ratio of 2.47 ±0.11 (about 2.5 times).
- In every one of the eight study areas, the no-vehicle share is higher for older adults with walking difficulty than for those without it, before and after age adjustment.

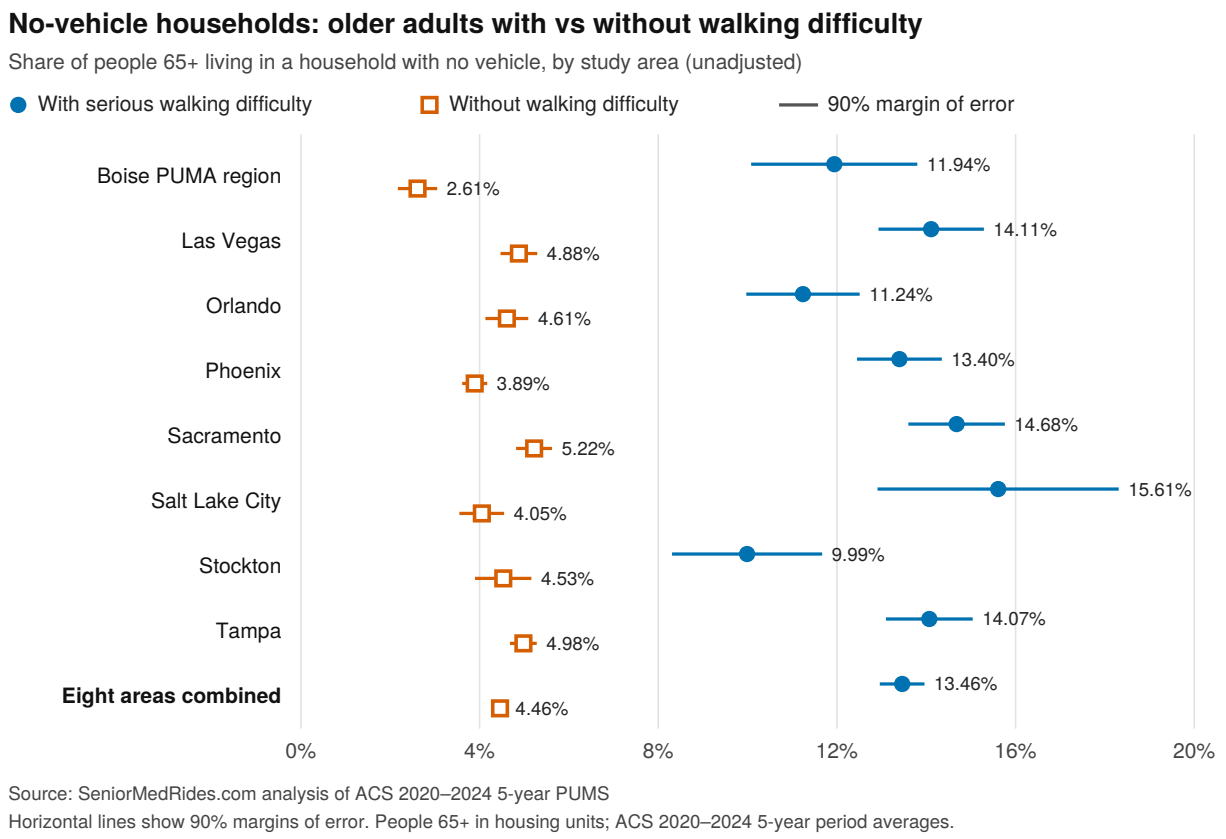
Figures are ACS 2020–2024 5-year estimates: period averages for 2020–2024, not single-year values. They cover people 65+ living in housing units; nursing homes and other group quarters are excluded. ± is the 90% margin of error. These estimates do not directly measure missed medical appointments, transportation demand, wheelchair use, or unmet transportation needs. Rounded figures are rounded from the two-decimal values in Table 1.

Summary

Census tables report walking difficulty and household vehicle availability separately. This report measures how often the two occur together, person by person, using Census microdata for eight U.S. study areas. An estimated 74,671 ±2,892 people age 65 and older living in housing units have serious difficulty walking or climbing stairs and live in a household with no vehicle. The report describes how common that combination is, how it differs by age, how each study area compares with the other seven combined, and how much of the difference between people with and without walking difficulty reflects age. These estimates do not directly measure missed medical appointments, transportation demand, wheelchair use, or unmet transportation needs.

Key findings

1. **74,671 older adults have both conditions.** Across the eight study areas, an estimated 74,671 ±2,892 people 65+ in housing units report serious walking difficulty and live in a household with no vehicle (Table 1, Figure 2).
2. **The no-vehicle share is higher with walking difficulty than without it.** 13.46% ±0.50 of older adults with serious walking difficulty live in a household with no vehicle, compared with 4.46% ±0.13 of those without it: a difference of 9.00 ±0.51 percentage points and a ratio of 3.02 ±0.14 (Figure 1, Table 1).
3. **Age explains part of the difference, not all of it.** People with walking difficulty are older on average, and no-vehicle households are more common at older ages. Directly standardized to the same age mix, the shares are 11.94% ±0.45 and 4.84% ±0.14: a difference of 7.10 ±0.46 points and a ratio of 2.47 ±0.11. The adjusted difference exceeds its 90% margin of error in all eight study areas (Table 2, Figure 3).[2]
4. **The relative difference is lower at 85+; the absolute difference is similar at every age.** The with-vs-without ratio is 3.07 ±0.24 at 65–74, 2.63 ±0.23 at 75–84 and 1.49 ±0.13 at 85+, while the difference is 6.97 ±0.62, 7.39 ±0.91 and 7.00 ±1.46 points. The ratio is lower at 85+ partly because living without a vehicle is much more common at that age: 17.41% ±0.71 of all people 85+, compared with 4.35% ±0.15 at 65–74 (Table 3, Figure 4).
5. **People 85 and older make up a large part of the group.** People 85+ are 10.28% ±0.18 of older adults in these areas but 37.1% of those with both walking difficulty and no household vehicle (27,719 ±1,651 of 74,671; point estimate, no margin of error computed for this share). 46.45% ±0.90 of people 85+ report serious walking difficulty.
6. **Study areas are not ranked; few differences between areas remain after adjustment.** On the age-standardized share of older adults with walking difficulty in a no-vehicle household, Stockton is the only study area that differs from the other seven combined after adjustment for multiple comparisons (lower). See "Comparing study areas".



Source: SeniorMedRides.com analysis of ACS 2020–2024 5-year PUMS
Horizontal lines show 90% margins of error. People 65+ in housing units; ACS 2020–2024 5-year period averages.

Figure 1. No-vehicle household share, people 65+ with vs without serious walking difficulty, by study area (unadjusted). Horizontal lines are 90% margins of error. Source: SeniorMedRides.com analysis of ACS 2020–2024 5-year PUMS. Data: `charts/data/fig1_with_without_by_area.csv`.

Terms used in this report

- **Walking difficulty:** 'Walking difficulty' is the ACS ambulatory difficulty item (serious difficulty walking or climbing stairs), self- or proxy-reported. It is a functional-difficulty measure, not a clinical diagnosis, and not a measure of wheelchair use.
- **No vehicle (household vehicle availability):** 'No vehicle' means the household has no car, van or truck (1 ton or less) kept at home for use by household members. It describes household vehicle availability. It does not show whether a person drives, and it is not a measure of transportation access or of unmet transportation need.
- **Transportation access and unmet transportation need:** Transportation access (whether people can reach the places they need by any means) and unmet transportation need (trips people need but cannot make) are not measured. The series name "Senior Transportation Access Report" names the topic of the research program, not the measure. In this report, "household vehicle access" means household vehicle availability as defined above.

Results by study area

Table 1 gives the unadjusted estimates and Table 2 the age-adjusted estimates. Study areas are listed in alphabetical order.

Table 1. With vs without walking difficulty, unadjusted

Study area	People 65+ with walking difficulty and no vehicle	No-vehicle share, with walking difficulty	No-vehicle share, without walking difficulty	Difference (points)	Ratio
Boise PUMA region	2,621 ±468	11.94% ±1.86	2.61% ±0.44	9.32 ±1.92	4.57 ±1.04
Las Vegas	11,666 ±1,007	14.11% ±1.18	4.88% ±0.41	9.23 ±1.27	2.89 ±0.35
Orlando	7,582 ±833	11.24% ±1.27	4.61% ±0.48	6.63 ±1.30	2.44 ±0.35
Phoenix	17,766 ±1,355	13.40% ±0.95	3.89% ±0.28	9.51 ±1.01	3.44 ±0.36
Sacramento	10,133 ±795	14.68% ±1.08	5.22% ±0.40	9.46 ±1.19	2.81 ±0.32
Salt Lake City	4,608 ±887	15.61% ±2.70	4.05% ±0.50	11.56 ±2.76	3.85 ±0.84
Stockton	2,545 ±469	9.99% ±1.68	4.53% ±0.63	5.46 ±1.73	2.20 ±0.46
Tampa	17,750 ±1,310	14.07% ±0.97	4.98% ±0.30	9.08 ±1.01	2.82 ±0.26
Eight areas combined	**74,671 ±2,892**	**13.46% ±0.50**	**4.46% ±0.13**	**9.00 ±0.51**	**3.02 ±0.14**

Table 2. With vs without walking difficulty, adjusted for age (direct standardization)

Study area	With walking difficulty	Without walking difficulty	Difference (points)	Ratio
Boise PUMA region	10.55% ±2.04	3.05% ±0.54	7.50 ±2.16	3.46 ±0.94
Las Vegas	13.43% ±1.18	5.18% ±0.44	8.25 ±1.27	2.59 ±0.32
Orlando	10.59% ±1.39	4.99% ±0.54	5.60 ±1.41	2.12 ±0.34
Phoenix	11.42% ±0.88	4.23% ±0.30	7.18 ±0.94	2.70 ±0.29
Sacramento	12.96% ±1.14	5.66% ±0.43	7.30 ±1.27	2.29 ±0.28
Salt Lake City	14.06% ±2.87	4.45% ±0.55	9.61 ±2.95	3.16 ±0.78
Stockton	8.73% ±1.69	5.01% ±0.69	3.72 ±1.74	1.74 ±0.39
Tampa	11.92% ±0.88	5.30% ±0.32	6.62 ±0.93	2.25 ±0.21
Eight areas combined	**11.94% ±0.45**	**4.84% ±0.14**	**7.10 ±0.46**	**2.47 ±0.11**

Shares in percent; ± is the 90% margin of error. Age-adjusted figures are directly standardized to the age mix of all people 65+ in the eight study areas combined (65–74, 75–84, 85+).[2] The eight-area row includes the Boise PUMA region. Every area's difference exceeds its margin of error, unadjusted and adjusted; these within-area statements are not adjusted for multiple comparisons. Ratios are less stable where the without-difficulty share is small (for example in the Boise PUMA region), so shares and differences are the better basis for local statements.

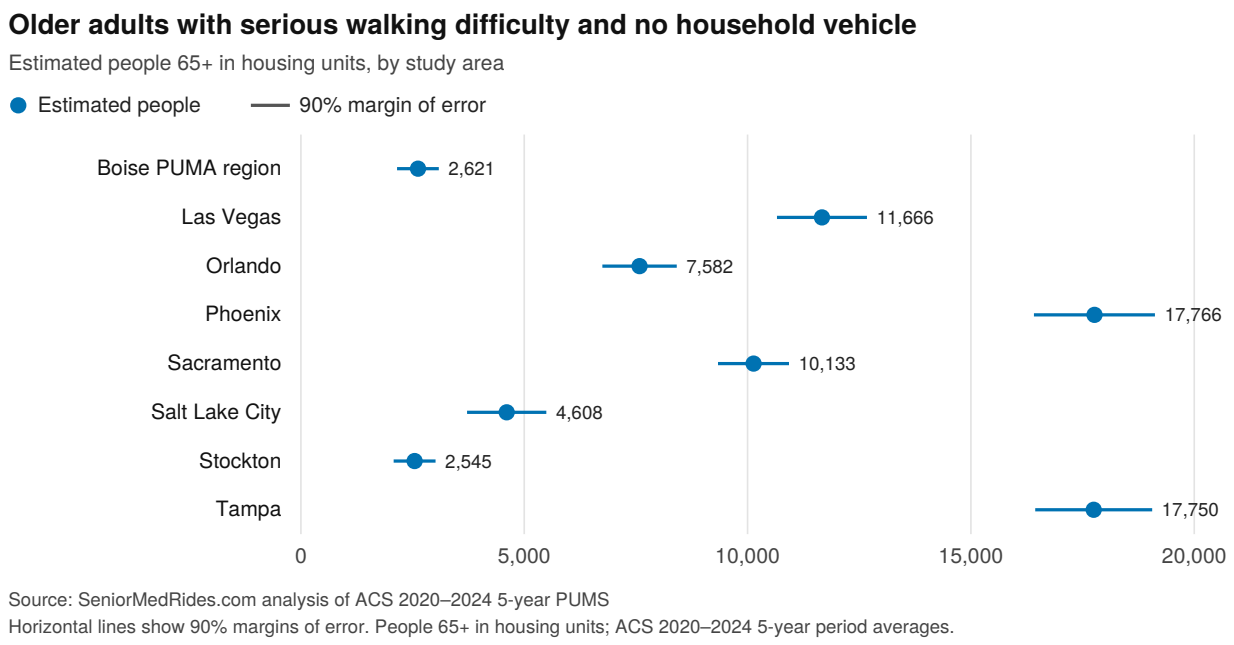


Figure 2. Estimated people 65+ with serious walking difficulty in a household with no vehicle, by study area. Counts mainly reflect population size. Source: SeniorMedRides.com analysis of ACS 2020–2024 5-year PUMS. Data: `charts/data/fig2_counts_by_area.csv`.

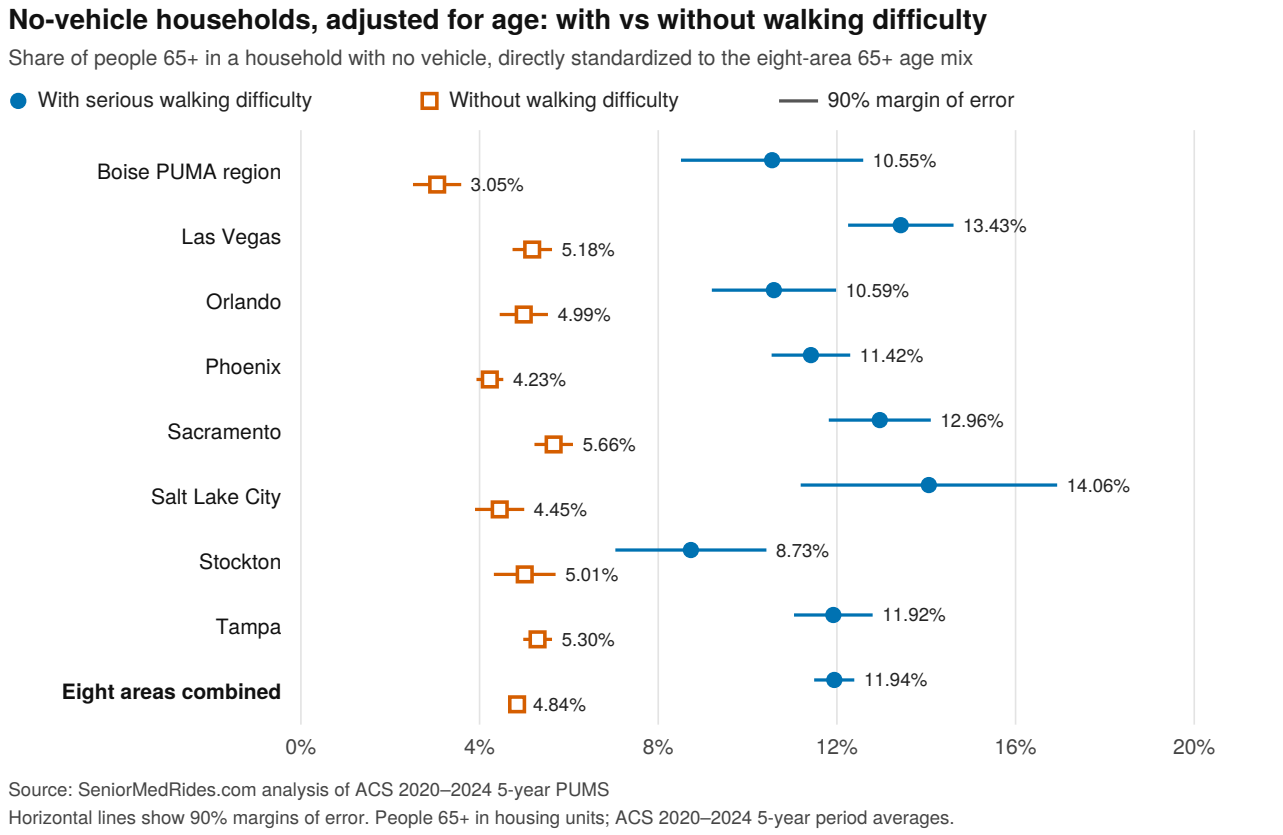


Figure 3. No-vehicle household share with vs without walking difficulty, directly standardized to the eight-area 65+ age mix. Source: SeniorMedRides.com analysis of ACS 2020–2024 5-year PUMS. Data: `charts/data/fig3_with_without_age_adjusted.csv`.

The age pattern

Table 3. Eight study areas combined, by age

Age	People with walking difficulty and no vehicle	With walking difficulty	Without walking difficulty	Difference (points)	Ratio
65–74	23,505 ±1,297	10.34% ±0.57	3.37% ±0.16	6.97 ±0.62	3.07 ±0.24
75–84	23,447 ±1,958	11.93% ±0.92	4.54% ±0.26	7.39 ±0.91	2.63 ±0.23
85+	**27,719 ±1,651**	**21.16% ±1.14**	**14.16% ±0.89**	**7.00 ±1.46**	**1.49 ±0.13**

At 85+, living without a vehicle is much more common for both groups, so the ratio is lower even though the difference in percentage points is not. Age-group cells for single study areas can be small; the fact sheets mark cells based on fewer than 50 sample records as indicative only.

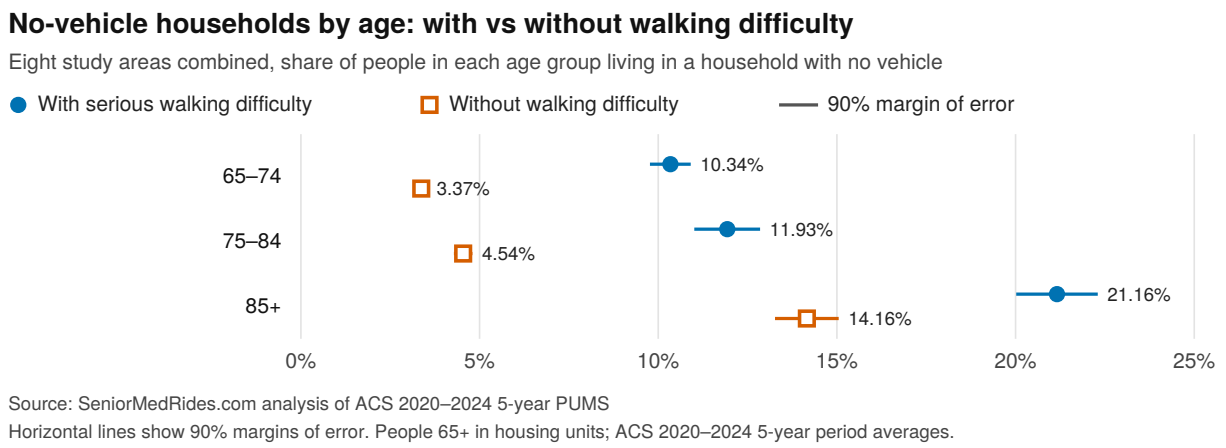


Figure 4. No-vehicle household share by age, with vs without walking difficulty, eight study areas combined. Source: SeniorMedRides.com analysis of ACS 2020–2024 5-year PUMS. Data: `charts/data/fig4_with_without_by_age.csv`.

Comparing study areas

Each study area is compared only with the other seven areas combined, using age-standardized measures. The comparison plan was written before any comparison test was run, but after the unadjusted estimates had been seen, so it is planned but not pre-registered. p-values are Holm-adjusted within each family of tests at a 10% familywise level (more lenient than the common 5%).[3]

Differences that remain after adjustment, each study area against the other seven combined (7 of 24 planned tests, age-standardized measures):

- Boise PUMA region, share of all older adults in a no-vehicle household: lower than the other seven areas combined (-1.95 ±0.54 points; Holm-adjusted p <0.001).
- Las Vegas, share of all older adults in a no-vehicle household: higher than the other seven areas combined (+0.95 ±0.44 points; Holm-adjusted p 0.00978).
- Phoenix, share of all older adults in a no-vehicle household: lower than the other seven areas combined (-0.91 ±0.34 points; Holm-adjusted p <0.001).
- Sacramento, share of all older adults in a no-vehicle household: higher than the other seven areas combined (+0.93 ±0.40 points; Holm-adjusted p 0.00311).
- Stockton, share of older adults with walking difficulty in a no-vehicle household: lower than the other seven areas combined (-3.37 ±1.72 points; Holm-adjusted p 0.0245).
- Stockton, part-vs-whole ratio: lower than the other seven areas combined (-0.43 ±0.22; Holm-adjusted p 0.0245).
- Tampa, share of all older adults in a no-vehicle household: higher than the other seven areas combined (+0.59 ±0.35 points; Holm-adjusted p 0.093). Borderline: this result remains only at the 10% familywise level used here and would not remain at 5%.

All other area-versus-rest comparisons are not distinguishable after adjustment and are not described as differences. The plan also included 28 pairwise tests between individual study areas; they are reported in the methodology and in `data/comparisons.csv` and are not presented as findings. The report does not order study areas by their estimates.

Supporting comparison: walking difficulty compared with all older adults

The primary comparison above contrasts two separate groups. A second, supporting comparison sets older adults with walking difficulty against all older adults, a group that includes them, so its contrast is smaller by construction (Table S1, Figure S1).

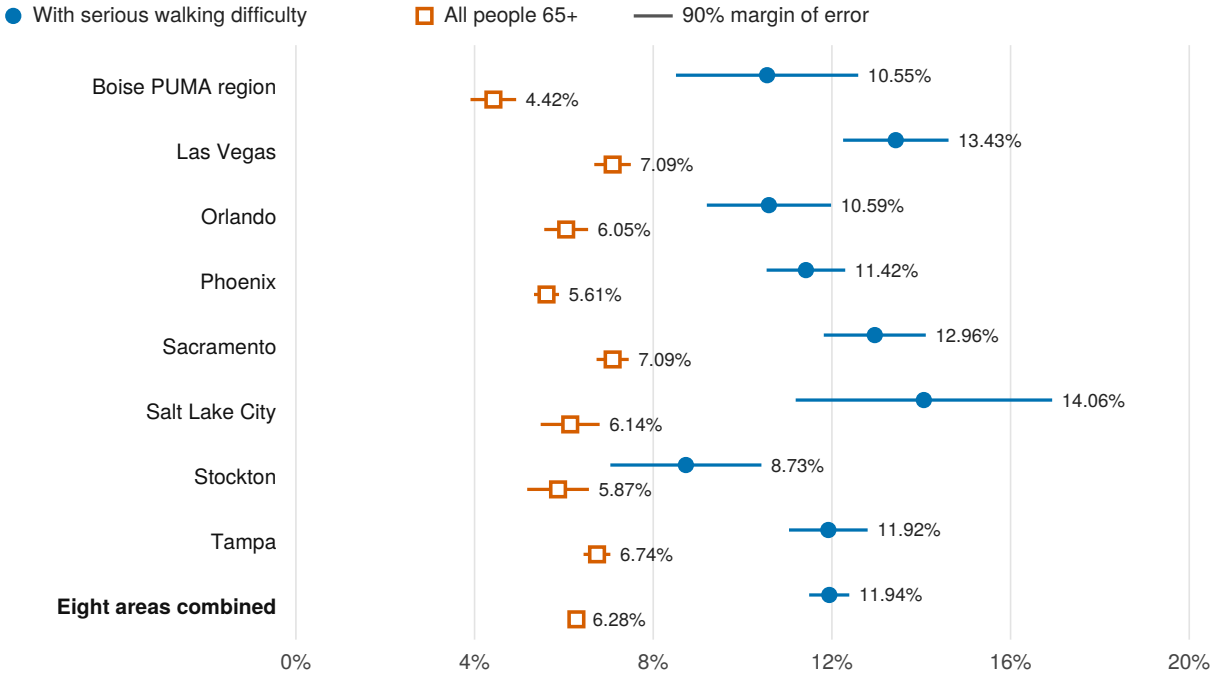
Table S1. Part-vs-whole comparison (unadjusted / age-standardized)

Study area	With walking difficulty	All people 65+	Ratio
Boise PUMA region	11.94% ±1.86 / 10.55% ±2.04	4.16% ±0.49 / 4.42% ±0.51	2.87 ±0.34 / 2.39 ±0.38
Las Vegas	14.11% ±1.18 / 13.43% ±1.18	6.96% ±0.41 / 7.09% ±0.41	2.03 ±0.14 / 1.89 ±0.14
Orlando	11.24% ±1.27 / 10.59% ±1.39	6.01% ±0.49 / 6.05% ±0.49	1.87 ±0.17 / 1.75 ±0.18
Phoenix	13.40% ±0.95 / 11.42% ±0.88	5.63% ±0.29 / 5.61% ±0.28	2.38 ±0.14 / 2.04 ±0.14
Sacramento	14.68% ±1.08 / 12.96% ±1.14	7.26% ±0.38 / 7.09% ±0.36	2.02 ±0.13 / 1.83 ±0.15
Salt Lake City	15.61% ±2.70 / 14.06% ±2.87	5.96% ±0.63 / 6.14% ±0.66	2.62 ±0.32 / 2.29 ±0.36
Stockton	9.99% ±1.68 / 8.73% ±1.69	5.88% ±0.68 / 5.87% ±0.69	1.70 ±0.20 / 1.49 ±0.21
Tampa	14.07% ±0.97 / 11.92% ±0.88	6.90% ±0.32 / 6.74% ±0.30	2.04 ±0.11 / 1.77 ±0.11
Eight areas combined	**13.46% ±0.50 / 11.94% ±0.45**	**6.28% ±0.15 / 6.28% ±0.15**	**2.14 ±0.06 / 1.90 ±0.06**

For the eight-area total, the age-standardized share among all people 65+ equals the unadjusted share by construction, because the standard is that same population. Against all older adults, the age-adjusted gap is above zero after Holm adjustment in 9 of 9 tests (one for each study area and one for the eight-area total). Data: `data/part_vs_whole.csv`.

Supporting view: walking difficulty compared with all older adults

Share in a household with no vehicle, age-standardized; the all-65+ group includes those with walking difficulty



Source: SeniorMedRides.com analysis of ACS 2020–2024 5-year PUMS
Horizontal lines show 90% margins of error. People 65+ in housing units; ACS 2020–2024 5-year period averages.

Figure S1. Supporting view: no-vehicle household share, people 65+ with walking difficulty vs all people 65+, age-standardized. Source: SeniorMedRides.com analysis of ACS 2020–2024 5-year PUMS. Data: `charts/data/fig5_supporting_part_vs_whole.csv`.

Context: published Census tables

Geography	People 65+ with walking difficulty (B18105)	Households with a householder 65+ and no vehicle (B25045)
Ada and Canyon counties, ID	16.84% ±0.84	5.98% ±0.64
Las Vegas	22.94% ±0.57	9.73% ±0.58
Orlando	21.27% ±0.68	8.71% ±0.62
Phoenix	18.96% ±0.38	7.66% ±0.34
Sacramento	22.13% ±0.55	9.89% ±0.55
Salt Lake City	16.69% ±0.67	8.14% ±0.74
Stockton	25.30% ±1.13	8.61% ±0.85
Tampa	**21.28% ±0.44**	**9.27% ±0.42**

ACS 2020–2024 5-year published tables. Published ACS tables B18105 (civilian noninstitutionalized people 65+) and B25045 (households with a householder 65+, counted as households, not people) use different universes from the PUMS estimates (people 65+ in housing units). They are shown as context only. For the Boise PUMA region, the published-table figures cover Ada and Canyon counties exactly, so they are not directly comparable.

What this report measures, and what it does not

- It measures how many people 65+ in housing units report serious difficulty walking or climbing stairs and live in a household with no vehicle, and how common that combination is.
- These estimates do not directly measure missed medical appointments, transportation demand, wheelchair use, or unmet transportation needs. They count people and shares. They also do not measure trips, Medicaid eligibility, service supply or capacity, or whether transportation services are adequate. A household without a vehicle may still get rides from family, friends, transit or paratransit.
- The universe is people age 65 and older living in housing units. People in nursing homes and other group quarters are excluded, so the counts are not totals for all older residents.
- All estimates use ACS 2020–2024 5-year data. They are period averages for 2020–2024, not values for any single year, and they include pandemic-era years.
- The estimates describe how often walking difficulty and a household without a vehicle occur together. They do not show that one leads to the other, in either direction.

Limitations

- **Uncertainty.** All figures are survey estimates. ± is the 90% margin of error: 1.645 times the standard error from the 80 ACS replicate weights (successive-difference replicate method).
- **Walking difficulty.** 'Walking difficulty' is the ACS ambulatory difficulty item (serious difficulty walking or climbing stairs), self- or proxy-reported. It is a functional-difficulty measure, not a clinical diagnosis, and not a measure of wheelchair use.
- **Household vehicle availability.** 'No vehicle' means the household has no car, van or truck (1 ton or less) kept at home for use by household members. It describes household vehicle availability. It does not show whether a person drives, and it is not a measure of transportation access or of unmet transportation need.
- **Geography.** Study areas are analyst-defined core counties, not official metropolitan areas, built as unions of 2020 Census PUMAs. Seven areas match their counties exactly. The Boise PUMA region is the six PUMAs covering Ada and Canyon counties, ID; these PUMAs also include parts of Gem, Owyhee, Payette and Washington counties, so the figures are not Ada plus Canyon county totals.
- **Age adjustment.** Age-adjusted figures use direct standardization: age-specific shares (65–74, 75–84, 85+) are weighted by the age mix of all people 65+ in housing units in the eight study areas combined (weights 0.591331, 0.305893 and 0.102776). Margins of error for adjusted figures come from the same replicate weights.
- **Comparisons between study areas.** Each study area is compared only with the other seven areas combined, using age-standardized measures. The comparison plan was written before any comparison test was run, but after the unadjusted estimates had been seen, so it is planned but not preregistered. p-values are Holm-adjusted within each family of tests at a 10% familywise level (more lenient than the common 5%). Only area-versus-other-seven differences that remain after adjustment are described in public materials. Pairwise results are listed in the methodology and `data/comparisons.csv` but are not described as findings. Overlapping estimates are not ordered.
- **Borderline result (Tampa).** Tampa's age-standardized share of all older adults in a no-vehicle household is higher than the other seven areas combined (+0.59 ±0.35 points; Holm-adjusted p 0.093). It remains only at the 10% familywise level and would not remain at 5%, so it is described as borderline and is not used in headlines or local summaries.

- **Small samples.** Age-group estimates based on fewer than 50 sample records are marked indicative only and should not be quoted on their own: Boise PUMA region 65–74 (n=33); Boise PUMA region 75–84 (n=34); Boise PUMA region 85+ (n=41); Stockton 65–74 (n=40). No area-level joint estimate is flagged.

- **Published-table context.** Published ACS tables B18105 (civilian noninstitutionalized people 65+) and B25045 (households with a householder 65+, counted as households, not people) use different universes from the PUMS estimates (people 65+ in housing units). They are shown as context only. For the Boise PUMA region, the published-table figures cover Ada and Canyon counties exactly, so they are not directly comparable.
- **Rounding.** Rounded figures (for example 13.5% and 4.5%) are rounded from the two-decimal estimates in the data files. Counts are rounded to whole people.

Geography

Study areas are core counties chosen for this study, not official metropolitan areas. Seven areas are exact unions of Census 2020 PUMAs within their counties. Boise is reported as the **Boise PUMA region**: the six PUMAs covering Ada and Canyon counties, which also include parts of Gem, Owyhee, Payette and Washington counties.[5] PUMA lists for every area are in `data/study_areas.csv`.

Methods in brief

Person records are linked to their household records in the ACS 2020–2024 5-year PUMS. Serious walking difficulty is `DPHY=1` (the ACS ambulatory difficulty item, "serious difficulty walking or climbing stairs"); no vehicle is household `VEH=0`. Estimates use person weights. 90% margins of error come from the 80 Census replicate weights using the successive-difference replicate method (MOE90 = 1.645 × SE).[1] Age-adjusted figures use direct standardization to the eight-area 65+ age mix.[2] Comparisons between study areas use two-sided z-tests with Holm adjustment within each family of tests at a 10% familywise level.[3] Full details, validation history and versioning: `methodology/methodology-v1.0.md`.

Data, license and reuse

Datasets (CSV) with a data dictionary are in `data/`: `joint_estimates.csv`, `with_without_contrast.csv`, `with_without_std.csv`, `with_without_by_age.csv`, `age_specific.csv`, `age_standardized.csv`, `part_vs_whole.csv`, `comparisons.csv`, `headline_figures.csv`, `standard_population.csv`, `study_areas.csv`, `acs_published_context.csv`, `cdc_places_context.csv` and `DATA_DICTIONARY.md`. Chart data are in `charts/data/`.

License. Original text, charts and other eligible material by SeniorMedRides.com: Creative Commons Attribution-ShareAlike 4.0 International (CC BY-SA 4.0), https://creativecommons.org/licenses/by-sa/4.0/. Adaptations must be shared under the same or a compatible license. Facts and estimates themselves are not subject to copyright. U.S. Census Bureau source data and other third-party material are not relicensed and remain under their own terms. Original research code: MIT License approved in principle; to be distributed separately after ownership and dependency review (pending).

How to cite

> SeniorMedRides.com. (2026). *Senior Transportation Access Report: Walking Difficulty and Household Vehicle Access Among Older Adults in Eight U.S. Study Areas* (Version 1.0). https://seniormedrides.com/research/senior-transportation-access/ https://doi.org/10.5281/zenodo.24210261
>
> Source data: U.S. Census Bureau, American Community Survey (ACS) 2020–2024 5-year Public Use Microdata Sample (PUMS). The Census Bureau has not reviewed, endorsed or certified this analysis or its findings. Figures are ACS 2020–2024 5-year period averages; ± is the 90% margin of error.

Chicago style: SeniorMedRides.com. *Senior Transportation Access Report: Walking Difficulty and Household Vehicle Access Among Older Adults in Eight U.S. Study Areas*. Version 1.0. SeniorMedRides.com, November 13, 2026. https://seniormedrides.com/research/senior-transportation-access/. https://doi.org/10.5281/zenodo.24210261.

Version note. Version 1.0. Publication date: November 13, 2026. Corrections will be logged with dates and before/after values. A new ACS vintage will be released as a new major version. Underlying analysis package: v1.1 (see methodology).

Study-area fact sheets

- Boise PUMA region: https://seniormedrides.com/research/senior-transportation-access/boise-puma-region/
- Las Vegas: https://seniormedrides.com/research/senior-transportation-access/las-vegas/
- Orlando: https://seniormedrides.com/research/senior-transportation-access/orlando/
- Phoenix: https://seniormedrides.com/research/senior-transportation-access/phoenix/
- Sacramento: https://seniormedrides.com/research/senior-transportation-access/sacramento/
- Salt Lake City: https://seniormedrides.com/research/senior-transportation-access/salt-lake-city/
- Stockton: https://seniormedrides.com/research/senior-transportation-access/stockton/
- Tampa: https://seniormedrides.com/research/senior-transportation-access/tampa/

Notes

[1] Standard errors use the successive-difference replicate method with the 80 ACS replicate weights: SE = $\sqrt{(4/80 \times \Sigma(X_r - X)^2)}$; MOE90 = 1.645 × SE. U.S. Census Bureau, American Community Survey 2020–2024 5-year PUMS accuracy statement, https://www2.census.gov/programs-surveys/acs/tech_docs/pums/accuracy/2020_2024AccuracyPUMS.pdf. ↩

[2] Direct standardization: standardized share = Σ (standard weight × age-specific share) over 65–74, 75–84 and 85+. Standard weights are the age mix of all people 65+ in housing units in the eight study areas combined: 0.591331, 0.305893 and 0.102776 (`data/standard_population.csv`). ↩

[3] Holm, S. (1979). A simple sequentially rejective multiple test procedure. Scandinavian Journal of Statistics, 6(2), 65–70. Holm-adjusted p-values are reported in `data/comparisons.csv`. ↩

[4] Source data: U.S. Census Bureau, American Community Survey (ACS) 2020–2024 5-year Public Use Microdata Sample (PUMS). The Census Bureau has not reviewed, endorsed or certified this analysis or its findings. ↩

[5] PUMAs were assigned with the Census 2020 tract-to-2020-PUMA relationship file, https://www2.census.gov/geo/docs/maps-data/data/rel2020/2020_Census_Tract_to_2020_PUMA.txt. ↩