

State-level estimates: A tool for eliminating disparities in access to assistive technology (AT)

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AT Data Collection Project: State Estimates

- Part of 4 year NIDRR-funded project to create Web-based reporting system on State Projects that are funded by the Assistive Technology Act of 1998 (AT Act)
- Compile, estimate, and summarize data on AT at the state level to create state profiles
- In each state, identify groups with disparities in access to AT, so that projects can target those with greatest need

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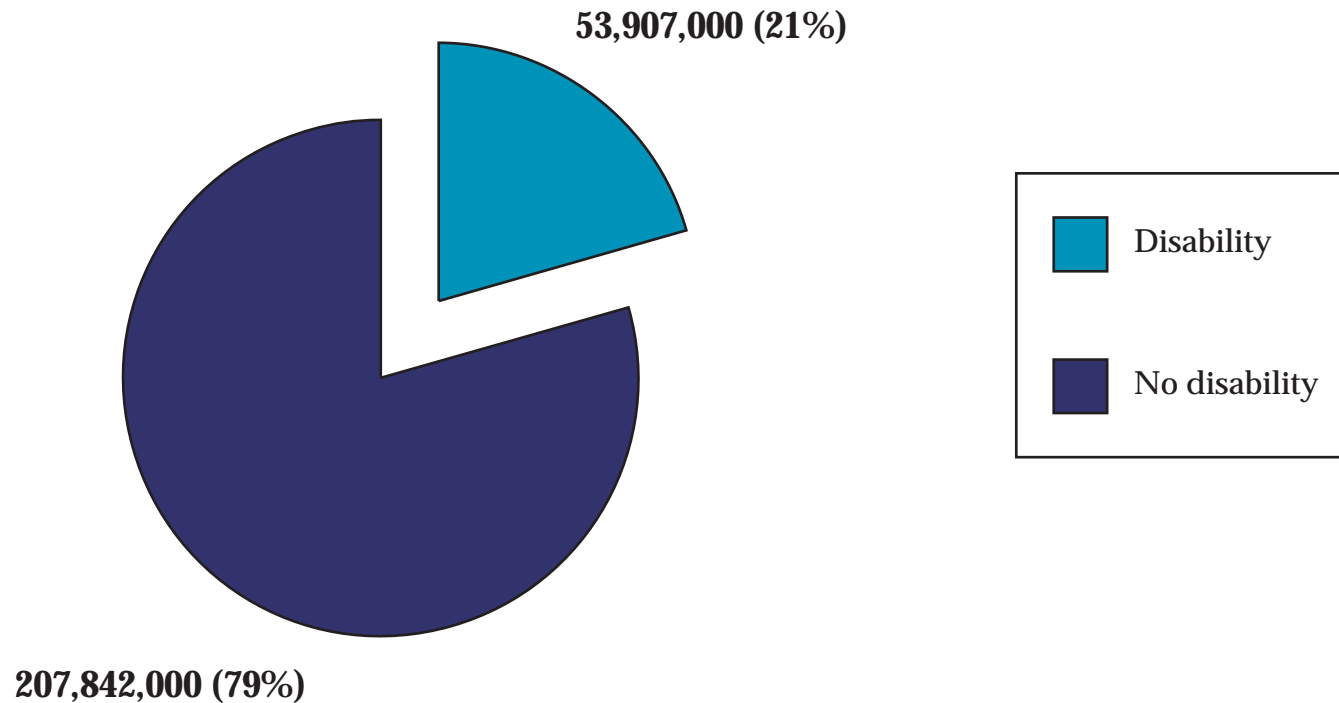
Assistive Technology: Definition and need

- AT broadly defined in the AT Act:
 - AT devices include any item, piece of equipment, or product system that is used to increase, maintain, or improve functional capacities of individuals with disabilities
- Need for AT varies across the life cycle and for people with different kinds of disabilities
- Not “one size fits all:” People need AT appropriate to their specific capabilities, tasks, and environments

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One in five Americans has a disability.



Americans with disability

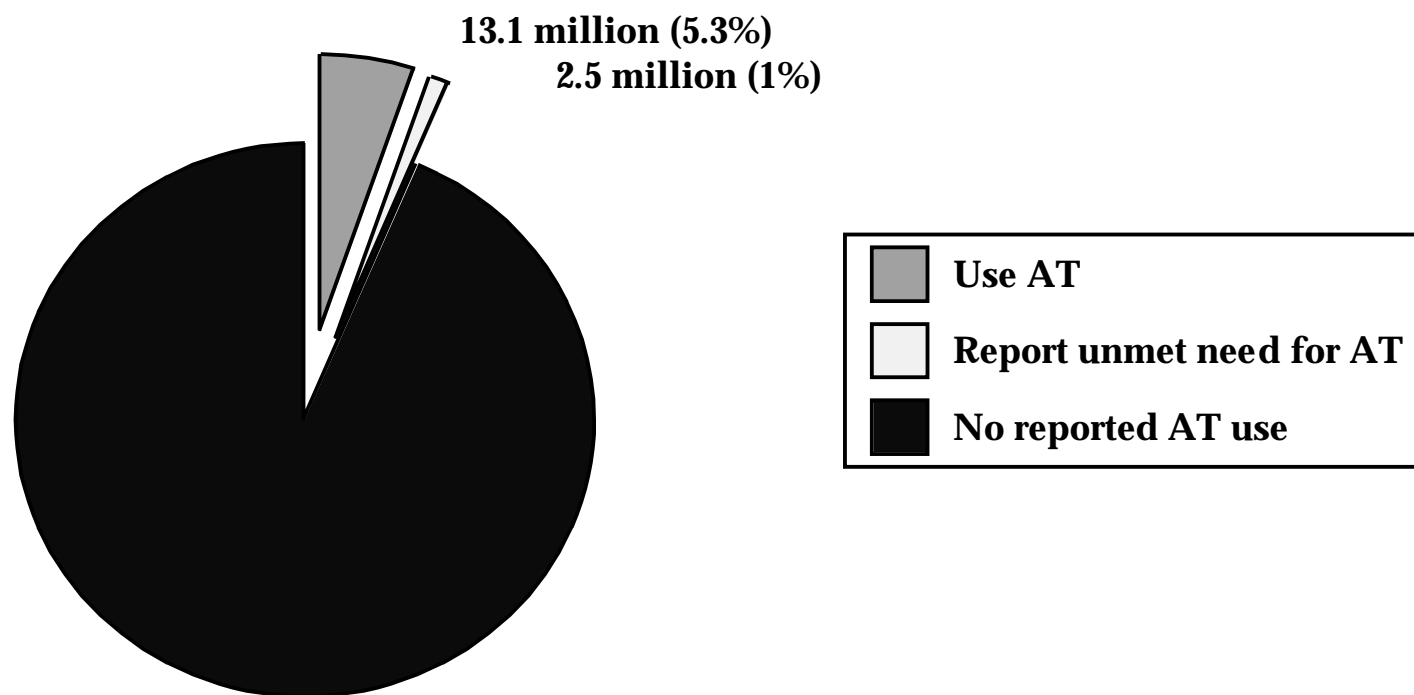
Source: McNeil (1997)

Survey: SIPP, 1994-95

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In 1990, only 5% of the population (about 1/4 of people with disabilities) used any AT.



Prevalence of assistive devices

Source: LaPlante, Hendershot, & Moss (1997)

Survey: NHIS-AT supplement, 1990

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Estimates based on national surveys tell part of the AT story.

- 7.4 million people use mobility devices
 - 4.8 million people use canes
 - 1.8 million people use walkers
 - 1.6 million people use wheelchairs
- 4.6 million people use anatomical devices such as back, neck, leg and arm braces & artificial limbs
- 4.2 million people use hearing devices
- Over half a million people use vision devices (white canes, telescopic lenses, Braille or computer aids)

Source: NCHS website

Survey: NHIS, 1994

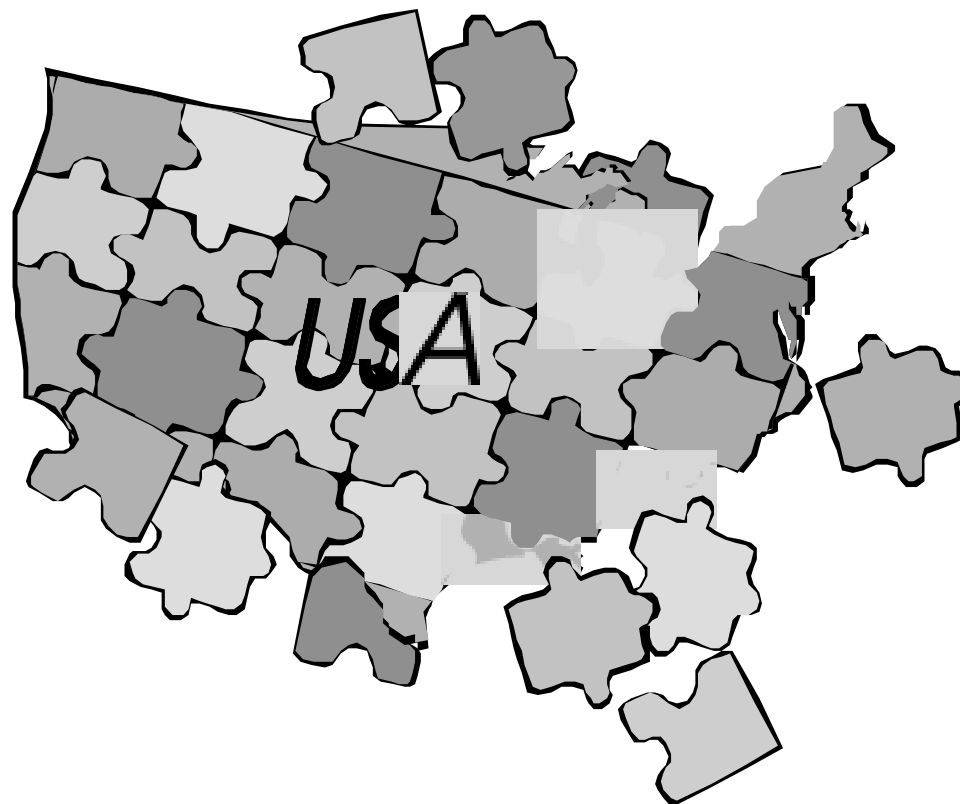
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But national statistics do not capture complexity of AT use & need at the state level.

- Current surveys ask people about most common AT devices and do not capture broad range of AT from low tech to high tech
- Relative infrequency of AT use makes it difficult to get state-level estimates (small cell size)
- States vary greatly on demographics that affect AT use and need
 - Poverty
 - Age groups (Children, working age adults, seniors)
 - Ethnic minorities
 - Disability rates

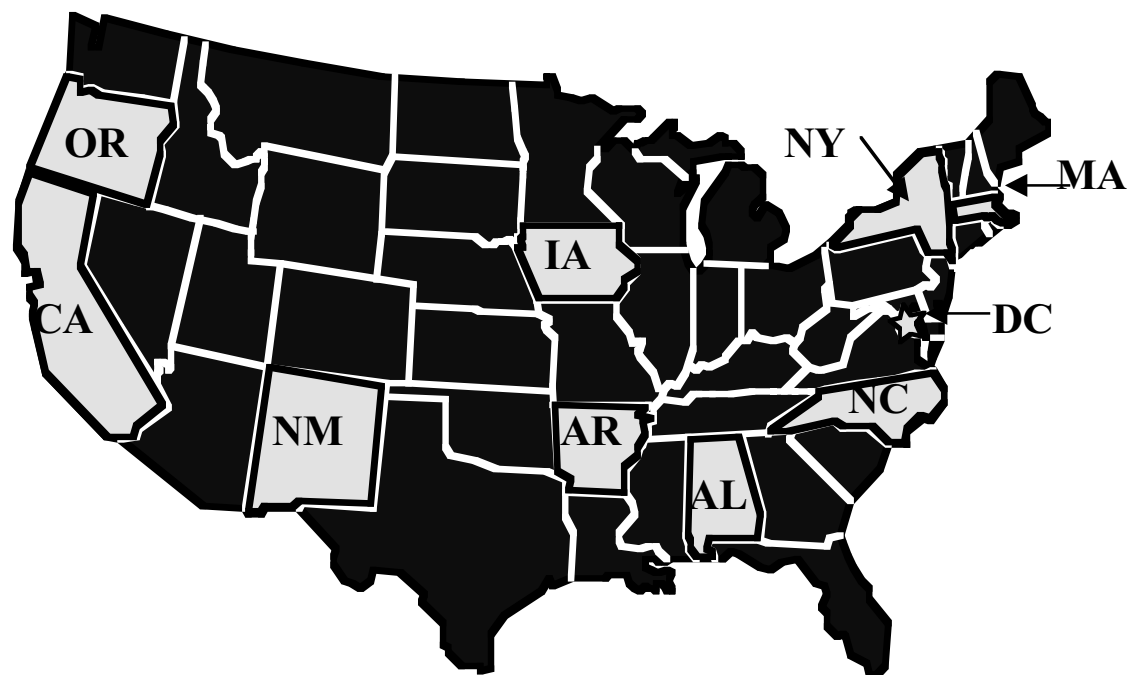
AT Data Collection Project: Gathering the pieces to put together the puzzle



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Start with data from 10 sample states



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Goal: Draw from many sources to capture demographic differences in AT use and need

General to specific estimates all provide some data:

- State population demographics
 - Overall disability prevalence
 - Specific disability populations
 - AT use (low tech to high tech)

Pre-
school
children

School-age
children

Working-
age adults

Seniors

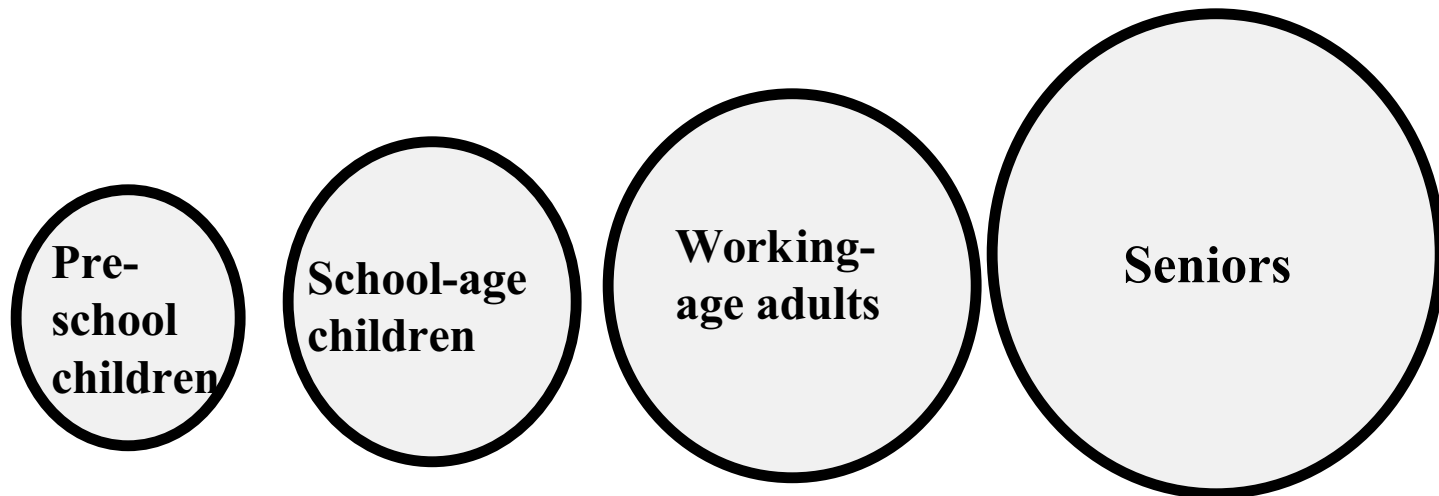
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What do state population demographics tell us about AT use and access?

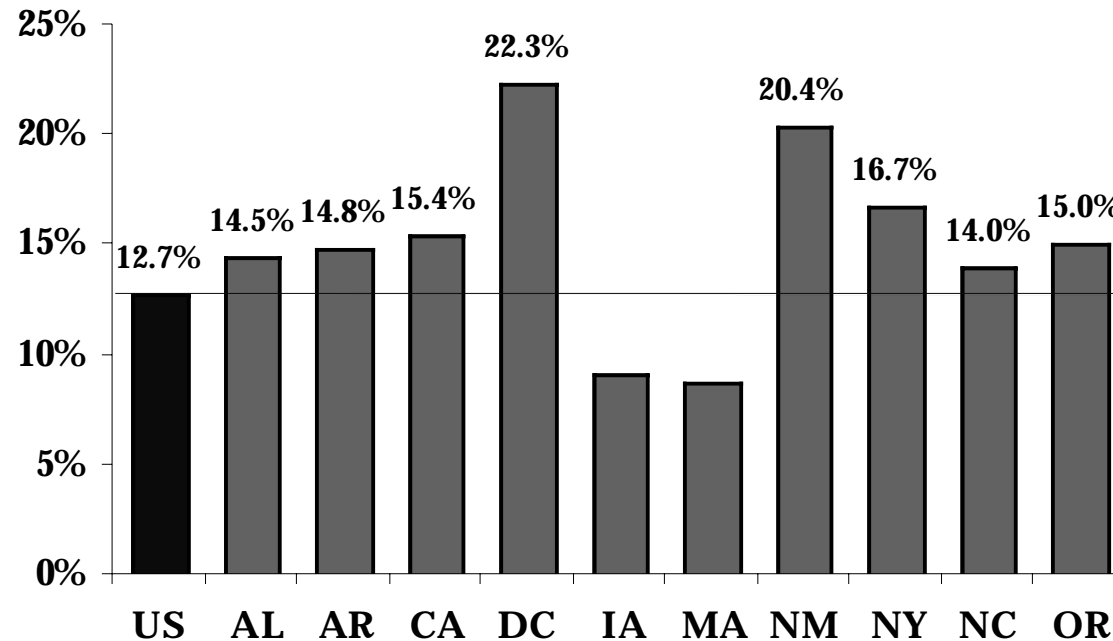
> State population demographics

- Overall disability prevalence
- Specific disability populations
 - AT use (low tech to high tech)



Poor people have more disability and less access to AT.

Percentage of population below poverty level



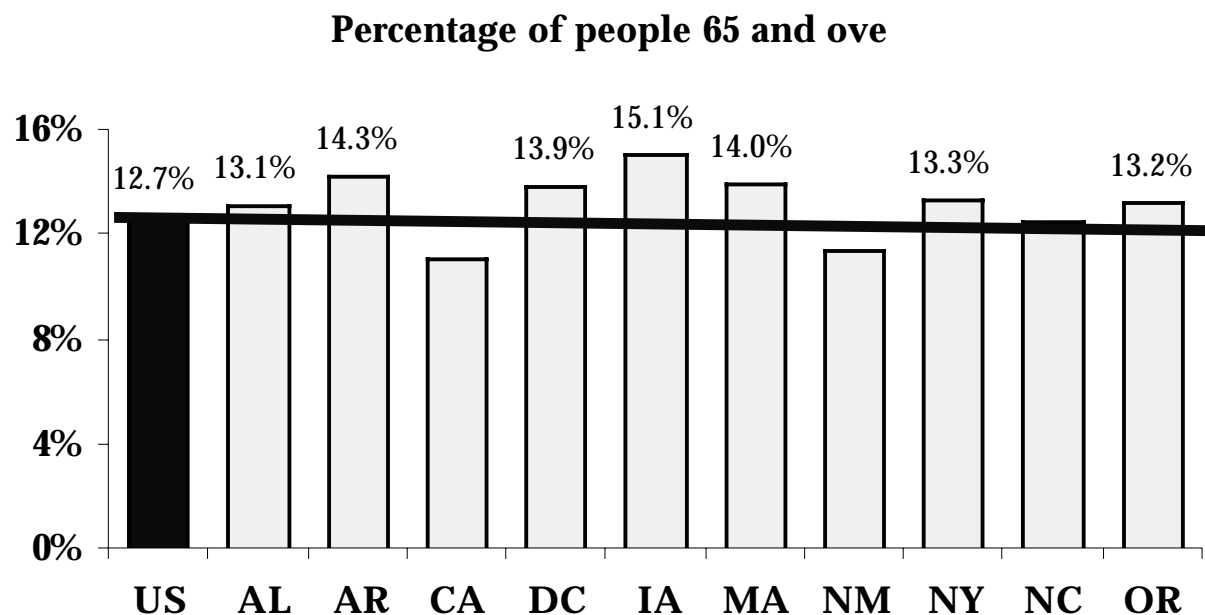
U.S. Census state population estimates, 1998

Source: US Census Website

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It is important to target seniors' AT needs, especially in states with more elders.



U.S. Census state population estimates, 1998

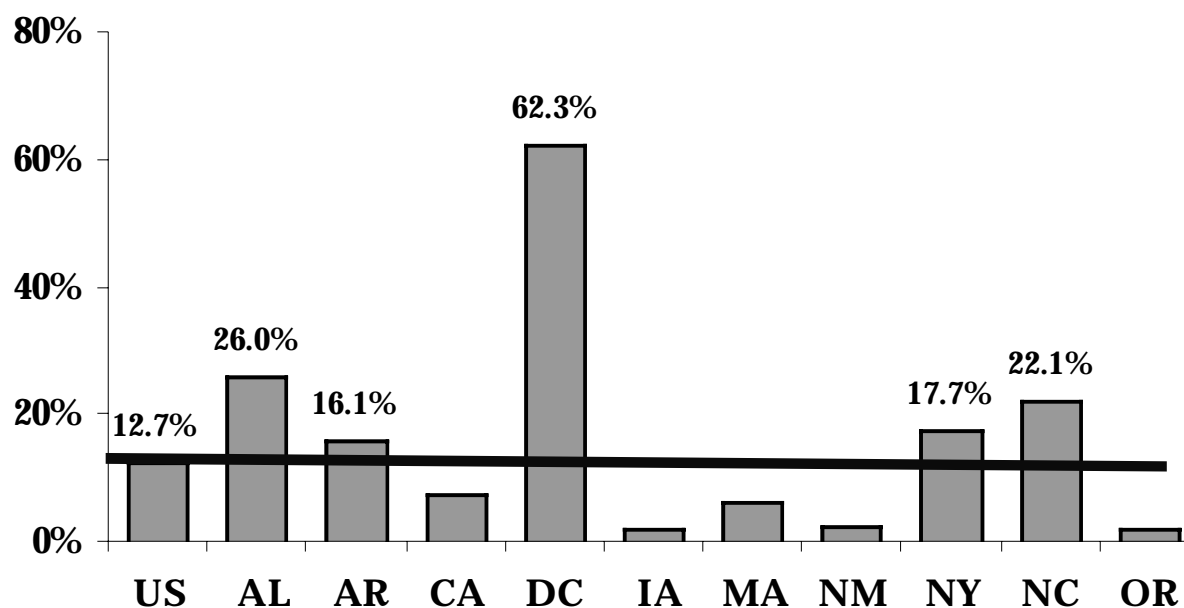
Source: US Census Website

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The percentage of African-Americans varies greatly from state to state.

Percentage of African-American people



U.S. Census state population estimates, 1998

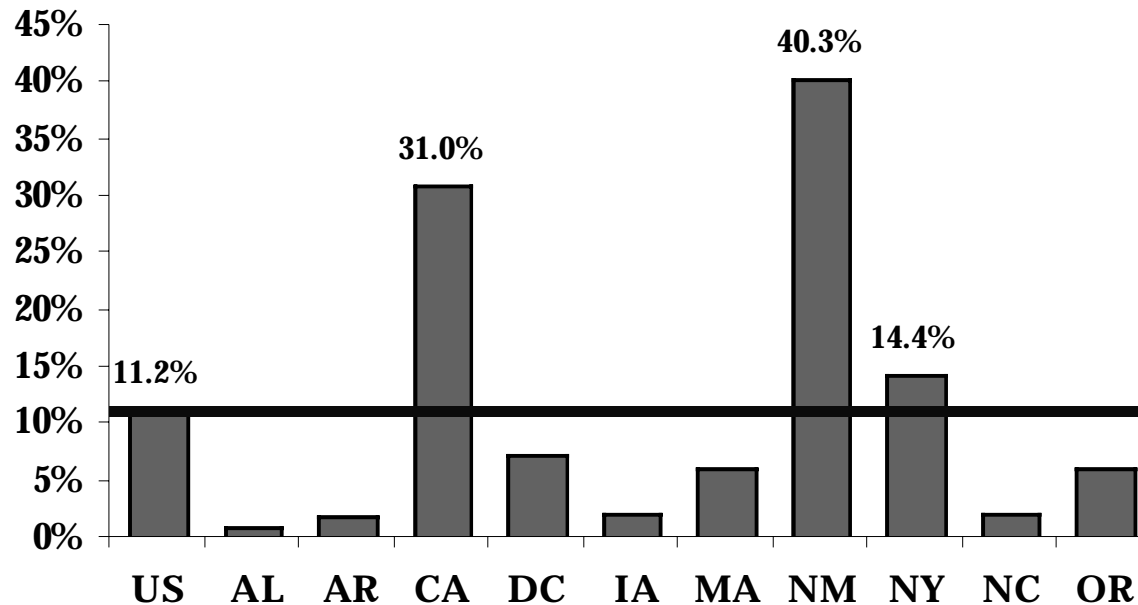
Source: US Census Website

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States with more Latinos must address language & cultural barriers to AT access.

Latino percentage of population



U.S. Census state population estimates, 1998

Source: US Census Website

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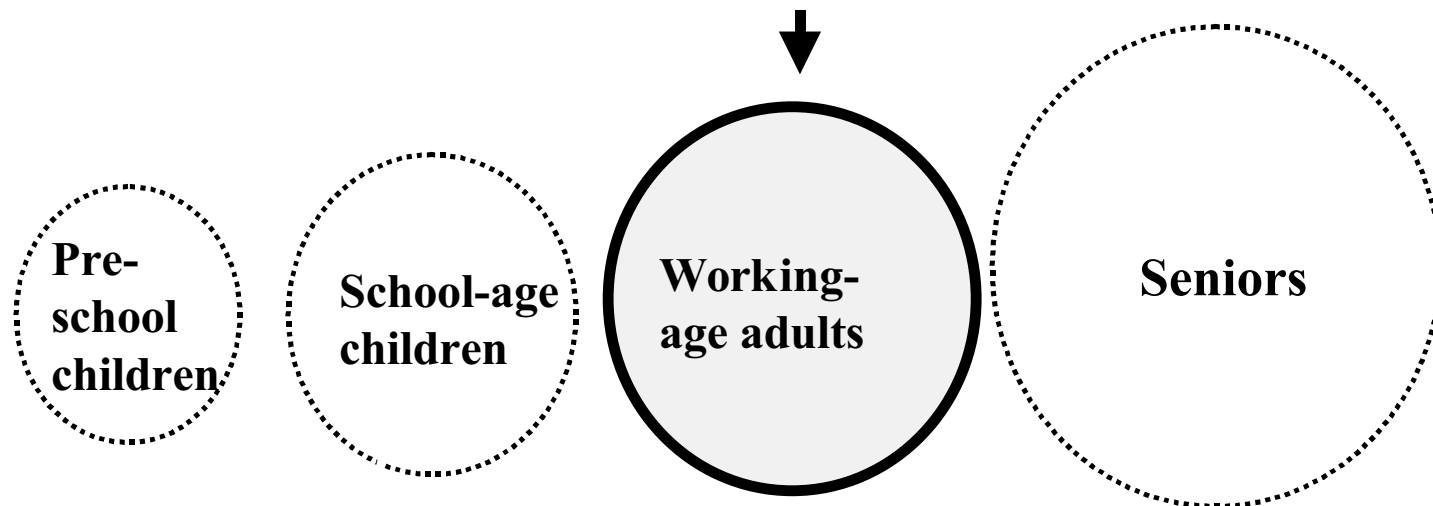
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What does overall disability prevalence in the state tell us about AT use & need?

- State population demographics

› Overall disability prevalence

- State disability - specific populations
- AT use (low tech to high tech)

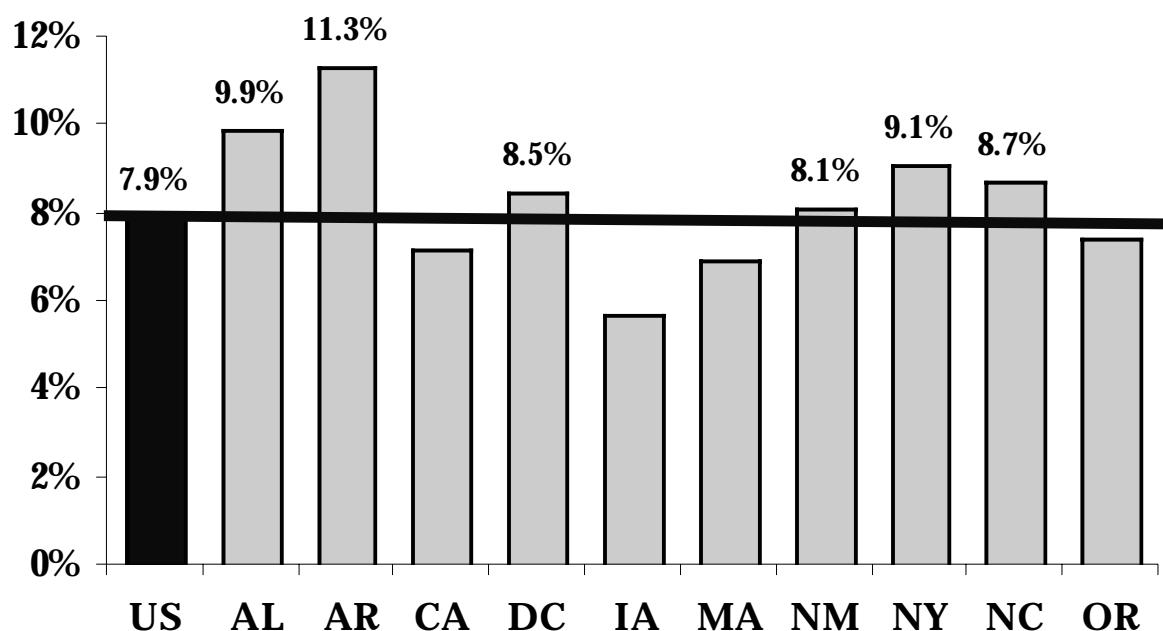


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Recent CPS estimates of work disability show differences among the states.

Percentage with work disability (CPS, 1999)



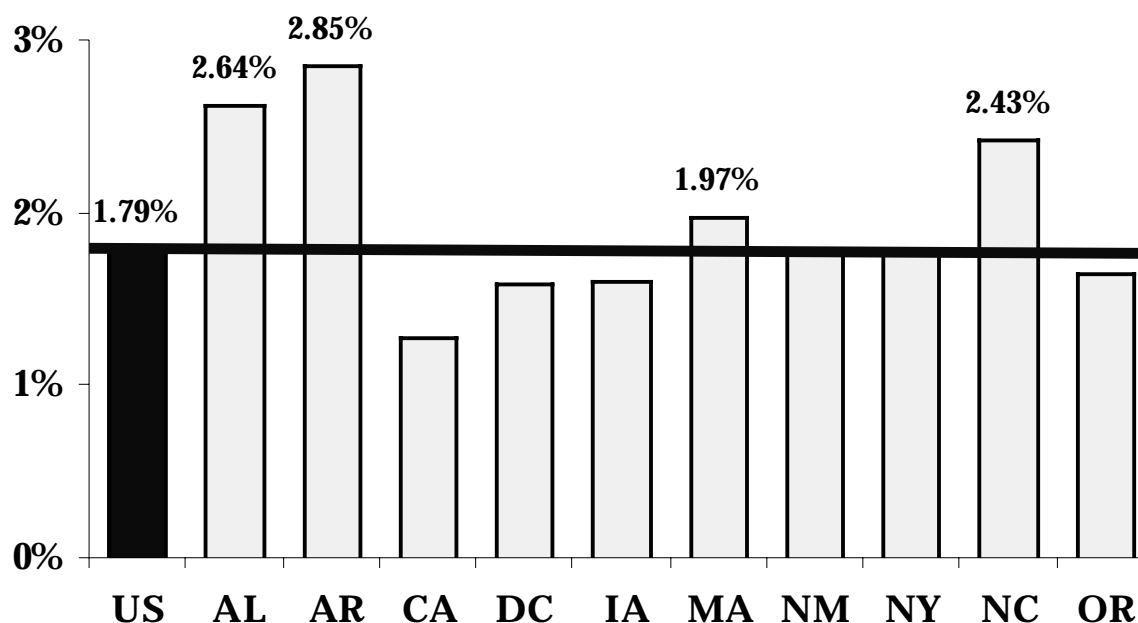
Source: Houtenville (2000) EDRR #1 Estimates of the prevalence of disability in the US by state, 1981-1999
Survey: CPS, 1999

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The percentage of people who receive SSDI Disabled Worker benefits varies among states.

Percentage on SSDI (Disabled Workers), 1999

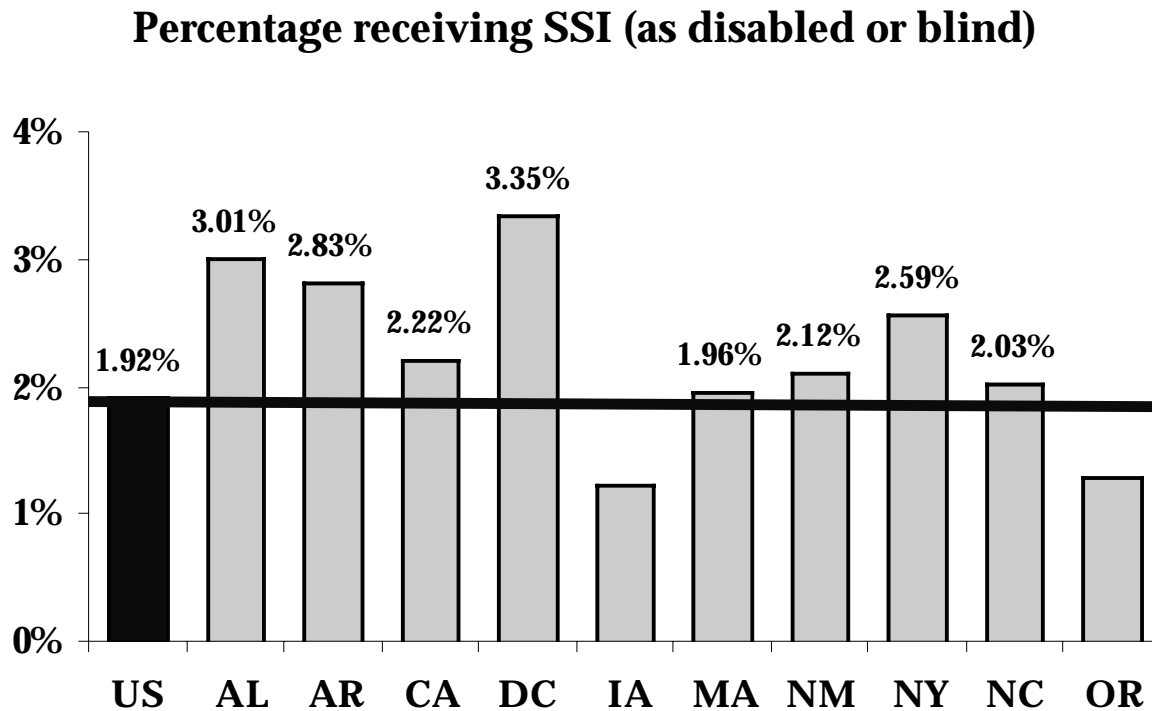


Sources: Social Security Administration Web site; U.S. Bureau of the Census Web site

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The picture of state variation is slightly different for disability-related SSI benefits.



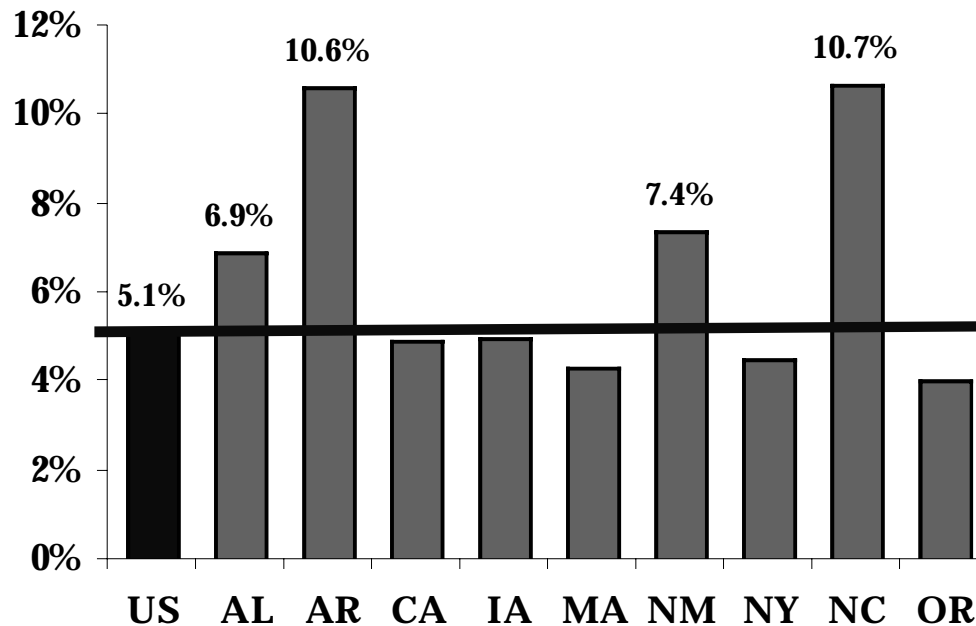
Sources: Social Security Administration Web site; U.S. Bureau of the Census Web site

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The Behavioral Risk Factor Surveillance System found large variation among states.

Percent with activity limitation (BRFSS, 1996)



1999 State Health Profiles, Centers for Disease Control and Prevention

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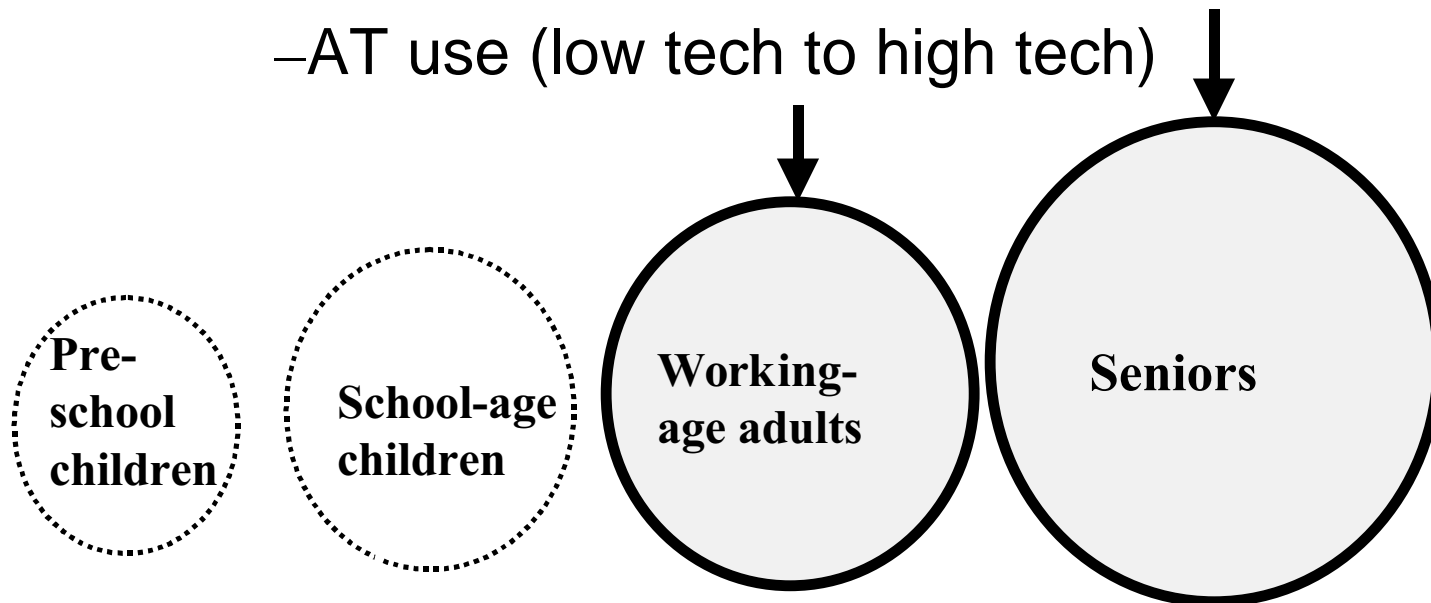
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Estimates of specific disability populations: what do they tell us about AT use & need?

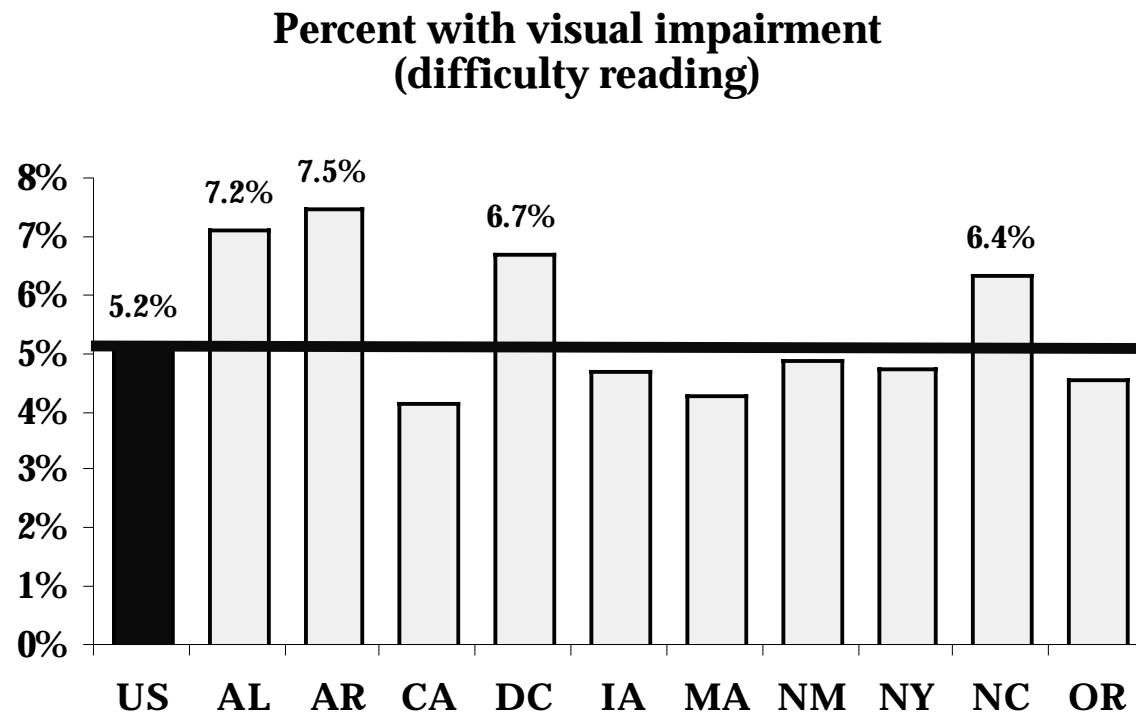
- State population demographics
 - Overall disability prevalence

➤State disability - specific populations

- AT use (low tech to high tech)



The southern states in this group have higher rates of visual impairment.

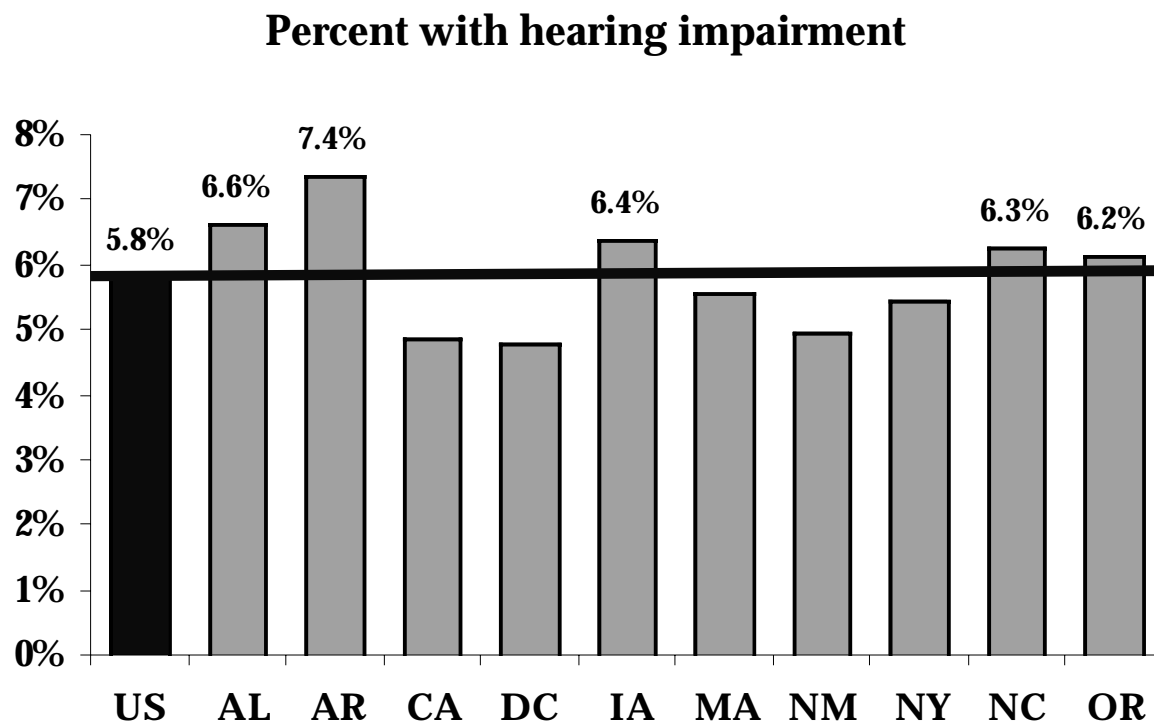


Source: U.S. Bureau of the Census, Disability, 1990 Census, Table 3 (Model-based estimates)

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States also vary in percent with hearing impairment.



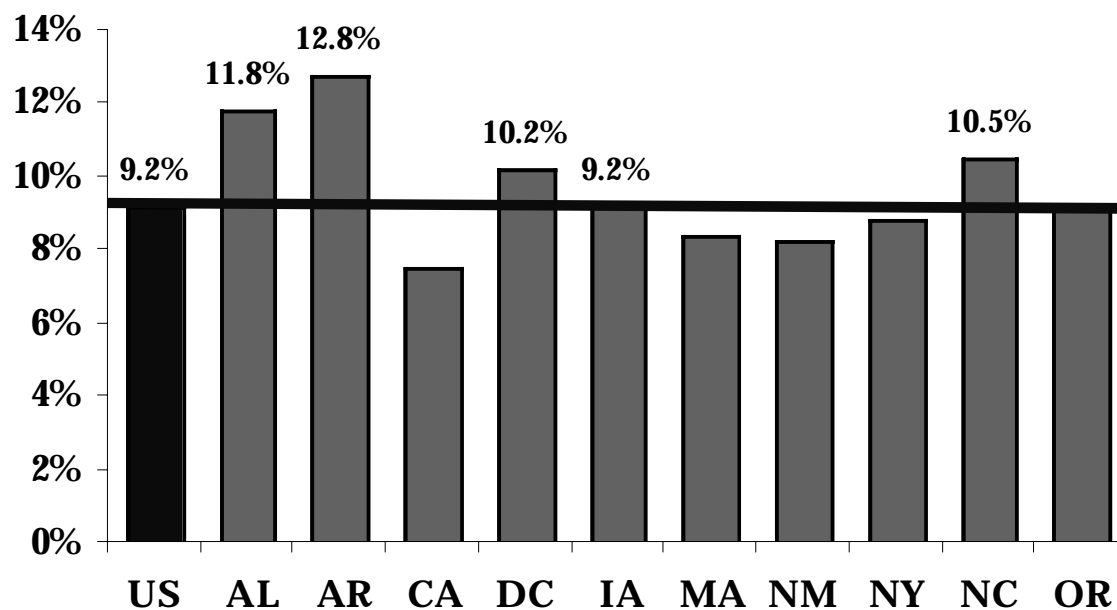
Source: U.S. Bureau of the Census, Disability, 1990 Census, Table 3 (Model-based estimates)

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Estimates of the number of people who have difficulty walking also vary from state to state.

Mobility impairment (difficulty walking)



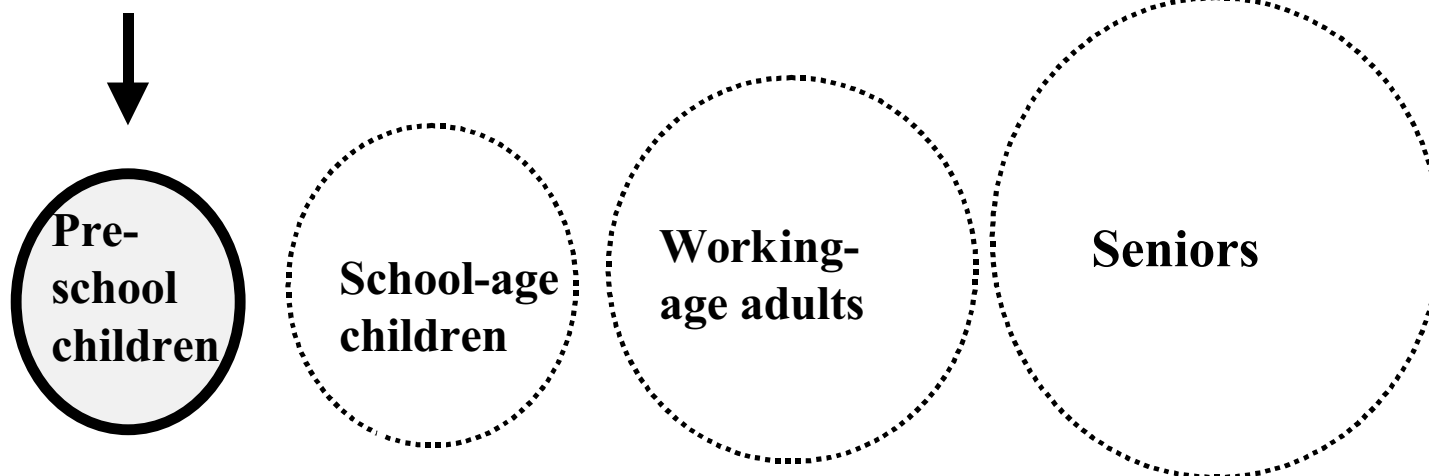
Source: U.S. Bureau of the Census, Disability, 1990 Census, Table 3 (Model-based estimates)

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Data on use of Assistive Technology: Very young children

- State population demographics
 - Overall disability prevalence
 - State disability - specific populations
 - ›**AT use (low tech to high tech)**

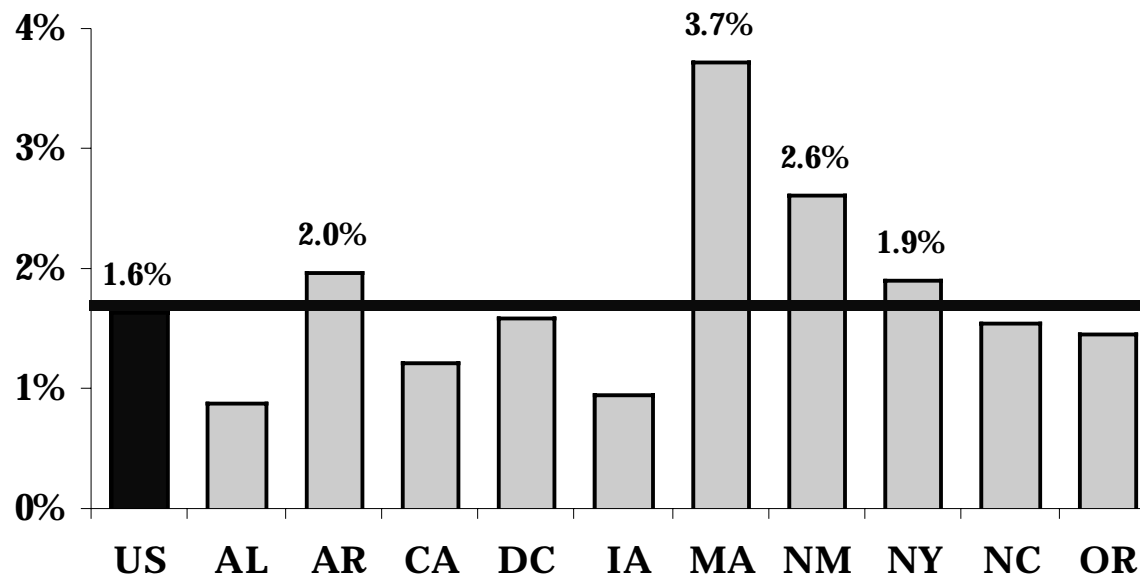


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The percentage of very young children who receive any early intervention under IDEA varies from state to state.

Percent of children 0-2 years receiving early intervention services under IDEA, 1996



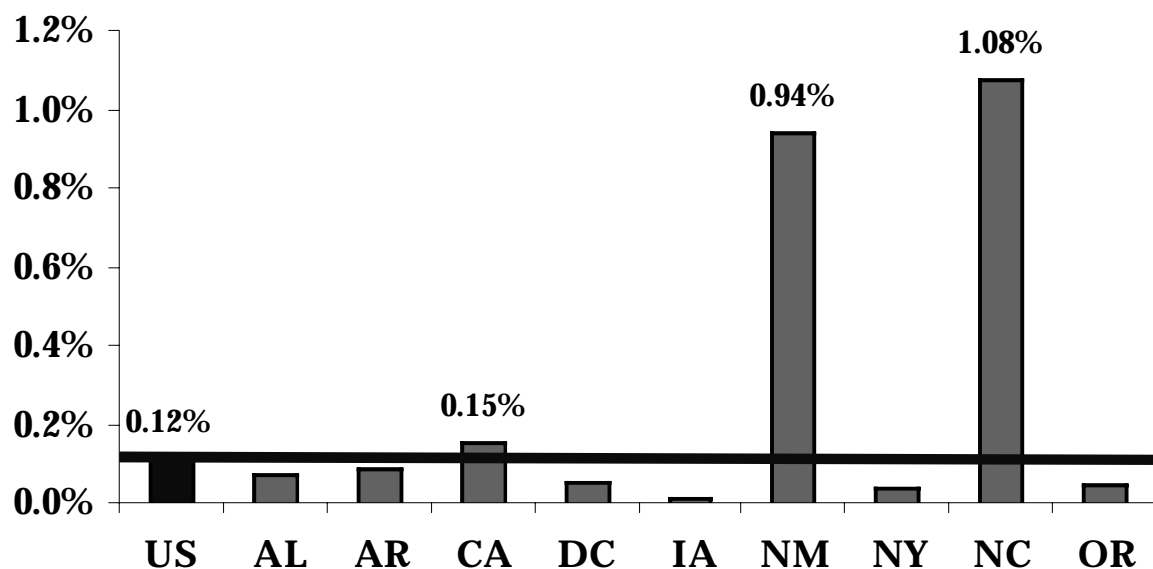
Sources: RESNA Technical Assistance Project (2000, July). Update on the use of AT among infants and toddlers. U.S. Census Bureau Web site: Detailed Files - Population Electronic Product #45 (population projections, 1996)

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There is even greater variation in percentage of very young children who receive AT.

Percentage of children 0-2 years receiving AT devices & services under IDEA, 1996



Sources: RESNA Technical Assistance Project (2000, July). Update on the use of AT among infants and toddlers. U.S. Census Bureau Web site: Detailed Files - Population Electronic Product #45 (population projections, 1996)

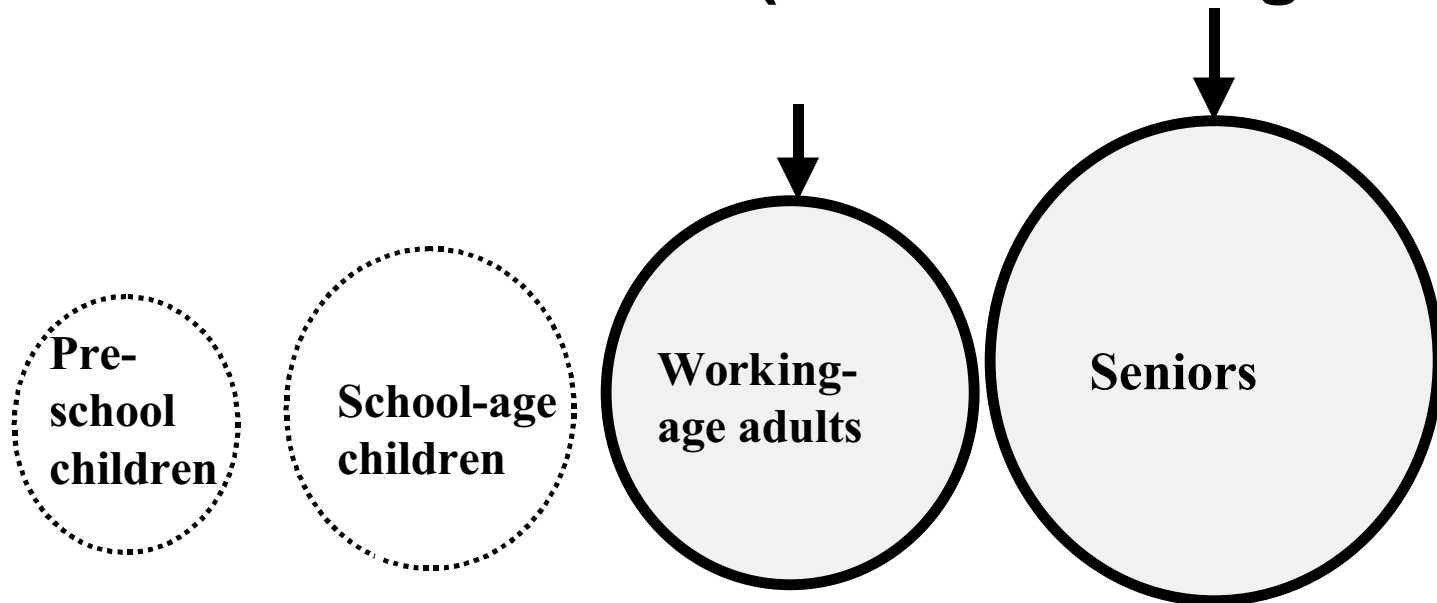
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Data on use of Assistive Technology: Adults

- State population demographics
 - Overall disability prevalence
 - State disability - specific populations

➤ **AT use (low tech to high tech)**

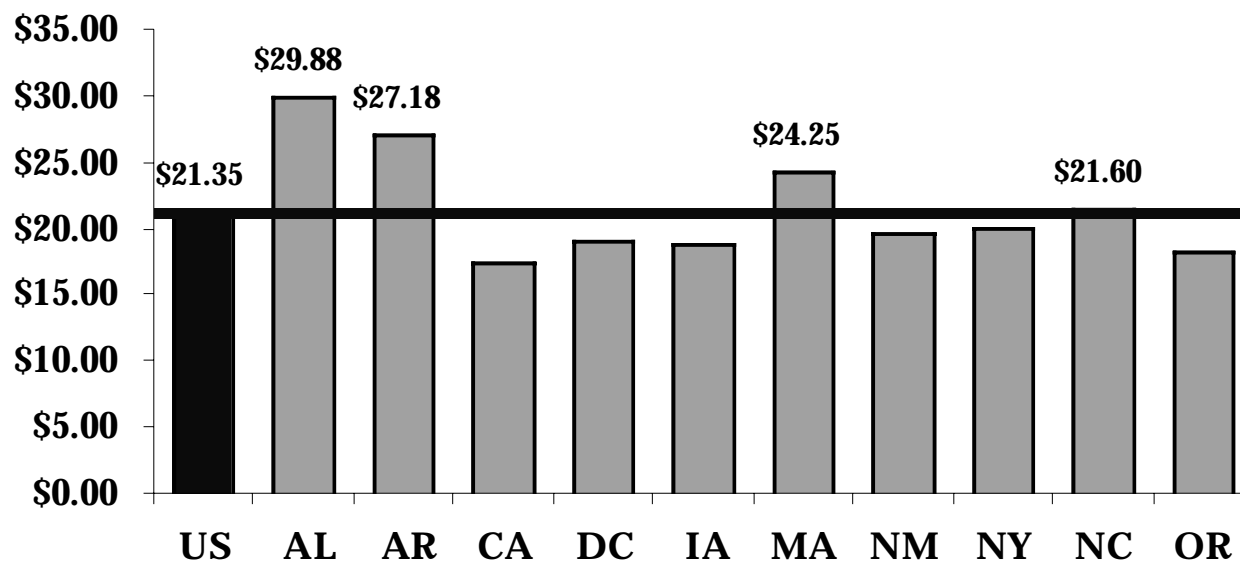


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Data on AT: Variations in Medicare DME expenditures

Medicare Durable Medical Equipment Expenditures divided by population (1998)



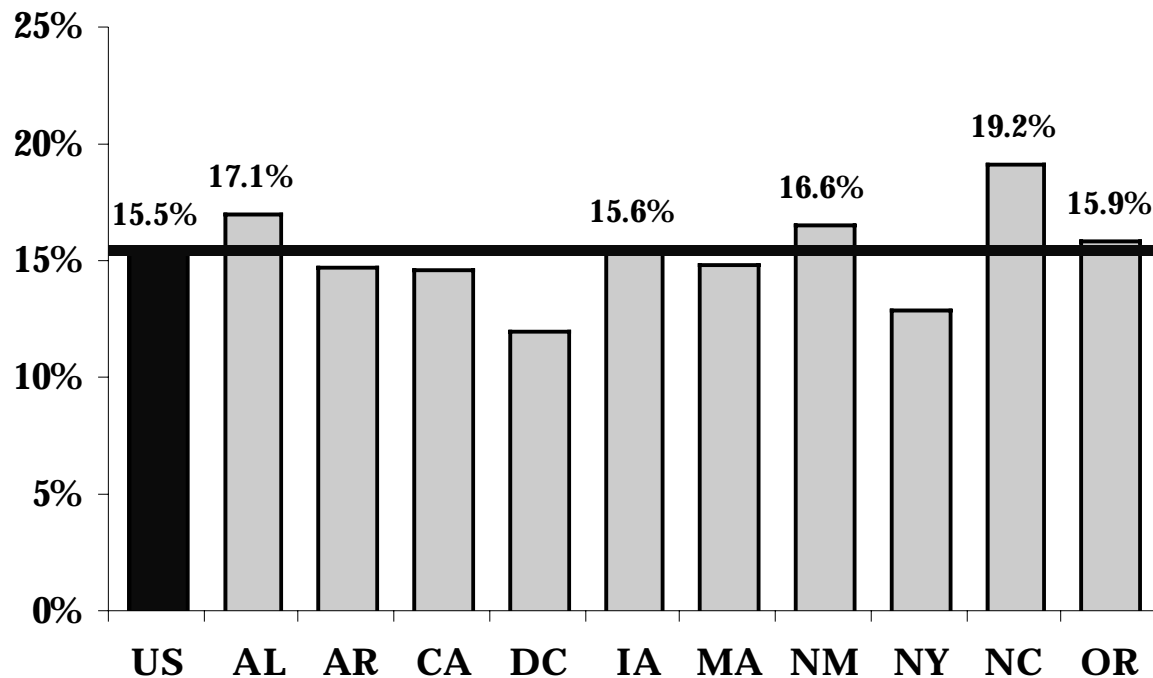
Sources: HCFA Web site: 1998 State Estimates - Medicare - DME and U.S. Bureau of the Census Web site for population projections, 1998

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States also vary on how rapidly their expenditures for DME have grown since 1980.

Average annual percent growth in DME



Source: HCFA Web site: 1998 State Estimates - Medicare - Vision Products and other Medical Durables

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Where do we go from here?

- Looked at patterns across 10 states to get the “lay of the land” and see what data currently exist
- Continuing to identify sources, some of which are available only on a state-by-state basis
- Next step is developing profiles for individual states
 - For each state, make a chartbook comparing with national picture
 - Fill in other data specific to each state
 - Highlight specific groups with disparities in access to AT