

DRAFT

Intergenerational Coresidence Among Elderly Pacific Islander Americans

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INTRODUCTION

From a demographic perspective, the lives of Pacific Island elders in the United States remain largely unexplored. This knowledge gap is the result of a number of factors including the small size of the Pacific Island population, the historic inability on the part of government statistical agencies to collect small population statistics and the fluid nature of Pacific Island self identification. All of these factors have worked together to limit our understanding of this small, though rapidly growing component of the US population.

Very few resources allow for the detailed analysis of Pacific Island populations. At present there are no national surveys that provide statistically efficient measures of this population (Chen, 1995; Williams and Collins, 1995; Srinivasan and Gullimeria, 2000). Universe data exists for vital events such as births, deaths and marriage, have been available since the mid 1990's (Braun et al, 1997); unfortunately these sources contain little or no information on family structure or detailed socio-demographic characteristics. Census data has provided some level of summary information in these reports using tabulations from its Standard Tape Files (STF) but these tables generally provides only a limited amount of information on a very limited number of topics. The variation found in the definitions that identified Pacific Islanders as opposed to Asians and others in early census publications also limits the comparability of information across time (Berringer et al, 1993).

The 1980 Census of Population represented a historical turning point in this trend. This Census presented the first opportunity to systematically examine the characteristics of Pacific Islanders and other micro-minority populations without having direct access to confidential census data. The 1980 Census marked the first release of the 5 percent Public Use Microsample

(PUMS) which provided a large enough sample to perform rigorous analysis on Pacific Island populations. Similar 5 percent PUMS files have been subsequently released for the 1990 and 2000 Census of population providing the potential for analysis across a three decade period.

While far from ideal, the PUMS files do represent the most robust and informative data resource on the lives of Pacific Islanders but as of the present time their potential has not been fully exploited. Outside of researchers such as Ahlburg and Levin (1990) there has been little published research on Pacific Island populations using PUMS data. This may be due, at least in part, to the technical difficulties involved in extracting analysis files out of the PUMS. Similarly, the limited number of questions in the census questionnaire and its decennial cross sectional structure make some types of analysis difficult to perform compared to other periodic and longitudinal studies. Despite limitations, however, the PUMS represents an important and underutilized resource that can provide meaningful understanding of the lives of Pacific Islanders in the United States.

Using the recently released 2000 Census PUMS files this paper presents baseline information on the household and individual characteristic of Pacific Island elders living in the United States. As so little is known about the characteristics of this micro-minority population, this paper begins with a series of basic indicators highlighting the heterogeneity among the Pacific Islander population. In a direct application of the census data as a research tool we test a series of multivariate models on likelihood of living in a complex household, being the head of a NHPI household and the risks of disability controlling for Pacific Island ethnicities.

Living Arrangements of Older Persons

Research on the relationship between living arrangements and older persons' well-being represents an important issue in addressing "the degree to which co-residence with children or

other kin enhances or depresses the well-being of older persons” (United Nations, 2001). This concern is particularly relevant to older Pacific Islanders especially “Island-born elders who leave the islands to join family members in the U.S. to provide cheap and reliable childcare and domestic duties” (Barker 1991) and do not qualify for entitlement programs such as social security, medicare or Medicaid (Janes 1990; Small, 1997). In most Pacific Island cultures, elders are respected for their knowledge, experiences and contributions to the community and that the family represents a key source of support of older parents and adults (Blaisdell & Mokuau, 1991; Braun and Browne, 1998; Holmes and Rhoads, 1987; Small, 1997; Panapasa, 2000). However, the modernization process presents a variety of challenges to the traditional belief system toward elders as families cope with the daily needs of young children, maintain a home, and fulfill other social obligations such as remittances to the Islands. Recent research has found negative relationship between modernization and the welfare of Pacific Island elders (Barker 1997; Panapasa 2002; Panapasa and McNally, 1995; McNally, 2003; Pearson, 1992). A systematic analysis of the household structure of Pacific Island elders presented in this paper provides similarities with these previous findings.

DATA AND METHODS

The data used in this analysis is drawn from the 5 percent Public Use Micro-sample (PUMS) of 2000 Census of Population. Public Use Microdata Samples are chosen from the universe of Census 2000 Long Form records. Every person and housing unit in the United States was asked basic demographic and housing questions (for example, race, age, and relationship to householder). A sample of these people was asked more detailed questions about items, such as income, occupation, and housing costs. The sampling unit for the detailed long form

questionnaire in the Census 2000 was the housing unit and included all occupants of the household. PUMS files represent a stratified sample of the population receiving the long form created by subsampling the full census sample (approximately 15.8 percent of all housing units) that received census long form questionnaires. The Census Bureau creates two independent public use samples for analysis of US population trends and behaviors. Designated the “5 percent” and “1 percent,” samples each features a different geographic scheme for the selection of cases contained within the analysis samples. Nationwide, the Census 2000 5-percent sample provides the user records for over 14 million people and over 5 million housing units. For the 1-percent sample, there are records for over 2.8 million people and over 1 million housing units.¹

The present analysis employs all Pacific Island households included in the 5 percent PUMS released as part of the 2000 Census of population. This data resource represents the best publicly available resource that provides detailed individual level information on social, demographic and economic information on micro-minority populations such as Pacific Islander. In conducting this analysis one still faces clear limitations in the use of PUMS files for micro-minority research. The fact that the reliability of a sample declines with reduced sample size is an ongoing challenge to all studies of small or rare populations. Consequently, the choice of a sample always represents a balance between the level of precision desired and the resources available for working with microdata files.

Extracting a statistically reliable sample of micro-minority populations such as Pacific Islanders represent a significant challenge even to samples as large the 5% PUMS files. Fortunately, Census demographers have extensive experience in dealing with these limitations and a number of guidelines have been established to help estimate the potential impacts of

¹ A thorough discussion of the sample design for the PUMS can be found in Chapter 5 of the Census 2000, Public Use Microdata Sample, (PUMS), United States, Technical Documentation, prepared by the U.S. Census Bureau, 2003

sampling error in these kinds of models. Even so results emerging from such analysis need to be interpreted conservatively until their efficacy can be tested against emerging sources such as 100% files now made available within Census Enclaves.

Sample Construction

The sample employed in the present analysis was created using selection criteria that maximized the sample size of NHPI households and provided the authors flexibility in defining and specific types of Pacific Island subgroups to be examined. Pacific Island households were initially defined as any households that contained one or more individuals of any age that were identified as being of Native Hawaiian or Other Pacific Island ethnicity. This broad definition maximizes the number of Pacific Island households and also retains non-Pacific Islander within the household as part of the broader analysis sample. While these individuals are not employed in all stages of the present analysis, they represent an important component for understanding heterogeneity within households. Fifty-two individual State level files (including Washington DC and Puerto Rico) that make up the 5 percent sample and provide a combined sample of over 16 million noninstitutionalized respondents were generated.² From this massive sample the authors extracted all households that contained one or more individuals who identified themselves as being of Native Hawaiian or Pacific Island race (either alone or in combination with other races). Even when using such a broad definition for our target population was immediately reduced to 63,909 individuals contained within 17,772 households representing 1,305,000 individuals of all ages and racial groups in the United States who were either of NHPI extraction or coresided with an NHPI individual.

As our current analysis focuses upon the characteristics and composition of the aged and their households the next step was to further restrict the sample to older persons aged 65 and

² We do not examine institutionalized populations in this paper.

older residing in NHPI households as of the time of census administration. This selection reduced the size of the analysis sample to 1,830 households that contained a sample of 8,821 individuals of all ages and 3,464 individuals aged 65 years or older. Of this sample of older persons we had a total NHPI analysis sample of 1,997 aged individuals of Pacific Island extraction.

Heterogeneity within Pacific Islanders

The next selection criteria dealt with stratifying the population of older persons into rational subcategories that reflect the ethnic and social heterogeneity within Pacific Island populations. Much in the same way that the “model minority” thesis has been dispelled among Asian populations in the face of a growing recognition of how heterogeneity and unrealistic assumptions regarding behavior has resulted in unmet need and inefficient policy planning, Pacific Islanders need to be recognized from the onset as a complex and extremely heterogeneous population. Micronumerosity does not discount internal variation but it does place challenges on efficient sample design and analysis (McNally, 2001). Still, the alternative is to accept the unfounded assumption that Pacific Islanders can be aggregated into a single homogenous social group and risk inconsistent analysis and poorly guided policy development in a severely underserved community.

In the face of severe sample restrictions, the analysis set of 3,464 individuals aged 65 and older living in NHPI households is stratified into four distinct types of older persons.

1. *Older persons of Hawaiian ethnicity:* These are individuals who are identified as being Hawaiian only (regardless of ancestry). This represents 528 respondents in our sample.
2. *Older persons of Other Pacific Island ethnicity:* These are individuals who are identified as being of Pacific Island ethnicity only (regardless of ancestry). Including peoples of

Polynesian (Samoan, Tongan), Micronesian (Chamorro, Marshall Islands) and Melanesian (Fiji, Papua New Guinea) extraction. This represents 934 respondents in our sample.

3. *Older persons of Pacific Island and Other Race combinations:* These are individuals who identified themselves as being of more than one race, with at least one of their identified races being Native Hawaiian or Other Pacific Islander (regardless of ancestry). This represents 406 respondents in our sample.
4. *Older persons not of Pacific Island ethnicity:* These are individuals who live in a Pacific Island household but who are identified as being of a non-Pacific Island race; either alone or in combination (regardless of ancestry). This represents 1,467 respondents in our sample.

These four groups represent very distinct subpopulations in terms of social organization, political direction, citizenship and migration status and cultural organization. Even within these groups there is future heterogeneity that could be explored but sample size limits our ability to pursue additional stratification. As our goal in this analysis is to provide baseline information on the household structure of the Pacific Island aged population in the United States the defined subpopulations will provide a useful starting point for future research.

In the following sections we present bivariate and multivariate findings on the composition of the Pacific Island aged population.

RESULTS

The Older Pacific Islander Americans

Table 2 presents distributions of selected characteristics for NHPI households containing one or more older persons aged 65 or over. These household distributions are compared to those of Asian households and all households in the United States containing one or more older persons aged 65 or over. The first striking finding is the sheer size difference in the number of households. Even using a generous definition of what makes a “Pacific Island” household we have a weighted total of 50,121 Pacific Island Households as opposed to 549,161 Asian households and 24,384,716 households nationwide with at least one aged individual in residence. This reflects the microminority status of Pacific Island populations as compared even to the relatively small Asian population in the United States.

Looking at homeownership as summarized in Figure 1, NHPI households (Column 1) differ markedly from the US norm. While 53 percent of all US elders live in a home that is owned “free and clear” this is true of only 26 percent of NHPI households with an elder resident. Among NHPI subpopulations, the Other Pacific Island (OPI) group (Column 3) have the lowest rates of living in a home without a mortgage at 16 percent and this group also has the highest percent of their aged living in a rental unit (41 percent compared to 20 percent for the US). Overall, NHPI elder households compare more directly to Asian elder households with the exception of the relatively high rate of NHPI older persons who live in a household without any rent payment. Almost 3 percent of all NHPI elder households reported this residential arrangement as compared to 2 percent for both Asian elder households and all US households with an older person in residence.

Looking at measures of household composition, remarkable stability is seen in the average number of persons 65 and older with all groups considered reporting approximately 1.3 older persons per household regardless of racial or ethnic identification. More variation is seen in overall household size with the US reporting 2 persons on average in elder households, while NHPI elder households reported an average of 3.7 persons per household while OPI and Non-NHPI elder households reported the highest household sizes with 4.5 and 4.2 persons on average. The households of Hawaiian elders and NHPI of Mixed race were the smallest with 3 persons on average. Both NHPI and Asian elder households reflected much higher numbers of children under 18 compared to the US average. While the US overall only reported approximately one child in residence for every 10 elder households, Asian elder households reported 6 children for every 10 households and NHPI elder households reported 7 children for every 10 households. Among NHPI subpopulations, Hawaiian and NHPI of Mixed Race reported the lowest levels of children in residence with 5 children for every 10 aged households while non-NHPI elder households reported 8 children for every 10 elder households. OPI elder households had the highest average number of children under 18 with 12 children in residence for every 10 households, or on average, at least one child in every OPI elder household. This suggests that both the density and complexity of OPI elder households may differ markedly from other NHPI households.

Figure 2 provides a more detailed look at overall density in NHPI households. We measure density in two ways. Our first measure looks at a standard measure of density which is the ratio of the number of rooms in the house to the number of people in the household. The second measure is the ratio of the number of bedrooms in the house to the number of people. While both measures address issues of overcrowding, the second measure also addresses issues

of privacy which has been posited by numerous gerontological researchers as a prime motivation away from complex households among older persons (Cite).

In general NHPI households face markedly higher rates of overall household density when compared to the US as a whole. While the average household density faced by older persons in the US is .4 (about 10 rooms for a 4 person household), NHPI elder household average .8 (about 10 rooms for an 8 person household). Again OPI elder households have the highest density at (1.08) with slightly more than one person for each room in the household on average. Bedroom density ratios tend to be even higher with the US total reflecting slightly more than one bedroom for each resident in elder household (.8) while both NHPI and Asian elder households report almost double these density levels with 1.5 and 1.6 persons per bedroom on average. OPI elder households report the highest bedroom densities with 2 persons per bedroom followed by non-NHPI elder households with 1.6 persons per bedroom. Again Hawaiian and Mixed Race NHPI elder households had the lowest densities at 1.3 and 1.2 persons per bedroom. Interestingly, both Hawaiians and OPI elder households reported the highest rates of households lacking any formally designated bedroom (6.7 percent and 5.2 percent of all households respectively). Overall, these density measures suggest higher levels of complexity within and across Pacific Island elder households compared the US as a whole.

Figure 3 presents information on the median household and family income of NHPI elder households. Overall, household and family income levels tend to be higher across NHPI elder households when compared to US elder households. While US elder households reported median household incomes of \$28,600 in 1999 and median family incomes of \$17,400, NHPI elder households reported median household income of \$47,200 and median family income of \$42,200. While this suggests that NHPI elder households may be doing much better financially

than other US elder households, this differential is largely an artifact of the greater complexity of NHPI households which tend to have more individuals within the household in productive labor force ages and as such these members can contribute larger sums to the cumulative household and family income measures.

This assumption is supported by the findings for level of poverty for older persons with households as presented in Figure 4. Despite the relatively higher median income levels among NHPI elder households, the overall poverty levels for NHPI populations are higher than those seen for the US elder population as a whole (15.6 percent in poverty as opposed to 15 percent).³ OPI and Mixed Race NHPI elders faced the highest rates of poverty 17.3 percent and 19.3 percent in poverty respectively. Future research will focus on more formally decomposing these relationships but it is important not to misinterpret income information as it is always a compilation of numerous factors that may or may not reflect a positive household economy.

The following sections move on to comparisons of individual characteristics of older persons who live within NHPI households in the United States.

Person Level Characteristics

Figures 5 and 6 present summary data from the relationship distributions of older persons aged 65 and older in Table 3. Issues of headship and coresidence are seen as central concerns for NHPI populations as they reflect levels of household power on one hand and instrumental support within households. As would be expected in the United States, 90 percent or more of all older persons regardless of race or ethnicity reported they were either the head or spouse of head, or a coresiding parent in the home of an adult child. The variation in the way these two very different residential patterns are distributed among NHPI elders as opposed to the population

³ We conservatively assigned people as being in poverty when their rate of poverty is 125% or less.

generally suggests that the lives of NHPI elders remain quite distinct from that experienced by majority of the aged population in the US.

According to Figure 5, NHPI households have levels of aged headship that are consistently lower than for older persons in the United States as a whole. While 91 percent of all persons aged 65 and older in the United States reported they were either the head of their household or the spouse of the household head, only 72 percent of NHPI older persons were found in this category. Within group variation is also quite marked with Hawaiian and Mixed Race NHPI elders reporting the highest levels of headship/spouse of head (81 percent and 78 percent respectively) while OPI elders reported the lowest levels of headship at 56 percent. The rate of headship seen for the OPI elders was even lower than Asian elders who reported overall headship rates of 63 percent which suggests that headship among NHPI is intermediate between Asian groups and the US aged population as a whole.

Figure 6 presents the proportion of older persons who live in the home of an adult child and shows a very different pattern of residential choice. The rare nature of adult child/parent coresidence in the US reflected by the fact that only 6 percent of older persons are found in this household form nationwide. Among NHPI older persons this proportion is over 3 times as great with 18 percent of all NHPI aged persons reporting they live in the home of an adult child. Supporting the inference that NHPI populations are somewhat intermediary to Asian populations and the US as a whole it is seen that 30 percent of Asian elder live in the home of an adult child, a proportion matched only by OPI elders of whom 32 percent lived with in the home of their adult child. Of all NHPI elders, Hawaiians had the lowest rate of coresidence in homes of an adult child at 10% followed by Mixed Race NHPI's at 13 percent and non-NHPI elders at 20 percent. This level of within group variation suggests that levels of household organization

differ in measurable ways across different types of NHPI households and may be a response to different cultural desires for coresidence or issues of economic need.

Figure 7 presents educational attainment measures for NHPI older persons. The most striking difference between aged NHPI and the overall US older population is the high rates of NHPI elders with no completed schooling. While only 2.5 percent of all US elders reported no lifetime education, more than twice the number of NHPI reported this experience (5.8 percent). Within group variation is also quite marked with OPI elders reporting the highest rates of no formal education (10 percent) followed by non-NHPI elders and Mixed Race NHPI at 5.7 percent and 5.8 percent. Hawaiian elders reported much lower rates of no formal education at 2.1 percent comparing quite favorably with the US as a whole. While the proportion of NHPI elders reporting they completed grade school and high school were largely comparable to the US as a whole regardless of NHPI subpopulation, NHPI elders lagged behind the nation in the proportion of elders with either a college degree or advanced graduate or professional education. With the exception of Mixed Race NHPI's, Pacific Island elders with advanced degrees were all below the proportion reported nationally with Hawaiian and OPI elders reporting the lowest levels with less than 3% of these older persons reporting post bachelor education. As lower levels of education are highly correlated with poverty, unmet need and inadequate retirement incomes, these educational findings suggest NHPI elders' potential face higher risks for these economic and health related concerns.

The presence of spouse, particularly for men can significantly enhance the quality of later life and an examination of marital status among NHPI population presented in Table 3 finds that patterns of marital transitions among this population are largely consistent with those seen for the US and Asian elder population. While Pacific Islanders do face higher rates of being married

without their spouse being present in the household, the fact that Pacific Islanders have higher rates of complex living when compared to the US may represent a compensating mechanism in response to the economic inefficiencies introduced by low educational attainment. In general, NHPI elders seem to have access to a spouse, face divorce, widowhood and separation in proportions not unlike the US as a whole.

The type of citizenship or naturalization among NHPI elders is of particular interest in understanding potential areas of unmet need the risk of poverty among this population. This variable is also important in measuring the impacts of heterogeneity within NHPI populations. The distribution of citizenship among NHPI older persons is presented in Table 3. Overall, 70 percent of NHPI elders were born in the US compared to 90 percent of the US aged population and 21 percent of Asian elders. Among the NHPI populations, Hawaiian elders are uniformly born in the US (98 percent) while only 26 percent of OPI elders were born in the territorial states with 70 percent of Mixed Race NHPI and 74 percent of non-NHPI elders reporting the US as their birthplace.

Other forms of citizenship and immigration status reported in Table 3 are summarized in Figure 11. This figure shows that citizenship by naturalization is the most common path for most NHPI elders not born in the US as is also the case for Asian elders. The one clearly divergent group is OPI elders. Here it can be seen that while 22 percent of OPI elders have become naturalized citizens of the US, 34 percent report their place of as one of the US territories (primarily Guam and American Samoa). OPI elders also represent the largest group of NHPI elders who have not sought citizenship in the US (17 percent). Similar patterns are also seen in the measure of English proficiency presented in Table 3. While small sample size limits our ability to explore the impacts of this high level of internal heterogeneity among OPI elders it

seems clear that these factors may be playing a role in the consistently lower levels of economic and household achievement seen in this subpopulation as compared to other NHPI populations.

While the potential for exploring issues of grandparenting and caregiving by the elderly is one of the great attractions of the 2000 which asks these questions for the first time, the basis analysis performed in this paper offers little insight. While both NHPI and Asians elders report much higher rates of having available grandchildren compared to the US older population (approximately 25 percent compared to 5 percent) the proportions of grandparents who have actual responsibility for grandchildren is uniformly low across all groups from a low of 1 percent of all aged among the US population and a high of only 7 percent among non-NHPI elders living in NHPI households. While future analysis will explore more sophisticated examinations of grandparenting relationships, bivariate differences between groups are largely unremarkable.

Impacts of Disability and Health

The final section of this analysis addresses the issue of disability among NHPI elders. Disability and health are complex issue that the 2000 Census has attempted to capture in a series of questions regarding specific types of disability outcomes. While not a perfect set of measures it does provide useful information if used with caution. This analysis briefly touches on some of the applications of the disability questions and their use from bivariate and multivariate perspectives.

Figure 12 summarizes the individual disability types across a three dimensional surface which is the appropriate way to think about disability issues. While the arrangement of disability types is arbitrary in terms of metric, they have been arranged to reflect the monotonic path of least frequently to most frequently reported conditions. Overall physical disabilities are the most commonly reported form of disability and mental disability the least commonly reported

regardless of ethnicity of subpopulation group. Clearly many of the disability types are interrelated with the ability to go to work, go out and provide self care are related to other types of physical, sensory and mental disabilities. Disentangling potential overlaps in disability status and identifying unifying trends in reported disability status is seen as a major task for future analysis. One this is clear, however, this problem of overlap and collinearity is clearly overstating levels of disability among all groups with summary disability for the aged running unacceptably high at 40 percent or more disabled for all elderly aged 6 and older.

One way to begin to address these issues is through multivariate analysis where the impacts of numerous covariates can be simultaneously controlled for. Table 4 summarizes a series of logistic regression runs that consider the risks of disability and their potential impacts on being a household head and of living within a complex household. While the complete series of regressions is included as appendix materials, Table 4 focuses upon a small set of specific findings.

Figure 13 presents summary likelihoods for the risk of Hawaiians, OPI and Mix Race NHPI to report experiencing specific disability types. These likelihoods are the racial subgroup net effects on these likelihoods after controlling for the impacts of the following covariates:

Age in Single Years

Male

Hawaiian Ethnicity

Other Pacific Islander

Currently Married

Less Than High School Education

More Than High School Education

Log of Household Income

Linguistically Isolated Household

Number of Workers in Family

Lives in a Complex Household

According to Figure 13, the focus of disability has shifted from that presented in the bivariate summary of Figure 12. Controlling for covariates this Figure examines the specific likelihoods that Hawaiian and OPI elders are at greater or lesser risk of experiencing a specific form of disability when compared to Mixed Race NHPI elders. While the risk of having a *Sensory Disability* is indistinguishable between Hawaiian and Mixed Race NHPI elder, OPI elders face a 12 percent greater risk of having this disability. Similar findings are seen for *Mental Disabilities* and disabilities which limit ones *Ability to Go Out*. In both cases the risks of experiencing these disabilities are largely indistinguishable between Hawaiians and Mixed Race NHPI elders while OPI elders face heightened risks for these disabilities. A more marked set of outcomes is the risks of having either a *Physical Disability* or a *Self-Care Disability* with Hawaiian elders having a reduced risk of experiencing these disabilities compared to Mixed Race NHPI elders while OPI continue to face a heightened risk of disability. *Employment Disabilities* represent the only reported disability where Hawaiian elders face a heightened risk compared to Mixed Race NHPI and OPI elders with Hawaiian elders being 41 percent more likely to face this form of impairment.

Disability also plays a role in household outcomes. The second regression presented in Table 4 looks at the likelihoods for NHPI subpopulations to live in complex households. Controlling for a similar set of covariates as in the disability runs we also introduce the number of disabilities reported by an elder as one of the control variables. The impacts of disability on complex living are summarized in Figure 14 and show that increasing levels of disability result in an increased likelihood of living in a complex household. Among Hawaiians, each increase in the number of disabilities results in a 14 percent increase in the likelihood that a Hawaiian elder will live in a complex household. A similar increase is seen for OPI elders with a 16 percent

increase for each additional disability. Among Mixed Race NHPI this effect is largely muted with only a 1 percent increase in likelihood but the direction of change is positive. These findings suggest that complex households offer a protective function for disabled NHPI elders, offering a potential refuge and support system as disabilities impact their levels of autonomy.

Disability also has negative impacts for issues of household power such as being the household head. In the final regression reported in Table 4 it can be seen that while disability increases the likelihood than a NHPI elder to live in a complex households they are 55 percent to 66 percent less likely to be the heads of these households. Thus, while complex households can be seen as a refuge in one way, they also represent a loss of power and autonomy that are associated with increased dependency.

SUMMARY

This work represents a preliminary examination of some of the new information on Pacific Island populations emerging from the 2000 Census of Population. The Census has traditionally represented the only reliable source to obtain efficient measures of micro-minority populations such as Native Hawaiians and other Pacific Islanders. Despite the presence of large sample PUMS files since the 1980 Census, little detailed analysis of the lives of NHPI populations has been done to date. This analysis represents only a first step in a very broad agenda to address a number of key aspects of the socio-demographic lives of this understudied population.

It is increasingly clear that more work is needed to better understand the unmet needs of subpopulations such as Native Hawaiian Pacific Island elders. The disaggregation of a sample extract of NHPI households from 2000 US census is a major step toward building a baseline of

central indicators about this group. When combined with existing and emerging small sample surveys and ethnographic information these data will form an effective set of tools to guide policy and program development to positively impact Pacific Island populations.

The direct findings from this paper is relatively straightforward. We began with an operating assumption that NHPI populations are measurably different from the US population as a whole and from the Asian populations they have traditionally been aggregated with for statistical reporting. We also assumed that internal heterogeneity within Pacific Island populations was an important factor that needed to be controlled for. We divided NHPI elders into four distinct subpopulations: Hawaiians, Other Pacific Islanders, Mixed Race NHPI and non-NHPI elders who reside in a household with other NHPI residents.

Our substantive findings support this simple stratification strategy. Consistently, throughout the analysis we found marked differences in the four groups when examining a variety of household and individual characteristics. In general it was seen that OPI elders were worse off than other groups, while Hawaiian elders seem to benefit from a long association with the United States. OPI elders faced the most serious problems in terms of being linguistically isolated, under educated and suffering from higher risks of disability. Mixed Race NHPI and non-NHPI living in NHPI households also seemed to share in the problems faced by all NHPI groups in common. While heterogeneity impacted within group differences it consistently found that NHPI elders were worse off on most measures when compared to the general population of older persons in the United States. While NHPI elders seem to share many of the same problems as Asian elders, there were also sharp differences between the groups that argue for the need to treat them as independent populations.

While this work is preliminary it is not tentative. Clear differences were found as part of this analysis and these differences need to be further explored. Future work will examine issues of poverty, employment and income effects on household organization. Additional models will be employed to tease out more refined outcomes than can be presented with the current data available. Overall it is clear that NHPI elders are at risk of facing unmet need, while they seem able to fall back on the family for care when they become disabled it is unclear whether the quality of the available care meets their needs or simply represents an emergency response to an unanticipated health challenge. Issues of migration, naturalization and intermarriage all need to be examined as well. NHPI populations are homogenous only in terms of their uniform need for better research and understanding. In terms of their socio-demographic structure they are a uniquely heterogeneous population and this heterogeneity needs to be understood before intelligent policy can be developed to address their growing problems of poverty and unmet need.

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