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Housing Problems of the Disabled in the United States

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Introduction

Persons with physical or mental impairments face challenges in obtaining housing-service packages that respond to their needs. In past decades, adults with disabilities generally have had less education, less employment, less income, and more poverty than their able-bodied counterparts. But educational, employment, and housing opportunities for those with disabilities have improved over the past 30 years. Previous emphases on mobility impairments and institutional living have given way to current broader attention to a variety of disability concerns and to community-based housing opportunities. Today's young adults with disabilities comprise the first generation of people with disabilities to grow up at home and participate fully in the mainstream of American life.

Review of Literature

Approximately 33 million Americans have some type of physical activity limitation resulting from a chronic condition. According to the National Center for Health Statistics (1982), one-third of those with activity limitations are age 65 or older. In the mid-'80s, 4.3 million U.S. children between the ages of three and 21 were enrolled in educational programs for the handicapped, including those directed to people with learning disabilities, speech impairments, mental retardation, emotional disturbances, and orthopedic, hearing, or vision impairments.

The exact size of the disabled population depends on how people and their impairments are defined and classified. Steinfeld et al. (1979) reported that alternative definitions for disability give rise to varying estimates of the number of disabled people in the United States. Defined in conservative terms, disabled people are those who need help for mobility and/or personal care and are severely disabled. This definition results in an estimate of 1.7 to 2.2% of the noninstitutionalized population that is disabled. A moderate definition describes disabled people as those who need help for mobility and/or personal care. This definition comprises 5.3% of the population. Using a liberal definition of those who are limited in ability to do any usual everyday activity results in an estimate of 11.6% of the population. Raschko (1982) related that there is a direct relationship between aging and disabilities and that one in every 11 people suffers from one or more disabilities. Nesmith (1987) estimated the disabled population to be between 32 million and 35 million people.

The substantial number of disabled people in the United States highlights the importance of understanding effects of barriers in their living environments. Norris-Baker, Stephens, and Willems (1982) observed that in the context of independence and mobility, negotiability of an environment and a disabled person's everyday behavior are related. They noted that an accommodating environment may decrease some facets of disabling conditions. This is because an accommodating environment restores environment-behavior links that a disability disrupts. Reizensenstein and Ostrander (1981) conducted a Post Occupancy Evaluation of an 18-unit apartment complex for quadriplegics. They found that the sensitively designed features of the complex and individual units were able to strengthen feelings of self-worth by minimizing effects of physical limitations and dependence on others.

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Davis and Lifchez (1987) defined accessibility for able-bodied people as the degree of ease with which one can reach a destination. For physically disabled people, however, arriving at a destination is only part of the issue. After arriving, entry, circulation, and full use of a building must be negotiated. In addition, how a person feels and interprets an environment are crucial and less quantifiable aspects of accessibility. Accessibility also differs for disabled people depending on whether their disabilities are related to sensory distortions and deficits, motor impairments, or emotional and cognitive impairments.

Rosentraub and Gilderbloom (1989) point out that access by everyone to built environments has not been a concern of planners in the construction of public and private places. These authors regard this situation a result of a socialization process that does not consider people with disabilities. This renders one-third of all disabled people and 15% of the elderly unable to use cabinets or closets in their own homes. Constructing ramps on houses would benefit the 20% of elderly and disabled people who cannot use stairs. Improving accessibility of homes for disabled people enhances independence and requires only minor modifications such as ramps, grab bars, and accessible cabinets.

Leonard, in *The Handicapped Building* (1978), argued for design for all people. He pointed out that most modifications that improve accessibility also enhance safety and convenience for everyone. He stressed that building design criteria based on an average person are flawed. A more sensible design approach could be modeled on a building code perspective which requires maximum performance that may be demanded of a building; for example, dictating a roof that will support the heaviest snow load it might be subjected to. This approach could specify building features for people with mobility barriers, sight impairments, and deafness.

Nesmith (1987) related that the most important factor in designing environments for disabled people is the reduction of social and architectural barriers to accessibility by focusing on needs and requirements common to all people. He reviewed research on house designs for the disabled and stated that appropriate design principles "...integrate accessible elements into the overall fabric to avoid 'stigmatizing' design, avoid hidden costs to residents, promote appropriately designed products, provide options, avoid stereotypical assumptions about the disabled, and recognize codes as minimum design guidelines." (Nesmith, 1987; p. 63).

Lifchez (1987) criticized the architectural profession for following behind lawmakers instead of leading them in the barrier-free design movement. He pointed out, however, that architects are not solely responsible for the lack of vision that has left so many homes and other buildings inaccessible to the disabled. Other factors that have contributed to the existing situation include conflicting and inadequate statutes, uninformed and disinterested clients, and social and economic factors.

An alternative approach to accessible housing for disabled people is the provision of adaptable housing. Bostrom, Mace, and Long (1987) listed problems that have developed with requirements for accessible housing in units developed with federal and state assistance. These have included inappropriate design details, inadequate space for families, clinical appearance, high vacancy rates, limited numbers, and poor locations. As a solution to these problems, adaptable housing units are those that look no different from other units and have features that can be easily adjusted, added, or removed to suit occupant needs.

Adaptable housing is characterized by features that are required by codes or standards for accessible units, such as wide doorways and clear floor space, but also allows choice in adjustable or fixed accessible features. Kitchen counters, for example, can be raised or lowered in an adaptable unit, and grab bars can easily be installed or removed as necessary. Adaptable housing units are attractive to disabled and non-disabled alike. As the concept becomes more widespread, disabled people will benefit by having an adequate supply of accessible units available in all price ranges and locations (Bostrom, Mace, & Long, 1987).

Adaptable housing is now required by the 1988 Fair Housing Amendments Act (FHAA) in all new multifamily housing in structures with four or more units. The FHAA regulations require an accessible building entrance on all accessible routes, accessible and usable public and common areas, and doors sufficiently wide enough to allow wheelchair passage. The

required adaptability features include an accessible route into and through dwelling units; light switches, electrical outlets, thermostats, and other environmental controls in accessible locations; reinforced bathroom walls for grab bars; and kitchens and baths with maneuvering space (U.S. Department of Housing and Urban Development, 1991).

While the majority of housing units in the United States are not appropriately designed for disabled people, this situation will gradually change as awareness of accessible and adaptable housing increases, especially in light of recent legislation and standards. Public efforts to integrate persons with disabilities into a more responsive environment have taken two directions: access standards and building regulations, in addition to civil rights and fair housing policies. Previous "white cane safety laws" that were to guarantee access, barrier-free design, and safety for disabled people varied widely, were contradictory, and ineffective -- and usually did not cover residential structures. Because voluntary standards and policies had not succeeded, Congress concentrated on mandatory accessibility requirements, including the 1968 Architectural Barriers Act, the Vocational Rehabilitation Acts, and various federal housing programs, until the late '80s.

More recently, the American National Standards Institute's ANSI Al 17.1 (1991) is a consensus document that has evolved over 30 years and includes residential specifications for adaptability. This standard considers needs of people with walking, hearing, sight, coordination and manipulation, and endurance disabilities. The Uniform Federal Accessibility Standards (U.S. General Services Administration, 1984) applies to all federally funded construction. These standards are virtually identical to ANSI Al 17.1 and assure uniformity in access requirements in both federal and private construction projects for the foreseeable future. In the past decade, elimination of attitudinal barriers and resultant discrimination against disabled individuals and groups was attacked by preemptive state legislation, a 1985 Supreme Court decision striking down restrictive group home zoning, the 1988 Fair Housing Amendments, and the 1990 Americans with Disabilities Act (U.S. Bureau of Census, 1989; BOMAI, 1991).

Now illegal, previous practices that combined to limit where and how disabled people were allowed to live have begun to decline. Designing with disabled people in mind, instead of designing for disabled people, will benefit society as a whole, because housing will eventually be appropriate for anyone through various life cycle stages and conditions (Raschko, 1982).

Importance of Examining Housing Conditions of the Disabled

The substantial number of disabled households in the United States highlights the importance of examining their housing problems. Public policies directed toward improvements in the accessibility of built environments for the disabled have focused on access standards, building regulations, civil rights, and fair housing policies. Yet much remains to be understood about basic housing issues affecting disabled people. While the majority of housing units in the United States are not appropriately designed for disabled people, this situation may gradually change as awareness of housing conditions experienced by the disabled are better understood. A basic understanding begins with an examination of economic characteristics of disabled households, with a focus on household income and housing expenses; housing quality issues; and the extent to which disabled households rely on public assistance. Further understanding can be achieved through comparisons of disabled households with other types of households, as well as through metropolitan -- nonmetropolitan comparisons.

Methodology

To examine housing conditions of households with one or more disabled members, hereafter referred to as disability households, wave XX of the 1987 Panel Study of Income Dynamics (PSID) was utilized, because it includes both demographic and housing information about disability households. A household is classified as disabled in the PSID data if either the household head or spouse of the household head has a physical or nervous condition that restricts the type or amount of work able to be performed.

The initial PSID survey was conducted in 1968 with an initial sample of 1,872 low-income households who had been previously interviewed in the Survey of Economic Opportunity, which was conducted by the U.S. Bureau of the Census. The University of Michigan Survey Research Center added 2,930 observations from its cross-sectional data base for a total of 4,802 households.

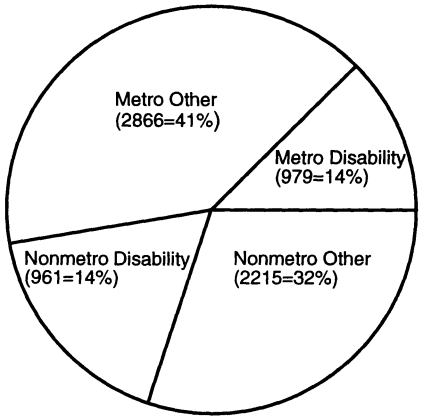
Data were obtained through interviews with heads of households. Those interviewed in 1968 have been interviewed in each succeeding year. The wave XX Survey, conducted in 1987, consists of a sample of 7,061 heads of households (Survey Research Center, 1989). To assure representativeness for this study, the data set was weighted by the 1987 household weight divided by the mean household weight. This weighting method resulted in a sample size equal to the original sample, but also representative of total U.S. households.

Metropolitan households are those living within a Metropolitan Statistical Area (MSA) as defined by the Bureau of the Census (U.S. Bureau of the Census, 1992). An MSA is defined as the county or group of counties in which a city of 50,000 or more and an urbanized area of 100,000 or more are located. Residents who live in small communities or in open country outside the city but within the county, are considered "metropolitan." Nonmetropolitan households are those whose dwelling is not within an MSA and include cities with populations equal to or less than 49,999.

Sample Size

As shown in Figure 1, of the 7,061 U.S. households in the 1987 PSID data set, 1,940 (27.47%) were disabled, while the remaining 5,121 (72.52%) were able-bodied. Of the 3,845 metropolitan households, 979 (25.46%) were classified as disabled, as were 961 (30.26%) of the 3,176 nonmetropolitan households. Comparisons by region show similar breakdowns for both metropolitan and nonmetropolitan households. In metropolitan areas, approximately one-fourth of the sample is classified as disability households. In the Northeast, this figure is 25.43%; it is 24.96% for the North Central region; 24.73% for the West; and 27% for the South. Nonmetropolitan disability households show little variation across regions: in the Northeast, the figure is 31.26%; it is 28.84% for the North Central region; 30.29% for the West; and 30.97% for the South.

Figure 1. Disability and other U.S. households, metropolitan and nonmetropolitan.



Total U.S. Households = 7061 (Disability - 1940; Other - 1521)

Findings

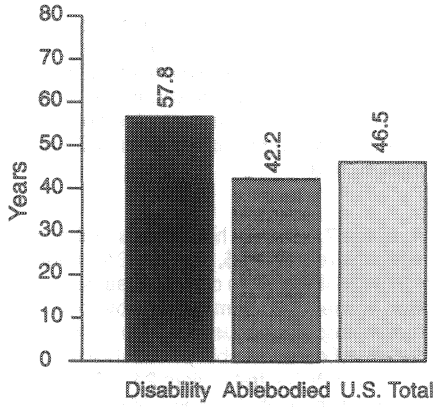
Demographic Characteristics

Several of the demographic characteristics that differentiate disability households from the able-bodied counterparts, both in metropolitan as well as in nonmetropolitan areas, in-

clude: age and elderly status, health condition, percent who are widowed, median and mean monthly income, and receipt of public assistance. Public assistance is defined as receipt by the household head or spouse of Aid-to-Families-with-Dependent Children (AFDC), Supplemental Security Income (551), food stamps, or Medicaid.

Age. Figure 2 shows that the mean age for disability households was 58 years, compared to 42 years for the able-bodied. Metropolitan disabled households were slightly younger at 57 years than their counterparts in nonmetropolitan areas, who had a mean age of 58 years.

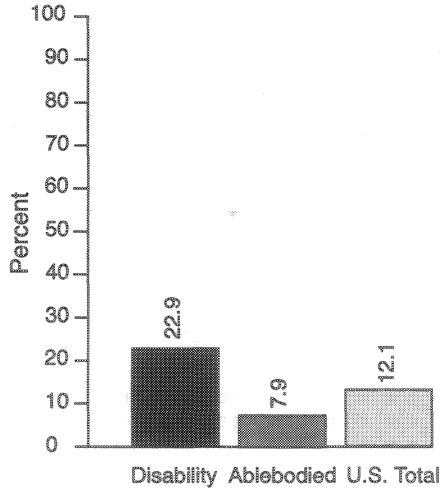
Figure 2. Mean age.



Elderly. With the mean age 37% higher for disability households, it is not surprising to see that they are also about three-and-one-half times (41.4%: 12.1%) more likely to be elderly (head or spouse is 65 or older) as well. This difference holds true for both metropolitan and nonmetropolitan households. They consequently were less likely to have children under the age of 18 (26% disability vs. 42% able-bodied).

Widowed. As seen in Figure 3, nearly three times more disability households (22.9%) were widowed than were able-bodied households (7.9%). The average widowed for the Unit-

Figure 3. Percent widowed.



ed States as a whole was almost half (12.1%) that of disability households. Slightly more metropolitan disabled (23.9%) were widowed than counterparts in nonmetropolitan areas (22.0%).

Monthly Income. Disability households have a median income almost one-half (46.6%) less than their able-bodied cohorts: $1,573.83 per month vs. $2,308.83 per month; and over one-third less (34.2%) than the U.S. as a whole. Median monthly income for the disabled ranged from a low of $1,339.00 in the South to a high of $1,952.75 in the Northeast, a difference of 45.8%. The median monthly income range for able-bodied households was similar to the U.S. monthly income range. Mean incomes for disability households were 37% less than able-bodied households and 26.5% less than U.S. households as a whole. Nonmetropolitan disabled had median monthly incomes 15.4% lower than those with metropolitan addresses: $1,439.00 vs. $1,660.42; and mean incomes 18.2% less: $1,953.33 vs. $2,309.68. Nonmetropolitan disability households in the North Central region had the largest discrepancy in mean income, fully 25% less than their counterparts in metropolitan areas: $1,711.23 vs. $2,139.23.

Health Status. The percentage of disability households who have a member in poor or fair health is seven times that of able-bodied households (48.4% vs. 6.9%), which may be indicative of the disability being related to health status or higher age. These figures differ substantially from the percentage of all U.S. households in this category (18.3%). A slightly higher percentage of nonmetropolitan disabled households (49.2%) than metropolitan disabled households (47.5%) have a member in poor or fair health.

The percentage of disability households in poor or fair health range from a low of 36.1% in the West to a high of 57.7% in the South. Disabled in the West are 34.1% less likely to experience health problems than those at the national level, while those in the South are 19.2% more likely.

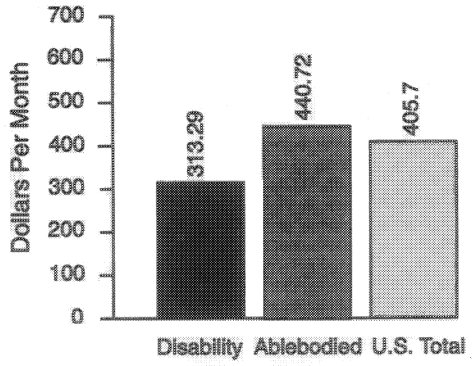
Receipt of Public Assistance. Only 8.1% of able-bodied households receive public assistance, which in the PSID data set is defined as receipt by household head or spouse of Aid-to-Families-with-Dependent Children (AFDC), Supplemental Security Income (551), food stamps, or Medicaid. This figure compares with 19.4% of disability households and 11.3% of all U.S. households. Public assistance is received by more nonmetropolitan disability households (21.0%) than by those in metropolitan areas (18.4%).

Housing Characteristics

Housing characteristics that differentiate disability households from able-bodied households include mean monthly housing expense, housing/income ration greater than 35%, home ownership, receipt of housing assistance, and percent in housing poverty.

Mean Monthly Housing Expense. Figure 4 shows that on a national level, disability households spend 40.7% less each month for housing than do able-bodied households

Figure 4. Mean housing expense per month.



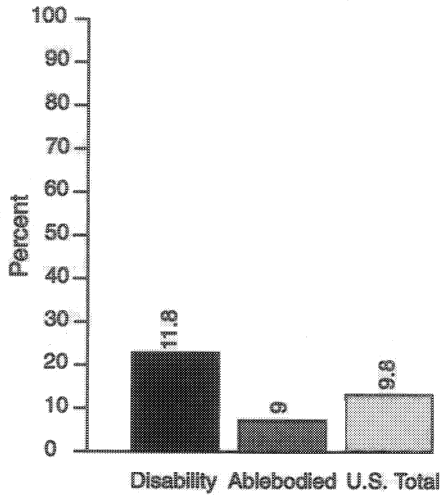
($313.29 vs. $440.72) and 29.5% less than the average for all U.S. households of $405.70. Housing expenses for disability households range from $283.48 per month in the South to $378.18 in the Northeast, a difference of 33.4%. These figures are 10.5% less and 20.7% more, respectively, than the national average for disability households. While a wide discrepancy by region exists in the dollar value of monthly housing costs, the median percent of income that disability households spend on housing does not vary on a regional or national basis.

Housing/Income > 35% and > 50%. When housing costs as a percentage of income are examined, 15.9% of disability households spend more than 35% of their income on housing, as compared with 11.6% of able-bodied households and 12.8% of all households. When a higher housing cost to income ratio is examined, 7.8% of disabled households spend more than 50% of their income on housing, as compared with 5.5% of able-bodied households and 6.1% of all households.

While 2.4% more metropolitan disabled households spend more than 35% of their income on housing than do those in nonmetropolitan areas (17.1% vs. 14.7%), 4.1% more nonmetropolitan disabled households spend in excess of 50% (9.8% vs. 5.7%).

Housing Poverty. Housing poverty is a variable indicating whether a household's housing expenditures are so high that the remaining income is less than two-thirds that of poverty guidelines. As shown in Figure 5, housing poverty is experienced by 11.8% of disability households, as compared with 9.0% of able-bodied households and 9.8% of all households. The higher percentage for disability households is likely the result of lower incomes and higher percentages of those incomes that are spent on housing.

Figure 5. Percent in housing poverty.



Home ownership. Disability households compare favorably to other types of households with regard to owning their homes. While 65.7% of disability households own their homes, only 57.8% of able-bodied households and 60.0% of all households own theirs. For metropolitan disability households, the figure is 60.4%; for nonmetropolitan disability households, the figure is 71.1%.

Receipt of Housing Assistance. Housing assistance is a variable indicating whether a household is receiving any of the following: housing vouchers or certificates, Public Housing, other subsidized housing, an interest subsidy, or energy assistance. While 16.8% of dis-

ability households receive some type of assistance with their housing, only 7.5% of able-bodied households do, which compares with 10.1% of all households. No appreciable differences exist between metropolitan and nonmetropolitan households who receive housing assistance and those who do not.

Summary and Conclusions

Across most demographic and homeownership criteria examined in this paper, those households with a disabled member were seen to be at a disadvantage when compared to both their able-bodied counterparts and to all households across the U.S. The only characteristic where this was not the case was in the area of homeownership, with more disability households owning their homes than either their able-bodied counterparts or all other households as a whole. This may be explained by the fact that large numbers of disability households are also elderly, and therefore likely to own their homes. In spite of the apparent advantage of a high rate of homeownership among disability households, the large portion of income this group spends on housing should be noted.

As the data in this paper demonstrated, nonmetropolitan disability households suffer housing problems more severely than their counterparts in metropolitan areas. In addition, a higher percentage of nonmetropolitan disabled households receive public assistance than those in metropolitan areas. This may be due to the large income gap between the two groups, as the lower income nonmetropolitan disability households are likely to be eligible for more public assistance.

Depending on the definition used, one-fourth to one-third of the U.S. population qualifies as disabled. One in six adults is disabled; one in ten children has a handicapping disability; and one in three families has a disabled member (Edwards, 1986). The implementation of the ANSI standards; Uniform Federal Accessibility Standards; Fair Housing Amendments; the americans with Disabilities Act; and other public policies, codes, and regulations have all contributed to progress in providing accessible environments for the disabled. Still needed, however, is a greater understanding on the part of housing agencies, policy makers, and society at large, of housing conditions faced by disability households.

Society's understanding of housing conditions and problems that disability households face can improve through continued research and education on this issue. Case studies and demonstrations of specific topics, such as adaptable housing, can be conducted at the local level through community education networks including the Cooperative Extension Service and state and local housing agencies. Longitudinal studies of adaptable housing units could lead to refinements in this design technique. And long-term studies of individual disability households could provide insights into specific problem areas, including the greater severity to which nonmetropolitan disability households suffer housing problems as compared to those in metropolitan areas, rates of housing poverty among disability households, and housing affordability for this group.

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