# Briefing Report: Households with Multiple Persons with Disability in Pennsylvania

Prepared by the National Rehabilitation Research and Training Center on Family Support at the University of Pittsburgh



University of Pittsburgh.

# Executive Summary

In 2018, 13.1% of the U.S. population was disabled. This rate increases with age; it also varies by income and by race/ethnicity, with high rates of disability reported for Native Americans (16%) and Blacks (11%). Disability and family caregiving are closely intertwined. Since many individuals with disability reside in the community, family and friends are a pivotal source of support for individuals with disability. Most persons with disability live in the community, typically by themselves or with other family members.

While there are many detailed reports on disability in the United States, very little attention has been paid to households with multiple persons with disabilities. These households are the focus of this report. Following the Executive Summary, we include information on detailed methods and results, describing both individual- and household-level disability data. We used Pennsylvania American Community Survey (ACS) census data from 2014 to 2018 to examine this underrepresented group, but our findings are broadly generalizable to other states and to the United States as a whole.

## HIGHLIGHTS

- **Pennsylvania has an estimated 250,000 households with two or more persons with disability in the same household (approximately 5% of all households). Little is known about these living situations.**
- **Persons with disability in these households are typically of similar age and have combinations of ambulatory, independent living and cognitive disabilities.**
- **More than half (approximately 60%) of these households do not have a nondisabled adult in the home to provide caregiving support.**

## KEY FINDINGS

- 14.7% of the population of Pennsylvania has one or more disabilities. This is slightly higher than the national rate of 12.8%, in part due to the larger proportion of older adults in Pennsylvania. Although disabilities occur at all ages, they increase with age, with the highest prevalence rates in old age (65+).
- Of the approximately 5 million households in Pennsylvania, 1.1 million or 22% of households have one person with disability in the household, 5% have two or more persons with disability, and 4% (219,000 households) contain two individuals with disability.
- In households with two persons with disability, their ages are roughly similar: 35% of households contain two persons with disability who are both aged 18-64; 30% of households contain two persons with disability who are both aged 65 and over. A small percentage of households (1%) contain one person with disability aged 17 and under and a second person aged 65 and over.
- Patterns of disabilities within households vary widely. The most common combination of disabilities (38% of households with two persons with disability) included one person with an independent living disability and another with a walking disability.

- Among households with two persons with disability, 60% (131,556 households) had no individual 18 years or older without a disability who might serve as a support person. An estimated 55,588 of the households (25.3%) with two or more persons with disability contain one individual without a disability who might serve as a support person.
- In the 10,975 households with two individuals with self-care disabilities, 60% (7,070 households) have no one else in the household who might serve as a support person. Similarly, in the 47,439 households where both individuals had difficulty walking, 71% have no other person in the household to provide support. For the 24,594 households where both individuals had cognitive disabilities, 51% had no other person in the household to provide support.

## CONCLUSIONS AND FUTURE DIRECTIONS

Examining disability in households with multiple persons with disability raises important new questions about the role of formal and informal support for these households. Are households with multiple people with disabilities adequately supported? What forms of external support are most helpful? What unique challenges are raised when family caregivers provide support for multiple individuals with disabilities simultaneously and from a different household? What factors are associated with successful independent living in these households, and what factors place dyads at higher risk? Our report summarizes the prevalence of these households, but more fine-grained assessments will be required to better understand the unique needs of this understudied population.



# Detailed Methods and Results

The information in this report is based on data collected by the U.S. Census Bureau as part of ACS. Unlike the every-10-year U.S. Census, this survey is carried out every year by randomly sampling addresses in every state, the District of Columbia, and Puerto Rico. ACS data provide up-to-date statistics used by local, state and national government agencies to decide what services are needed, where to locate them and how to allocate resources.

Unless otherwise noted, results here reflect estimates created from the Census Bureau's ACS Public Use Microdata Sample (PUMS) data. The ACS PUMS data include separate data files for persons and households. ACS estimates and PUMS data are distributed for both one-year and five-year aggregations of survey responses. In this report, we use the 2014-18 five-year ACS data for the Commonwealth of Pennsylvania. It includes records for 639,773 persons in 319,602 households. These data are used to generate estimates for the entire population of the commonwealth (12,791,181) living in 5,025,140 households. Person files were matched to household files for calculation of within-household patterns of disabilities.

The primary focus of this report is on disability rates by persons and by household. Six types of disability are assessed by ACS: hearing, vision, self-care, ambulatory, cognitive and independent living. Specific questions used to assess disability are listed below. Note that the single-item questions used to assess disability are different from the more-detailed assessments used to assess activities of daily living (ADL) and instrumental activities of daily living (IADL) in other national surveys. Also note that a single ACS respondent provides both self-reports and proxy reports on disability for other household members in multiperson households.

### ACS Disability Types and Questions

| Disability Type | ACS Question | Eligible Population |
|---|---|---|
| **Hearing** | Is this person deaf or does he/she have serious difficulty hearing? | All Ages |
| **Vision** | Is this person blind or does he/she have serious difficulty seeing even when wearing glasses? | All Ages |
| **Self-care** | Does this person have difficulty dressing or bathing? | Age 5 and Over |
| **Ambulatory** | Does this person have serious difficulty walking or climbing stairs? | Age 5 and Over |
| **Cognitive** | Because of a physical, mental or emotional condition, does this person have serious difficulty concentrating, remembering or making decisions? | Age 5 and Over |
| **Independent Living** | Because of a physical, mental or emotional condition, does this person have difficulty doing errands alone, such as visiting a doctor's office or shopping? | Age 18 and Over |

Ref: Brault, M. (2009) Review of Changes to the Measurement of Disability in the 2008 American Community Survey. Washington, DC: U.S. Census Bureau. Retrieved from http://www.census.gov/hhes/www/disability/2008ACS_disability.pdf.

## THE CONTEXT: INDIVIDUAL-LEVEL DISABILITY PREVALENCE IN PENNSYLVANIA

We begin by looking into disability prevalence in Pennsylvania at the individual level. Table 1 shows that 15% of Pennsylvania residents have at least one disability, and 7% have two or more disabilities.

**Table 1.**
The Number and Percent of Population with 0 to 6 Disabilities

| Number of Disabilities | Count | Percent |
|---|---|---|
| 0 | 10,904,923 | 85.3% |
| 1 | 961,244 | 7.5% |
| 2 | 407,012 | 3.2% |
| 3 | 255,197 | 2.0% |
| 4 | 172,537 | 1.3% |
| 5 | 65,850 | 0.5% |
| 6 | 24,418 | 0.2% |
| **Total** | **12,791,181** | **100%** |

We also found that disability rates increase with age. Approximately 36% of older adults (age 65 and older) have at least one disability, while only 5% of persons age 17 and under have at least one disability, as seen in Table 2.

**Table 2.**
Number and Percent of Population with 0 to 6 Disabilities by Age

| Number of Disabilities | Age 17 and Under Count | Percent | Age 18-64 Count | Percent | Age 65 and Over Count | Percent |
|---|---|---|---|---|---|---|
| 0 | 2,528,115 | 94.5% | 6,955,069 | 88.2% | 1,421,739 | 63.8% |
| 1 | 108,246 | 4.0% | 502,477 | 6.4% | 350,521 | 15.7% |
| 2 | 25,660 | 1.0% | 216,368 | 2.7% | 164,984 | 7.4% |
| 3 | 7,613 | 0.3% | 118,764 | 1.5% | 128,820 | 5.8% |
| 4 | 2,779 | 0.1% | 67,371 | 0.9% | 102,387 | 4.6% |
| 5 | 1,327 | 0.0% | 20,938 | 0.3% | 43,585 | 2.0% |
| 6 | 256 | 0.0% | 6,781 | 0.1% | 17,381 | 0.8% |
| **Total** | **2,673,996** | **100%** | **7,887,768** | **100%** | **2,229,417** | **100%** |

At the individual level, disability rates vary by age. The prevalence of all types of disability is higher among individuals ages 65 and over. Table 3 describes the prevalence of each type of disability in the population, both by count and percent.

**Table 3.**
Number and Percent of Population with Different Types of Disability

| Disability Type | Count | Percent | Eligible Population |
|---|---|---|---|
| **Hearing** | 486,292 | 3.9% | All Ages 12,604,311 |
| **Vision** | 301,577 | 2.4% | All Ages 12,604,311 |
| **Self-care** | 330,641 | 2.8% | Age 5 and Over 11,904,059 |
| **Ambulatory** | 877,987 | 7.4% | Age 5 and Over 11,904,059 |
| **Cognitive** | 700,777 | 5.9% | Age 5 and Over 11,904,059 |
| **Independent Living** | 650,900 | 6.5% | Age 18 and Over 9,965,214 |



## DISABILITY WITHIN HOUSEHOLDS

When examining disability at the household level, we found that 27% of all households include at least one person with a disability and just a little more than 4% contain two individuals with disabilities, as seen in Table 4.

**Table 4:**
Pennsylvania Households by Total Number of Individuals with Disabilities

| Number of Persons with a Disability in Household | Count | Percent |
|---|---|---|
| 0 | 3,650,411 | 72.6% |
| 1 | 1,121,052 | 22.3% |
| 2 | 219,030 | 4.4% |
| 3 | 27,067 | 0.5% |
| 4 | 5,502 | 0.1% |
| 5 | 1,489 | 0.0% |
| 6 | 339 | 0.0% |
| 7 | 176 | 0.0% |
| 8 | 43 | 0.0% |
| 16 | 31 | 0.0% |
| **Total** | **5,025,140** | **100%** |

Notes: ACS 2014-18 PUMS. Disabilities summed by person records. Households weighted by household weight (WGTP).

Within the households that contain two individuals with disabilities, 35% contain two people with disabilities who are both aged 18-64 and 30% contain two people with disabilities who are both age 65 and older. A small percentage (1%) contain one person with a disability age 17 and under and another person age 65 and over. These breakdowns can be seen in Table 5.

**Table 5.**
**Age Distribution of Persons with Disability in Households with Two Persons with One or More Disabilities**

| | Person 2 Age 17 and Under | Person 2 Age 18-64 | Person 2 Age 65 and Over |
|---|---|---|---|
| Person 1 Age 17 and Under | 7,231<br>3.3% | | |
| Person 1 Age 18-64 | 26,494<br>12.1% | 75,651<br>34.5% | |
| Person 1 Age 65 and Over | 2,038<br>0.9% | 42,485<br>19.4% | 65,131<br>29.7% |

Again, at the household level, we looked into the patterns of disability for those households containing two people with disabilities. These findings are summarized in Table 6. For example, the top leftmost cell shows that in 5% of households, both individuals with disabilities had a self-care disability. In the most common paired disabilities (38% of households containing two people with disabilities), one person had an ambulatory disability and the other person had an independent living disability. Note that the percentages in the cells below exceed 100% because a person can have more than one disability and, therefore, can appear in more than one cell.

**Table 6.**
**Type of Disability for Each Person in Households with Two Persons with Disabilities—Count and Percent of Households**

| | Second Person Self-care | Second Person Hearing | Second Person Vision | Second Person Independent Living | Second Person Ambulatory | Second Person Cognitive |
|---|---|---|---|---|---|---|
| First Person Self-care | 10,975<br>5.0% | | | | | |
| First Person Hearing | 21,913<br>10.0% | 20,960<br>9.6% | | | | |
| First Person Vision | 13,981<br>6.4% | 25,330<br>11.6% | 15,453<br>7.1% | | | |
| First Person Independent Living | 32,841<br>15.0% | 40,662<br>18.6% | 27,109<br>12.4% | 34,838<br>15.9% | | |
| First Person Ambulatory | 42,830<br>19.6% | 65,354<br>29.8% | 38,568<br>17.6% | 83,033<br>37.9% | 66,731<br>30.5% | |
| First Person Cognitive | 32,620<br>14.95% | 38,251<br>17.5% | 32,237<br>14.7% | 64,768<br>29.6% | 82,122<br>37.5% | 48,384<br>22.1% |

For those households containing two people with disabilities, we looked at the number of

nondisabled members of the household to assess whether those households contain any individuals who may serve as an additional support person or family caregiver. We found that in 60% of these households (131,556 households), no nondisabled adult (18 or over) resided in the home. An estimated 55,588 (25.3%) households had a single nondisabled individual residing in the home.

**Table 7.**
**Number of Persons with Disability in Household of any Age by Number of Persons without Disability in Same Household age 18+**

| | Number with Disability 0 | Number with Disability 1 | Number with Disability 2 | Number with Disability 3 | Number with Disability 4 | Number with Disability >4 | Total |
|---|---|---|---|---|---|---|---|
| Number without Disability 0 | 225 | 432,963 | 131,556 | 12,977 | 3,165 | 1,179 | **582,065** |
| Number without Disability 1 | 1,252,724 | 456,552 | 55,588 | 8,794 | 1,430 | 601 | **1,775,689** |
| Number without Disability 2 | 1,917,145 | 167,877 | 24,221 | 3,780 | 726 | 137 | **2,113,886** |
| Number without Disability 3 | 348,168 | 48,955 | 5,695 | 1,022 | 168 | 72 | **404,080** |
| Number without Disability 4 | 105,346 | 11,787 | 1,447 | 412 | 6 | 25 | **119,023** |
| Number without Disability >4 | 26,803 | 2,918 | 523 | 82 | 7 | 64 | **30,397** |
| **Total** | **3,650,411** | **1,121,052** | **219,030** | **27,067** | **5,502** | **2,078** | |

Finally, we looked into the types of disabilities present in the households that contained two individuals with disabilities and no nondisabled members. The distribution of types of disabilities can be seen in Table 8. For example, in households that contain two individuals with self-care disabilities, 7,070 of those households (or 64%) contain no nondisabled members.

**Table 8.**
**Type of Disability for Each Person Living in Households with Two Individuals with Disability and No Nondisabled Individual Residing in the Home**

| | Second Person **Self-care** | Second Person **Hearing** | Second Person **Vision** | Second Person **Independent Living** | Second Person **Ambulatory** | Second Person **Cognitive** |
|---|---|---|---|---|---|---|
| First Person **Self-care** | 7,070<br>64.4% | | | | | |
| First Person **Hearing** | 15,061<br>68.7% | 14,891<br>71.0% | | | | |
| First Person **Vision** | 9,277<br>66.4% | 17,734<br>70.0% | 10,287<br>66.6% | | | |
| First Person **Independent Living** | 20,673<br>62.9% | 27,793<br>68.4% | 17,594<br>64.9% | 21,369<br>61.3% | | |
| First Person **Ambulatory** | 28,634<br>66.9% | 47,959<br>73.4% | 26,989<br>70.0% | 54,221<br>65.3% | 47,439<br>71.1% | |
| First Person **Cognitive** | 18,467<br>56.6% | 23,154<br>60.5% | 20,043<br>62.2% | 36,826<br>56.9% | 49,611<br>60.4% | 24,594<br>50.8% |

For questions or additional information on this report, please contact Scott Beach at caregiving@pitt.edu. To learn more about the National Rehabilitation Research and Training Center on Family Support at the University of Pittsburgh, visit **caregiving.pitt.edu**.

University of Pittsburgh.

4200 Fifth Avenue
Pittsburgh, PA 15260

412-624-4141
pitt.edu

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