

PEOPLE WITH DISABILITIES AND LIMITATIONS

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Introduction

Governments are being pressured to meet the needs of persons with disabilities. It is a growing human rights issue around the world and in the Pacific (Fitzgerald and Armstrong, 1992). The issue on Guam, as elsewhere, is the equalization of opportunity and its demand for improved accessibility. It is the call for social responsibility to assist individuals with limitations so they can function and contribute in society, and have satisfying life experiences (Gartner and Joe, 1987).

Guam has a wide array of programs to assist persons with disabilities, including both private and public organizations. The Governor's Commission of Disabilities, and the Developmental Disabilities Council act as umbrella networks linking these groups and agencies together. Even so, public awareness of people with disabilities on Guam is minimal. Their needs are overshadowed by other headline topics. People do take notice when persons with disabilities are made the focus of a "human interest" media story, but for many people that is their only contact. People with disabilities must attend to their own needs, a concern shared with their families and service programs.

A criticism for this limited awareness is the lack of research data and insufficient agency record counts. The 1990 Census will help correct this situation. For the first time the U.S. Census included questions identifying persons with disabling conditions. Articles using 1990 census data, like this one, can stimulate public awareness, and encourage improved social responsibility.

Our awareness and understanding is very dependent on our definitions of "who are individuals with limitations." The census definitions were designed to be broad and inclusive for public policy decisions. Thus they are more general than specific ideas held by many people. Yoichi Rengiil and Jane Jarrow from Guam explain differences in cultural definitions of disability in their paper "Culture and Disability in Palau" (Fitzgerald and Armstrong, 1992). These different meanings, they argue, must be addressed in presentations and reports. Not just for interpretation of findings, but for clarity when explaining such findings. How Pacific Island readers understand and re-state these data in public discourse will be critical in furthering the acceptance and integration of persons with disabilities in this region. Following their discussion, the definitions by the World Health Organization (WHO) will be the meanings implied by terms used in this chapter:

"Impairment: Any loss or abnormality of psychological, physiological, or anatomical structure or function.

"Disability: Any restriction or lack (resulting from an impairment) of an ability to perform an activity in the manner or within the range considered normal for a human being.

"Handicap: A disadvantage for a given individual, resulting from an impairment or disability, that limits or prevents the fulfillment of a role that is normal (depending on age, sex, and social and cultural factors for that individual).

"Equalization of opportunities: The process through which the general system of society, such as the physical and cultural environment, housing and transportation, social and health services, educational and work opportunities, cultural and social life, including sports and recreational facilities, are made accessible to all."
(WHO, 1980)

This chapter focused on three items in the 1990 Census. These asked if a person had a health condition that had lasted 6 or more months and which made it difficult to perform one of several activities. The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered an impairment restricting the normal range of human activity; therefore, it would not have been recorded.

It is meaningful to note the conceptual perception being defined. Public ideas of "handicapped" and "the disabled" often include judgements of stigma, or contrasts of abnormal from normal people. The census definition focused perceptions on people with a self-recognized condition which had resulted in a specified consequence, restriction, or difficulty. This chapter, therefore, will refer to "people with a limitation" or "people reporting an impairment" to emphasize a status category in the general population - that is, persons effected by a disabling condition.

Mobility Limitation status was defined by item 19a which asked if persons had a health condition that had lasted 6 or more months and which made it difficult to go outside the home alone. Examples of outside activities on the questionnaire included shopping and visiting a doctor's office. *Self-care Limitation* status derived from item 19b which asked if persons had a health condition that had lasted 6 or more months and which made it difficult to take care of their own personal needs, such as dressing, bathing, or getting around inside the home. Data on *Work Disability* status were obtained from item 18 which asked persons if they had a health condition lasting 6 or more months and which limited the kind or amount of work they could do at a job or business. This included persons with a health condition that restricted their choice of jobs, or limited the amount of work if he or she was not able to work full-time. Persons reporting a work disability were further divided into those "Prevented from working," or if not prevented from working, then as either "In The Labor Force" or "Not Working".

These three items were asked to all persons 15 years of age and older. Reported tabulations restricted to those aged 16 years and over. Unfortunately, this leaves policy questions about children with disabilities unanswered. It also meant that this chapter needed to pay special attention to differences between young and elderly adults. Aging increases the health susceptibility of even the most athletic persons. Our analyses separated elderly (*manamko*)

adults aged 65 years or older from those younger (*manhoben*) age 16 to 64 years.

This study began its investigation examining age differentials which can influence observed differences in other social traits. For example, certain ethnic communities may have higher percentages due to greater concentrations of older persons. Because concerns with mobility and self-care limitations transcend all ages, this study examined differences by age, ethnicity and education first, and then addressed the more age-specific concern with work related disabilities.

Adults With Mobility and Self-Care Limitations

Persons with disabilities constitute a true minority in Guam's society. Only about 5 percent of adults, 3,727 persons, reported health conditions making it difficult to either "go outside the home" (i.e., mobility limitation) or to "care for personal needs" (i.e., self-care limitation). Table 11.1 displays percentage calculations for comparison across age and gender groupings, while Table 11.2 presents the actual numerical counts.

Examining across the upper panel of Table 11.1, the incidence of either a mobility or self-care limitation increased with age. Just 3.2 percent of young adults age 16 to 34 years reported a limitation. In contrast about one of every seven elderly over the age of 64 years, or 15 percent reported such limitations. Some human impairments are minor inconveniences for younger persons but more debilitating for older persons, and some impairments result from the aging process, affecting people as they get older. The incidence of disability limitations among Guam's *manamko*, elderly age 65 or more years (14.9%), is over twice that found in the next younger age group, those age 50 to 64 years (6.4%), and triple that of persons age 35 to 49 years (4.1%).

No difference appeared between males and females who had near equal levels of incidence. Among the younger and middle age adults males reported rates slightly higher than females. The fact that women live longer than men, however, may account for the shift among the elderly where women reported rates notably higher than men (17.3 versus 12.4 percent respectively).

Place Tables 1 and 2 about here

Although the elderly had higher rates of incidence, the largest numbers of persons with limitations were among persons under age 50 (see Table 11.2). Over half (57% or 2,154) of people reporting a limitation were age 16 to 49 years, and in fact one-third (1,254) were in the youngest group age 16 to 34 years. The numbers reveal, however, that the types of limitation differ between the younger and older age cohorts. The ratio of "self-care" cases per 100 "mobility" cases illustrates this point. Among those aged 16 to 34 years, this ratio is 474.0 cases of self-care limitation per 100 mobility cases (i.e., 1,166 to 246). This ratio steadily declined to only 93.3 cases of self-care limitation per 100 mobility cases among *manamko* age

65 years or older.

In other words, among younger adults, impairments causing self-care disability were found to be four times as prevalent as impairments causing mobility limitations. The types of impairments and resulting nature of disabilities change in successively older age cohorts. This is evidenced by the steady shift across age cohorts to the point where impairments causing self-care and mobility limitations have nearly equal, one to one prevalence among the *manamko* over age 65. Moreover, serious conditions resulting in both self-care and mobility limitations increase in number across the age cohorts. Only 13 percent of young adults with disability (158 of 1,254) have impairments causing both mobility and self care disability. Among the elderly almost half of those with disabilities (45 percent; 350 of 781) were affected with such impairments.

These data mark out general parameters of how health conditions, problems, and needs differ between younger and elderly adults with disabilities on Guam. These patterns are not unusual, and the data provide insight to the magnitude or number of adults in need of program services. Yet a question arises as to how Guam's situation compares to other places. Even if bodily impairments are human constants, "perception of disability and handicap are not (Rengiil and Jarrow, 1992:12)."

Turning to Table 11.3, we assessed Guam's situation by comparison to other selected U.S. Census areas in the Pacific Basin region. It is obvious that these locations had varying levels of reported disabilities, but in general the percentages fall in reasonable ranges. This gives confidence that Guam's data are trustworthy and as reliable as measures obtained elsewhere.

Place Table 3 about here

Among those age 16 to 64 years (Table 11.3; top panel) Guam's measures of incidence were similar to those found in Hawaii. This placed Guam's levels slightly above those for Belau, the Northern Marianas and Alaska. California displays relatively higher levels of reported disability than the other areas for each of these measures. In contrast, Guam's elderly (see center panel) reported less incidence of mobility handicaps (11.2 percent) than other areas. Belau and the Northern Marianas stand out as Pacific areas with relatively high incidence of impairments among their elderly simultaneously causing both mobility and self-care disability (9.1 and 9.8 percent).

Guam's need for services to persons with mobility limitations matches that found in other areas of Micronesia. But its need to address handicaps resulting from self care disabilities is greater. Examining the bottom panel for the total adult population, Guam's measure of self-care disability in the adult population (4.0 percent) is about double the comparable measures for Belau (1.9 percent), Northern Marianas (2.1 percent), and Alaska (2.2 percent). Thus Guam is more comparable to Hawaii (4.4 percent) and California (4.9 percent). Guam's incidence of mobility

limitations (1.9 percent), however, is similar to levels found in Alaska (2.0 percent) and Belau (2.2 percent), and slightly lower than percentages in Hawaii (3.3) and California (3.8).

Profiles of Adults With Disabilities

This initial exploration of Guam's 1990 Census data looked to see if differences exist in the rates of disabling impairments across Guam's ethnic communities. Attention was then given to see the extent to which adults with disabilities are concentrated within lower educational levels, a trait which may be associated with greater dependency. Percentage rates and numerical counts of disability measures for each of Guam's major ethnic groups are presented separately for Guam's *manhoben* (adults age 16 to 64 years) and its *manamko* (adults age 65 years or older).

Tables 11.4 and 11.5 present data for Guam's major ethnic groupings among its young and middle aged adults -- the *manhoben*. Examining Table 11.4, we found the Filipino community reported notably higher incidence of impairments causing self care limitations (top panel, 5.1 percent). Rates tended to be higher also for the Micronesian (3.8 percent) and Asian communities (4.3 percent). Male Filipinos, with 6.0 percent reporting such impairments, constitute the majority of these. Even so, the percentage among Filipinas (4.3 percent) was also among the highest along with Micronesian (4.2 percent) and Asian women (4.2 percent).

Place Table 4 about here

The indigenous Chamorro population reported impairments causing mobility disability twice as frequently as any of the other ethnic communities (1.9 percent compared to 0.9 percent or less). They were also twice as likely to have reported impairments causing the more serious condition of having both mobility and self care limitations (1.1 percent compared to 0.6 percent or less).

Differences between males and females varied across the ethnic communities, and these findings mark out a subject needing further research on the nature of disabilities and handicaps on Guam. The implication is that there may be cultural factors effecting the perception and reporting of disabling limitations. No differences appear in levels for men and women, within those ethnic categories having lower incidence rates (e.g., Statesider and Chamorro). The Asian community also displayed no difference between males and females. Within the Filipino community, however, the incidence of self-care limitations among males (6.0 percent) was higher than among females (4.3 percent). In contrast, within the Micronesian community, the incidence of self-care limitations among women (4.2 percent) was higher than among males (3.5 percent).

Turning to the numerical counts in Table 11.5, it is important to note that the greatest numbers of persons with limitations and in need of services are within the Filipino and Chamorro communities. The Asian community has a relatively high incidence, and thus their number (379 persons) is about three-times greater than numbers for the remaining ethnic groups.

Place Table 5 about here

The data strongly suggest these ethnic communities differ in the nature of impairments and types of disability that were reported. Consequently, although Filipinos constitute just over one-fourth of the population, they compose 38.5 percent of persons reporting self-care limitations, and Filipino men make-up 42.1 percent of males with this condition. Chamorros, on the other hand, constitute about 40 percent of the population, but compose 61.5 percent or nearly two-thirds of persons with a mobility limitation. The future development of service programs and how they are delivered will need to take these ethnic profiles into consideration.

Tables 11.6 and 11.7 display the same measures for the *manamko* or elders over age 65 years in Guam's ethnic communities. Even so, the data reveal patterns very different from those found among the younger and middle-aged adults. This is further evidence that the nature of impairments and types of disabling conditions greatly differ by age.

Within this segment of the population, Chamorros more frequently reported disabling conditions than other ethnic communities. The exception was for the ethnic category labeled as "multiple", or mixed ethnicity, who reported equally high incidence levels. The authors feel that nothing is gained by speculating any distinction between the Chamorro and Mixed (i.e., largely Chamorro) ethnic groupings. This category was composed of persons listing two or more ethnic heritages. In the census tabulations where counts for "Chamorro and other" were given, they comprise about 60 percent or 3 out of every 5 persons in the mixed ethnic category (see Bureau of the Census, 1992: page B-6 and Table 11).

Place Table 6 about here

Percentages of disabling impairments were found to be moderate to low among the Filipino elderly. In contrast to their younger and middle-age counterparts, Filipinos and Asians over age 64 years had the lowest percentages of reported impairments causing both mobility limitations (7 percent or less), and the more severe case of combined mobility and self-care disability (3 percent or less).

Consequently, the weight of service need among elderly persons is disproportionately composed of Chamorros. Turning to Table 11.7 it can be seen that the numbers of Chamorros and Filipino/Asians make-up near equal proportions of Guam's elderly population. Yet, whereas Filipinos (228) comprise less than one-third of persons with mobility or self-care disabilities (i.e., 29.2 percent), Chamorros (299) represent over half of these persons (i.e., 55.8 percent). This pattern is even greater for the more serious condition of impairments resulting in both mobility and self-care disabilities. Here, Filipinos comprise less than one-in-five persons so affected (19 percent or 65 of 350). Chamorros (238 of 350) represent two-thirds (68 percent)

of persons potentially in need of services.

Place Table 7 about here

We do not want to obviate the facts of migration or related opportunities for social services and resources as determining factors affecting the composition of Guam's populations with disabilities. These forces may be key factors to understanding the patterns found among Guam's elderly. They may also play a role in the patterns found among younger and middle-aged adults as well as difference between U.S. locations in the Pacific Basin.

Having or not having education is a social resource effecting a person's capacity to hold certain types of jobs where physical impairments are not handicapping. For example, being wheelchair bound causes no performance restriction for a computer programmer or business accountant. Education can also provide a person with an edge in understanding and obtaining alternative services in a manner that more successfully solves problems which would otherwise handicap their pursuit of well-being. For these reasons this chapter examined the distribution of adults with defined disabilities across various levels of education attainment.

Educational attainment was categorized as (a) Elementary Schooling: 1-8 years, (b) Some High School: 9-11 years, and (c) High School Diploma: 12 or more years of schooling. Not all adults on Guam have had the opportunity to even attend high school let alone complete more than eight years of schooling. This is the case for Guam's elderly, and many Filipino, Asian, or Micronesian immigrants. Even so, for most persons born after 1950 in Micronesia and Asia (e.g., age 40 years or younger) the majority have had the opportunity with high school training being more widely available. Therefore, it is important that readers interpret this data by comparing percentage distributions against the general pattern found within the total population. That is, to the extent distributions are the same, conclusions must be limited to assume that persons with disabilities have the same educational resource capacity as persons without disabling impairments. To the extent distributions differ, the data would suggest that educational resource capacity differs.

This concern with interpretation was controlled, or accounted for, by separate analyses of those under age 64 years from those age 65 years and older. Very few of the general adult population age 16 to 64 years have not had a chance to attend high school (see Table 8). Over 90 percent have at least been in or had some high school education. In contrast to the *manhoben* (younger adults) a much greater portion of the elderly population age 65 years or older (60.5 percent) have only had a middle school education or less (see Table 11.9).

Controlling for age is important for interpreting these data because older persons have had less availability of high school education, yet as we found earlier, they are also more likely to have disabling impairments. The authors assume that, regardless of age, persons with disabling impairments had the same availability of schooling as their siblings and neighbors without such

impairments. This is not to say that persons with disabilities had the same chance to achieve within available schooling, nor that their impairments were not handicaps reducing educational attainment.

Quite the opposite, the data in Table 11.8 lend support to the argument that persons with disabilities have been disadvantaged in regional school systems. But this is speculative without being able to have greater control of age in the analyses. At present we can only conclude that people with disabilities lack the resource of education more than those without disabilities. Not being able to graduate from high school contributes to greater dependency and difficulty achieving personal well-being.

Place Table 8 about here

For every measure, adults age 16 to 64 years with disabilities were two or more times more likely than the general population to only have 8 or fewer years of education. One out of five adults (21.6 percent) with either a mobility or self care limitation have not attended high school, compared to only one out of ten adults in the general population. Adults with a mobility limitation were four times more likely to have not attended high school (36.5 percent verses 9 percent).

This schooling disadvantage was found for both adult males and females, except that women appear to have had an additional discriminant. Men with a mobility limitation were three times as likely as those without disability to have limited achievement past middle school level (center panel, 30.5 percent to 9 percent). The gap was much greater for women with mobility limitation. They were five times more likely to have only middle school education than women without disability (lower panel, 43.4 percent to 9 percent). In the general population adult women showed a slight edge over men in the completion of high school (70.1 percent to 68.0 percent). But among persons with mobility limitations a greater percent of the men (43.2 percent) completed high school than did women (36.9 percent). The implication is that being a woman with an impairment added to the handicapping experience in school well beyond just having the impairment.

Turning to Table 11.9, elderly with disabilities were also found to lack the resource of education more than *manamko* without disabilities. Among these older persons the gap was not as great as was found in Table 11.8. Although nearly three fourths of elders reporting limitations had 8 or fewer years of schooling, the same was the case for almost two-thirds of the general elderly population. The availability and opportunity to attend high school was very limited for this generation. However, in more detailed analyses than shown here, the data suggest that the elderly with disability were disadvantaged in schooling. Whereas just over half of the general elderly population (56.5 percent) had achieved only 1-7 years of schooling, over two-thirds (70.1 percent) of elderly with mobility limitations fell in this lowest category of educational attainment.

Place Table 9 about here

There is clearly a need for more detailed and expanded investigations on this issue of resource disadvantage among persons with disabilities. Discrimination and disadvantage among persons with disabilities is well documented by research in the United States (Bowe, 1983; Murphey, 1987) and there is no reason not to accept the hypothesis of similar social processes on Guam. The 1990 census has now established a baseline, against which longitudinal change can be assessed if comparable census questions are repeated in the year 2000.

Labor Force Participation

Up to this point the defining consequence of people's impairments has been either "self-care" or "mobility" limitations. In this next section attention is turned to work-related disability. That is, impairments where the defining consequence is a limitation in the kind or amount of work the person can do at a job or business. Many of those reporting self-care or mobility limitations very likely defined their impairments as also limiting the work they could do. But a substantial number did not, and there were those whose impairment affected their employability but not their capacity for mobility or self-care. The questions were asked independently, and in fact fewer persons reported work-related disability while more reported self-care or mobility limitations (compare Tables 11.2 and 11.11).

These data were reported as *rates* and *ratios* following demographic convention in studies of labor force participation and employment (see Table 11.10). A "rate" most often refers to the number of cases of a defined condition in a given period of time divided by the number of persons at risk of the condition during that period (Shryock, Siegel and Associates, 1976:5-6). Here, having an impairment causing a work-related disability was a condition, and Guam's 1990 total population comprised all persons at risk of that condition. "Ratios" were used for descriptive purposes comparing the numbers of persons in separate categories expressing one group's size relative to the size of the other.

Place Tables 10 and 11 about here

For every 1,000 persons age 16 to 64 on Guam, the heart of the island's productive, employable population, 29.6 had a work-related disability. This rate varied by age from a low of 14.7 per 1,000 persons age 16 to 34 years to a high of 76.1 per 1,000 persons age 50 to 64 years. The higher rates found among males are expected because they are more often engaged in high risk occupations or military service putting them at risk of disabling impairments. This disparity was illustrated also in the ratios of males per 100 females with work disabilities. The gap increased from only 114.3 males per 100 females with work disabilities among those 16 to 34 years of age to 129.3 males per 100 females with work disabilities among those 50 to 64 years of age.

In summary, the male-female work disability ratio shows that men were at greater risk than women of having an impairment limiting their work activity. There were other gender differences. Women, more than men, were found to report their impairments prevented them from working. The ratio (i.e., percent) of men reporting their condition prevented them from working was 46.8 per 100 men with a work related limitation, compared to a ratio of 58.9 women prevented from working per 100 women with work-related disabilities. The difference remained fairly constant across the age groupings.

The influence of sex role expectations and norms about male occupations and traditional role options for women is being revealed in these gender differences. Male jobs in construction or manual labor are such that impairments are more likely defined as handicaps. Separate of this, when women have work-related impairments, they have more options for choosing not to work than men.

It is unlikely that this discrepancy is due merely to job discrimination which could deny work to women with disabilities. Examining labor force participation rates (lower panels of Table 11.10) revealed that women with work-related disabilities (716.8 per 1,000) were more likely to be working or seeking a job than nondisabled women (620.7 per 1,000).

Men with disabilities (837.7 per 1,000) were just as likely to be in the labor force as nondisabled men (842.2 per 1,000) across all of the age groupings. It was in the younger age category, persons 16 to 34 years of age, where both men and women reported higher labor force participation rates than the nondisabled.

This exploratory overview of census data raises questions needing further research. Because of the time and space needed, this chapter did not examine the labor force participation of persons reporting mobility or self-care limitations (see Table 75, U.S. Bureau of the Census, 1992). The authors encourage readers working with or interested in the situation of the disabled on Guam to pursue this more detailed area of investigation. Our examination of that data (not shown here) revealed lower rates of labor force participation. The categorical definition of persons with mobility or self-care limitations is broader and more encompassing of persons than the category of persons with defined "work-related" impairments. Among those with a mobility or self-care limitation, only 643.8 per 1,000 disabled persons age 16 to 64 years were in the labor force (compared to 792.3 per 1,000 persons with a work-related limitation). But the old adage applies. Are you looking at the glass as "half empty" or as "half full?" This labor force rate indicates two out of three persons with a mobility or self-care limitation are in the labor force. These 2,021 persons, represent 3.1 percent of Guam's total labor force population (N= 64,913).

CONCLUSION

Thirty years ago, family members on Guam provided personal care for a disabled relative who was unable to dress, bathe or eat without help, usually a female -- mother, daughter, niece or sister. These were the caregivers for dependent family members such as children, the elderly,

and anyone with an impairment. Today in the 1990s the issue of dependency remains a core problem for adults with disabilities.

Although human needs and problems of disabilities remain, Guam's society has radically changed. Today the role of the family in providing for the personal care of disabled persons is more complicated. Economic modernization has shifted the locus of our lives from being centered in and around the home to being dispersed though out the island community. The family disperses about the island for work, schooling, shopping, and entertainment. Families are less available today to provide care, including female members. This situation applies for both indigenous (Chamorro) and immigrant (other ethnic) families. The situation among immigrant families is merely intensified because their extended networks are much smaller or nonexistent on island. Furthermore, services for assisting the disabled have increased, but these, also, are dispersed around the island. Offices must be accessed to obtain assistance, and those in need must apply through established program procedures.

The demand for government intervention to help families and individuals deal with their problematic situations has increased over the past several years. Guam's Department of Vocational Rehabilitation (DVR, 1992) reported services provided to 950 persons in 1990, with 269 classified as being "severely" disabled. This may have been everyone who really needed their particular services - to "assist them to regain, preserve, or develop their ability to pursue a gainful occupation," and "conduct programs to remove barriers which may prevent persons with disabilities from living as independent as possible (DVR, 1992: 1)".

From this study the authors conclude that DVR comes close to serving the majority, if not all persons eligible for their services. Given conditions for certification of a work disability (DVR counts) versus people's self reporting (Census counts) it can be safely assumed that not everyone reporting a disabling impairment in the 1990 census needed or met medical qualifications for government assistance. Applying the 1990 Census data to DVR counts indicates they provided services to just under half (43.5 percent) of those persons reporting a work-related disability in 1990. Very likely those in greatest need were served.

Yet these data raise questions about whether or not needs are being met for those with less severe impairments, and what needs they have. DVR's clientele represent about one-third (32.2 percent) of persons age 16 to 64 years who reported a mobility or self-care disability in 1990. DVR services for their definition of severely disabled represented about half (47.7 percent) of those age 16 to 64 years identified as having impairments causing both mobility and self-care disability. Again questions are raised; what needs exist among those not seeking DVR assistance? Are they served by other programs, or do they need help in their efforts to function in the community and have satisfying life experiences.

This study found that age is a primary trait separating types of clientele with different kinds of impairments, different kinds of resultant limitations, and obviously needing different kinds of services. The largest numbers of adults with disabilities (one out of three) fall in the 16 to 34 year age bracket. Most of these cases are situations of impairments causing self-care limitations.

Older persons, on the other hand, have a much higher rate of incidence and as a group of people in the community are more likely to need services for persons with disabilities. Moreover, half of the elderly with disability have impairments causing both mobility and self-care limitations.

Ethnicity was another trait important for targeting public awareness and service programming. The Filipino community was found to have both high numbers and high rates of disability incidence. Incidence was also high among Micronesian and Asian immigrant communities. The study's finding of relatively high labor force participation among Guam's disabled age 16 to 64 years suggests a need for detailed survey research. A reasonable hypothesis is that as a more developed and service oriented economy, Guam may attract disabled persons from less developed areas. Persons with work-related disabilities are employable and can be self supporting if jobs are available where their impairments are not handicapping for work performance.

Although rates of incidence in the Chamorro community were moderate to low for Guam, their numbers as the largest single ethnicity on island mean they compose the majority of cases. Limited extended family support and emigration within the other ethnic communities makes this even more pronounced among the elderly over age 65 years. The Chamorro *manamko* comprise over half, one of every two elderly with a disability.

This exploratory study using Guam's census data makes a call for the public and government leaders to become more aware of disabilities and the disabled on the island. The developments for meeting our social responsibility to assist persons with limitations can evolve only after a basic change in our ways of thinking. Too often the disabled are discounted in island priorities because we lack meaningful counts, and the counts seem small. Too often families accommodate another dependent and fail to encourage independence. It takes great courage and perseverance to break through the mental and physical barriers placed against the disabled by family and community who fail to see them as part of Guam's mainstream.

This is only an introductory chapter to the study of people with disabilities on Guam. The census data is limited in that it aggregates people with disabilities into broad categories defined by the limitations resulting from many different impairments. But Guam's community of the disabled is not monolithic; the range, diversity and degrees of impairment remain undocumented. There are major gaps in the island's knowledge. Information about the prevalence and incidence of particular impairments is required for the specification of needs, and the design of corresponding programs or services or policies to reduce those needs.

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Table . Disability by Sex: 1990

Disability	Numbers			Percent		
	Total	Males	Females	Total	Males	Females
Civilian noninstitutionalized persons 16 to 64 years	9,254	5,151	4,103	100.0	100.0	100.0
With mobility/self-care limitation	152	83	69	1.6	1.6	1.7
With a mobility limitation	94	54	40	1.0	1.0	1.0
In labor force	16	10	6	0.2	0.2	0.1
With a self-care limitation	108	59	49	1.2	1.1	1.2
With a work disability	330	176	154	3.6	3.4	3.8
In labor force	109	69	40	1.2	1.3	1.0
Prevented from work	177	90	87	1.9	1.7	2.1
No work disability	8,924	4,975	3,949	96.4	96.6	96.2
In labor force	5,267	3,089	2,178	56.9	60.0	53.1

Source: 1990 CPH-6-G, Table 41.

Table 46. Age, Marital Status, and Fertility by Region: 1990
(For definitions of terms and meanings of symbols, see text)

Characteristics	All Persons	North	Central	South
AGE				
All persons	133,152	62,614	40,965	29,573
Under 5 years	15,097	6,864	4,745	3,488
5 to 9 years.	13,078	6,101	3,864	3,113
10 to 14 years.	11,777	5,373	3,606	2,798
15 to 19 years.	12,121	5,268	3,779	3,074
20 to 24 years.	14,379	6,226	4,381	3,772
25 to 29 years.	13,490	6,503	4,133	2,854
30 to 34 years.	11,786	5,704	3,509	2,573
35 to 39 years.	10,186	4,996	3,050	2,140
40 to 44 years.	8,143	4,050	2,501	1,592
45 to 49 years.	5,471	2,758	1,700	1,013
50 to 54 years.	4,808	2,429	1,515	864
55 to 59 years.	4,059	2,049	1,302	708
60 to 64 years.	3,527	1,798	1,115	614
65 to 69 years.	2,433	1,268	761	404
70 to 74 years.	1,368	645	442	281
75 to 79 years.	794	334	303	157
80 to 84 years.	376	148	153	75
85 years and over	259	100	106	53
16 years and over	90,990	43,237	28,070	19,683
Median.	25.0	26.0	25.1	22.8
Female				
Under 5 years	62,207	29,393	19,588	13,226
5 to 9 years.	7,406	3,394	2,322	1,690
10 to 14 years.	6,422	3,023	1,881	1,518
15 to 19 years.	5,743	2,641	1,751	1,351
20 to 24 years.	5,673	2,550	1,819	1,304
25 to 29 years.	6,007	2,870	1,971	1,166
30 to 34 years.	6,168	2,998	1,934	1,236
35 to 39 years.	5,442	2,620	1,679	1,143
40 to 44 years.	4,665	2,229	1,447	989
45 to 49 years.	3,694	1,774	1,154	766
45 to 49 years.	2,444	1,173	794	477
50 to 54 years.	2,290	1,142	712	436
55 to 59 years.	1,947	994	612	341
60 to 64 years.	1,606	811	541	254
65 to 69 years.	1,121	555	356	210
70 to 74 years.	741	317	257	167
75 to 79 years.	444	170	178	96
80 to 84 years.	219	78	94	47
85 years and over	175	54	86	35
16 years and over	41,550	19,825	13,304	8,421
Median.	24.9	25.3	25.1	23.3
MARITAL STATUS				
Males 15 years and over.				
Never married	50,564	23,941	15,116	11,507
Now married, except separated	18,341	7,334	5,981	5,026
Separated	29,048	15,185	8,080	5,783
Widowed	436	199	132	105
Divorced.	674	285	248	141
Divorced.	2,065	938	675	452
Females 15 years and over.				
Never married	42,636	20,335	13,634	8,667
Now married, except separated	12,418	5,386	4,398	2,634
Separated	24,763	12,563	7,230	4,970
Widowed	470	201	178	91
Divorced.	2,519	1,055	897	567
Divorced.	2,466	1,130	931	405

Table 46. Age, Marital Status, and Fertility by Region: 1990
(For definitions of terms and meanings of symbols, see text)

Characteristics	All Persons	North	Central	South
FERTILITY				
Women 15 to 19 years	5,673	2,550	1,819	1,304
Children ever born	824	344	253	227
Women ever married	329	156	102	71
Children ever born	210	86	69	55
Women 20 to 24 years	6,007	2,870	1,971	1,166
Children ever born	4,632	2,043	1,518	1,071
Women ever married	2,720	1,419	796	505
Children ever born	3,003	1,514	881	608
Women 25 to 29 years	6,168	2,998	1,934	1,236
Children ever born	8,928	4,144	2,776	2,008
Women ever married	4,461	2,254	1,274	933
Children ever born	7,404	3,591	2,171	1,642
Women 30 to 34 years	5,442	2,620	1,679	1,143
Children ever born	11,091	5,055	3,449	2,587
Women ever married	4,596	2,260	1,358	978
Children ever born	10,064	4,699	3,051	2,314
Women 35 to 39 years	4,665	2,229	1,447	989
Children ever born	11,762	5,327	3,588	2,847
Women ever married	4,235	2,059	1,260	916
Children ever born	11,280	5,142	3,399	2,739
Women 40 to 44 years	3,694	1,774	1,154	766
Children ever born	10,963	4,947	3,433	2,583
Women ever married	3,439	1,679	1,054	706
Children ever born	10,661	4,860	3,328	2,473
Women 45 to 49 years	2,444	1,173	794	477
Children ever born	8,595	3,821	2,938	1,836
No Children	252	127	81	44
1 child	211	118	60	33
2 children	432	225	139	68
3 children	438	223	131	84
4 children	395	197	119	79
5 children	269	109	104	56
6 children	179	75	57	47
7 or more children	268	99	103	66
Women ever married	2,317	1,129	743	445
Children ever born	8,441	3,776	2,882	1,783

Table 47. Citizenship and Year of Entry by Region: 1990
 (For definitions of terms and meanings of symbols, see text)

Characteristics	All Persons	North	Central	South
CITIZENSHIP				
All persons	133,152	62,614	40,965	29,573
Citizen or national	112,546	49,166	35,620	27,760
Born in Guam	63,504	23,273	23,719	16,512
Born in the U.S. or other U.S. Territory or Commonwealth	30,255	13,804	7,897	8,554
Born abroad, U.S. parent(s)	2,701	1,430	667	604
Naturalized citizen	16,086	10,659	3,337	2,090
Not a citizen or national	20,606	13,448	5,345	1,813
Permanent residence	13,805	9,248	3,233	1,324
Temporary residence	6,801	4,200	2,112	489
Female	62,207	29,393	19,588	13,226
Citizen or national	52,676	23,337	17,115	12,224
Born in Guam	31,821	11,654	11,896	8,271
Born in the U.S. or other U.S. Territory or Commonwealth	11,878	5,835	3,310	2,733
Born abroad, U.S. parent(s)	1,244	651	319	274
Naturalized citizen	7,733	5,197	1,590	946
Not a citizen or national	9,531	6,056	2,473	1,002
Permanent residence	7,537	4,985	1,749	803
Temporary residence	1,994	1,071	724	199