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Demography of Living Arrangements Among Oldest-Old Mexican Americans: Evidence From the Hispanic Epidemiologic Study of the Elderly

Phillip A. Cantu, MA¹ and Jacqueline L. Angel, PhD²

¹Population Research Center and Department of Sociology and ²LBJ School of Public Affairs and Department of Sociology, The University of Texas at Austin

²LBJ School of Public Affairs and Department of Sociology, University of Texas at Austin

Abstract

Objective: In this article, we examine the demographics of living arrangements and household headship status among Mexican-origin individuals aged 85+ years.

Method: Data come from the Hispanic Established Populations for the Epidemiologic Study of the Elderly (H-EPESE) caregiver and respondent surveys.

Results: Finances of the elderly individual and their caregiver inform living arrangement decisions. Physical and cognitive disability differentiate among living arrangements: The most mentally and physically impaired are most likely to live with others and less likely to be the head of the household.

Discussion: Motivations for living with others are clearly more complex than simple filial piety considerations might hold. Extended living arrangements provide concrete financial and instrumental benefits for both elderly parents and their adult child caregiver. Future research should address the question of the capacity of the Mexican American family to provide care for elderly parents in the face of major demographic and social changes.

Keywords

living arrangements; demography; housing; caregiving; Hispanics

As the population of the United States ages, the oldest-old, those over 85, are projected to become the fastest-growing segment of the elderly population. By 2050, an estimated 17.9 million individuals, or 4.5% of the total U.S. population, will be 85 years or older (Ortman, Velkoff, & Hogan, 2014). Even with advances in the control of chronic disease and more

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Corresponding Author: Phillip A. Cantu, The University of Texas at Austin, Population Research Center, 305 E, 23rd Street, Stop G1800, CLA 2.602, Austin, TX 78712-1699. cantuphillip@utexas.edu.

Authors' Note

Phillip A. Cantu conducted the data analysis and wrote the first draft of this article. Jacqueline L. Angel supervised the writing of this manuscript and edited multiple drafts.

Declaration of Conflicting Interests

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effective treatments for heart disease and cancer, morbidity has not been greatly compressed. As a result, protracted periods of incapacity and dependency and the need for formal and informal assistance often temper the benefit of greater longevity (R. J. Angel, Angel, & Hill, 2014; Berlau, Corrada, Peltz, & Kawas, 2012; Samper-Ternent et al., 2012).

Homeownership and its potential consequences for the living arrangements of aging parents raise intriguing questions. If an aging parent owns the home in which they and their adult children live, the shared living arrangement may reflect the inability of those adult children to live independently due to a lack of resources. If, however, an adult child is the head of household the situation may reflect the fact that a parent has moved in with their adult children who have greater resources. Of course, it might also be the case that the parent has transferred real or nominal ownership of the home to an adult child. These possibilities can potentially affect the amount of influence and control an aging parent has in determining where and with whom he or she lives.

As of 2012, Hispanic origin elderly individuals made up 5.6% of the U.S. population age 85 and older (Ortman et al., 2014). This population is projected to be nearly 6 times larger and make up 12.5% of the oldest-old population by 2050 (Ortman et al., 2014). The majority of those individuals will be of Mexican origin. Although most frail elderly individuals live at home or in the community rather than in long-term care facilities (Silverstein & Wang, 2015), we know little about the role of homeownership in determining different living arrangements among community-dwelling elderly individuals. Understanding the material correlates of living arrangements is important, given the fact that most elderly individuals and their families must eventually confront the reality of serious dependency. At some point, families must make difficult decisions concerning where an aging parent will live. In the United States, more than half of those over 85 suffer from a serious disability, and nearly one in five reside in a nursing home (Poon, Jang, Reynolds, & McCarthy, 2005). The consequences of serious disability are potentially more serious for older Mexican-origin individuals who have life expectancies at 65 that are longer than those of non-Hispanic Whites, but who spend on average more than half of the years past 65 with serious functional limitations (R. J. Angel et al., 2014).

Elderly Mexican-origin individuals are less likely than non-Hispanic White elderly individuals to use formal long-term care services (Thomeer, Mudrazija, & Angel, 2015). Instead, Mexican-origin elderly individuals stay in their homes even after they become seriously impaired. In this article, we examine the living arrangements of Mexican-origin individuals aged 85 and older in the Southwestern United States in 2010. We develop a typology of living arrangements based on elderly parents' ability to live relatively independently and create a conceptual framework with which to structure our discussion of the potential demographic correlates of both aging parents and their adult child caregivers for different living arrangements.

Conceptual Framework

Our analysis is motivated by a conceptual model of living arrangements for the elderly parents being a result of demographic factors at both parental and child levels, shared

economic interests, and elderly parents' fitness for independence. This model is distinct from previous research in that we are not only interested in the availability of children but also the characteristics of coresiding children (Bishop, 1986). Due to the low rate of childlessness in Mexican-origin households over the age of 85, we structure our article around the assumption that Mexican-origin elderly individuals in the United States are likely making decisions about living arrangements within the context of a multigenerational family. We define living arrangements in terms of parental independence and household extension through household size, marital status, and householder status.

Given the potentially complex interplay among health, living arrangements, and caregiving, it is important to examine how health and dependency among very old individuals are associated with living arrangements and headship status. The complexity of the situation that families face in determining how to deal with a seriously impaired parent is made clear by a simple consideration of who is involved in that decision, the assets a family can draw upon, and the costs and benefits for both adult children and older parents.

Defining Living Arrangements

The household is a central organizing unit that creates social ties and links individuals to each other (Hughes & Waite, 2002). The structure of social ties within households is important. For example, children moving in with their elderly parents and elderly parents moving in with their children can have the same household roster but the type of household extension each situation represents is quite different. The example of a child moving in with their parents can take on a variety of meanings, which we attempt to parse out by examining the role of household head. The role of the head of household typically implies a greater degree of access and control of the family unit's economic resources (Wilmoth, 2001).

Household headship reflects a form of control over important assets that can influence a family's decision concerning what to do with an infirm aging parent. The concept of "head of household" or "householder" is clearly related to ownership but is not fully synonymous. In most surveys, the question of who is the head of household refers to the formal owner or the person who pays the rent (Pynoos & Golant, 1996; U.S. Census Bureau, 2015). We define living arrangements in terms of independence and household extension; individuals who live alone or with their partner only are considered independent, while individuals who live in extended households are distinguished by their headship status with elderly parents who maintain headship being more independent than those who live in homes where they are not the head of household.

Correlates of Living Arrangements Among Elderly Mexican-Origin Hispanics

Parent-Level Demographics

The demographic characteristics of older persons differentiate living arrangements. In general, previous research indicates that the likelihood that an elderly person lives with others, usually a child, as a nonhead of household increases when the person is older, female, foreign born, and of low socioeconomic status (Wilmoth, 1998). For Mexican

American elderly individuals, there is the additional consideration of nativity, as rates of cohabitation with children are higher for the foreign born (J. L. Angel, Angel, McClellan, & Markides, 1996). The presence of a partner modifies the effects of covariates of living arrangements. This concern may be even more important for the Mexican American population because elderly Mexican American women are more likely to live longer than other racial/ethnic groups and are consequently at high risk of dependency on others (Liang, Brown, Krause, Ofstedal, & Bennett, 2005; Rote, Angel, & Markides, 2015).

Child-Level Demographics

There is relatively less known about the demographic characteristics of adult child caregivers who coreside with their parents (Rote et al., 2015). A common assumption is that children who live with elderly parents have moved into the parents' home to provide care and assistance but research has shown that these coresidential relationships primarily benefit the adult children (Wiemers, Slanchev, McGarry, & Hotz, 2017). One motivation for household extension is the reliance of adult children, especially single mothers, on elderly parents to provide child care (Augustine & Raley, 2013). Likewise, adult children's marital status is an important predictor of living arrangements, with parents of married children being more likely to coreside (Aquilino, 1990). Less is known about the specifics of coresidential, adult, child caregiver, demographics for Mexican Americans, but research on care-giving, in general, suggests that they are mostly female as to conform to cultural expectation (Cucciare, Gray, Azar, Jimenez, & Gallagher-Thompson, 2010; Mendez-Luck & Anthony, 2015)

Familial Finances as a Determinant of Living Arrangements

Evidence suggests that, in many cases, adult children in the United States are returning to their parents' home not primarily to care for aged parents, but because of their own financial constraints (see, for example, Tomassini, Glaser, Wolf, van Groenou, & Grundy, 2004). Most of these adult children have difficulty finding adequate employment and cannot afford to establish their own household (Glick & Van Hook, 2002). In 2012, 36% of U.S. Hispanics aged 18 to 31 years old lived with their parents as the nonhead of household (Fry, 2012). Although most children who live with a parent do so for relatively short periods (Glick & Van Hook, 2002), in certain cases, the adult children never leave the parental home and remain well into their later adult years.

Our research is partially motivated by the fact that homeownership among the Mexican-origin population is quite high. An estimated 49% of Mexican-origin families own their homes (Gonzalez-Barrera & Lopez, 2013). For comparison, the 50 plus sample in the Health and Retirement Study (HRS) from 2000 to 2010 estimate that 82% of Non-Hispanic Whites, 67% of Non-Hispanic Blacks, and 64% of Hispanics own their homes (Thomeer et al., 2015). In addition to practical functions of serving as the spatial and geographic locus of family identity, a house is also an asset which, for most homeowners, represents a major fraction of a family's total wealth, and probably the largest portion of what they can leave to future generations (Venti & Wise, 2004). Given this monetary value, the person who owns the home is usually, but not always, recognized by other household occupants as the head. The ownership of a home, then, raises issues related to its practical and subjective meaning

for various family members, as well as issues of control over an important asset. If an older parent must be placed in a nursing home a family with limited resources would have no choice but to sell the elderly parent's home or spend down to Medicaid eligibility. This may serve as a strong motivation for the family to do whatever they need to in order to keep ownership of the property.

The distinction between ownership and headship, and their overlap, is of major theoretical importance. Ownership is clear; headship, on the contrary, is a social construction that is more complex. It may or may not imply some elevated level of authority and power, and it defines the relationship among household members. In this way, homeownership and head of household are related but differ in meaningful ways; homeownership refers to assets, while headship is a role within a home. Theoretically, parents who live in homes where their children are the heads of households must have undergone a change in headship status at some point. Although we do not examine changes in headship status explicitly, the transfer of headship status to children is implicit in our examination of homes where adult child caregivers are the head of household. One can be the owner, as in the case of an elderly parent who has completely paid for their residence, but not the head, as in the situation where an adult child assumes full responsibility for a parent in the parent's home. In this scenario, elderly individuals are able to "age in place" while being a homeowner, yet they cede the responsibilities that traditionally fall to the "head of household" to a child or other family member.

What is certain, as previously mentioned, is that nursing home use among Mexican-origin Hispanics is lower than that of non-Hispanic Whites (Thomeer et al., 2015). Thomeer used the HRS and did not look at Mexican-origin. However, these statistics on Hispanics largely reflect the Mexican-origin experience. One likely explanation, in addition to a potentially culturally based rejection of such living arrangements, is cost. To pay for nursing home care, families with few other liquid assets have little choice but to sell the parents' home. Moreover, to qualify for Medicaid-financed nursing home care, an elderly person must "spend down" to near poverty, leaving nothing to heirs. The reality of being "house rich but income poor" presents Mexican-origin families with potentially serious decisions concerning the disposition of parents' property (Thomeer et al., 2015). We are particularly interested in the role of homeownership, given that housing assets may have substantial impacts on the flow of private transfers between generations (Kohli, Künemund, & Zähle, 2005). Homeownership, thus, may serve as the anchor to intergenerational support systems in later life as living arrangements are adjusted so that the single largest asset owned, the house, stays in the family. In the later years of life, where and with whom one lives greatly influences one's quality of life.

Fitness for Independence

Even when they become seriously disabled, non-Hispanic elders are far more likely than Hispanics to continue living alone (Himes, Hogan, & Eggebeen, 1996; Hughes & Waite, 2002; Sergeant, Ekerdt, & Chapin, 2010). Even fairly frail older individuals remain in the community and enter a nursing home only as a last resort. Research on aging has been clear,

poor health in its many definitions are related a greater propensity to coreside with children (Burr & Mutchler, 1992; Soldo, Wolf, & Agree, 1990; Wolf, Freedman, & Soldo, 1997).

Research shows that health conditions vary by living arrangements, with married couples who live with children enjoying the best health (Hughes & Waite, 2002). The rates of disability among the oldest-old also suggest greater dependence and a high need for caregiving. Furthermore, previous research on transitions in living arrangements for elderly Mexican Americans show that disability and cognitive impairment were strong predictors of transition into extended households (Prickett & Angel, 2015).

Hypotheses

Although it might seem reasonable to hypothesize that family member's decisions concerning the living arrangements of elderly parents are motivated primarily by filial piety, norms concerning responsibility, or simple affection, other more material motivations are clearly possible. It might also seem reasonable to focus solely on the need of the elderly parent, but there are other potential beneficiaries of different living arrangements. The following analysis examines the older parent's health, the financial situations of both the elderly parent and his or her caregiver, and household headship. In our analysis, we provide indirect tests of the following hypotheses.

Hypothesis 1: Fitness for independence will determine the level of independence an elderly parent will experience via their living arrangement. Older parents in poor health will be forced to live with others and be less likely to report that they are the household head. In this situation, poor health and extreme old age force the elderly person into dependency and reduces his or her capacity to occupy the role of household head.

Hypothesis 2: Although the infirm older individual may require care, financial need among adult child caregivers will increase the probability that they will coreside with their aging parent. In this case, both the elderly individual and their adult child caregiver benefit from the living arrangement.

In sum, we examine different living arrangements among the oldest-old and identify the demographic, socioeconomic, and health factors associated with different living arrangements, focusing particularly on the parent's headship status. Our objective is to develop insights into the constraints on living arrangement options among rather poor families, many of whom own a home, and their actions as agents who optimize those options to address the care needs of the elderly parent. As mentioned earlier, we do not have direct information on motivations for household extension. Rather, we assume that extension reflects the needs of either the parent, the adult child, or both. We will extend previous research on elderly Mexican American living arrangements by thoroughly examining household headship status and the characteristics adult child caregivers.

Method

Data

We use data from the seventh wave of the Hispanic Established Populations for Epidemiologic Study of the Elderly (H-EPESE) study (for more information on research design, see Markides et al., 1999). The H-EPESE began in 1993/1994 with a sample of 3,050 respondents who were representative of the Mexican-origin over age 65 population of the Southwestern States (Texas, New Mexico, Colorado, Arizona, and California). The sample is reinter-viewed roughly every two years and there was a refreshment sample of 902 respondents at Wave 5 (2010/2011). The seventh wave included an additional questionnaire on primary caregivers ($n = 925$). Due to our focus on the relationship between parents and children in determining living arrangements, we limit our sample to respondents who name a child or a child's spouse as their primary caregiver, leaving us with 603 child-parent pairs.

Measures

Living arrangements.—The dependent variable in this analysis is the living arrangement of the elderly parent. Similar to previous research (Wilmoth, 2001), we analyze living arrangements using three types of households based on size and headship status: (a) living alone or with spouse only, (b) living with others as the head of household, and (c) living with others not as the head of household. Living arrangements are determined by examining the household size reported by the elderly parents, the marital status of the parents, and the proximity of their child caregiver. Individuals who reported living in a household size of one and being widowed/divorced/single and their child caregiver did not report living with them were coded as living alone. Individuals who reported living in a household size of two and being married and their child caregiver did not report living with them were coded as living with their spouse only and combined into the alone category. The spouse only and alone households (henceforth Alone/Spouse Only) are combined due to similarity in level of independence, or lack of need of support from family caregivers ($N = 235$). Elderly parents who reported living in household size of two or greater and who were not married, or size of three or greater and were married and report being the head of their household or the spouse of the head of household, are categorized as living in households with others as head of households (henceforth HOH Others). The HOH Others households contain elderly individuals who are living with their children and are considered to be the person in charge of the home ($N = 227$). Elderly parents who report living in household size of two or greater and are not married, or size of three or greater and are married and report not being the head of the household they reside in, are categorized as living in households with others as nonheads of households (henceforth Non-HOH). The Non-HOH households contain elderly individuals who are not considered the head of the household they live in, either because they have moved in with their children or their children have moved in with them and are in charge of the household ($N = 141$).

Although previous work has used the Census definition of householder to identify the head of household, we rely on elderly respondent self-reports, which may reflect a more socially defined headship status. Elderly parents are asked, “what is your relationship to the head of the household.” Those who named a spouse of themselves as heads are considered heads of

households, those who name someone other than themselves or spouse are considered nonheads. We expect that elderly parents respond to the question of headship by evaluating relationships within their homes, especially with regard to who is “in charge.”

Demographic characteristics.—Demographic characteristics considered include elderly parent’s age, gender (female = 1), nativity (U.S. Born = 1), years of education, and number of children. Child caregivers characteristics included are age, gender (female = 1), and marital status (married = 1).

Socioeconomic characteristics.—Elderly parent’s socioeconomic status is measured by trouble paying bills, and homeownership. Trouble paying bills is a scale measure ranging from *none* (1) to *a lot* (4). Homeownership is dummy coded 0 for nonowners and 1 for owners. Child caregiver’s income in US dollars is measured in \$10,000 categories, top coded at \$80,000 or more.

Fitness for independence.—Elderly parent cognitive functioning is measured using a mini-mental state examination (MMSE) score, ranging from 0 to 30 with higher score signifying better cognitive functioning. Activity of Daily Living (ADL) disability is dummy coded as 1 if elderly parents reported having trouble with walking across a room, feeding themselves, bathing, dressing, grooming, getting out of bed, or toileting and 0 otherwise.

Analytical Strategy

The analysis begins with a description of the characteristics of different living arrangements. To examine differences in living arrangements, we use multinomial logistic regression with Non-HOH as our base category, allowing us to examine the relative risk ratio (RRR) for Alone/Spouse Only and HOH Others compared with Non-HOH. Because our research hypotheses are built upon assumptions of differences in frailty and financial resources, we examine the four domains of our conceptual model: parental demographic characteristics, child demographic characteristics, shared financial constraints, and fitness for independence. We estimate four models, additively controlling for (a) elderly parent demographic characteristics, (b) child care-giver characteristics, (c) financial constraints, and (d) disability and cognitive status. The presence of a married partner may affect how different domains are related to living arrangement. Our focus on independence and families where primary caregivers are determined to be someone other than a spouse leads us to assume that partners are not doing the bulk of caregiving in our sample. Nonetheless, we examine the differences by marital status for our final model by stratifying by marital status. Missing data were handled with STATA’s multiple imputation suite; there were few missing values except for a small percentage of missing child caregiver income (<10%).

Results

Descriptive Results

Table 1 describes the characteristics of living arrangements. The most common living arrangement is living alone or spouse only, representing 39% of the elderly in the sample (Alone/Spouse Only). The remaining respondents are living with others in households in

which they are the head (HOH Others) (38%), or in households with others in which they do not report being the head (Non-HOH) (23%). All demographic, financial, and health characteristics are statistically significantly different by living arrangement except for elderly parent's and child caregiver's ages and caregiver gender.

Elderly parent's demographic characteristics show that women are over-represented in Non-HOH households ($p < .01$). U.S.-Born elderly individuals are least likely to live in Non-HOH households and more likely to live in more independent homes ($p < .01$). The Alone/Spouse Only households contain the most educated elderly parents (5.7 years), while the Non-HOH households contain the least educated (3.9 years). Child caregiver's marital status varies among living arrangements; HOH Others households have the smallest proportion of married child caregivers (31%) while Alone/Spouse Only households have the largest (70%) ($p < .001$). The demographic differences between living arrangements show how gender, nativity, family size, and marital status are all considerations for headship status and living arrangements.

Socioeconomic characteristics and elderly parent's health also show significant variation by living arrangements. Child caregiver's income is lowest for HOH Others households and highest for Non-HOH households ($p < .01$). Elderly parents in HOH Others households report the most trouble with bills. Homeownership varies considerably among living arrangements ($p < .001$). Elderly parents in Alone/Spouse Only households (68%) and HOH Others households (72%) own homes. Somewhat surprisingly, a considerable portion of the elderly parents in Non-HOH households (32%) also own homes. Non-HOH households (70%) elderly experience the most ADL disability ($p < .001$). MMSE scores are higher for elderly parents in the Alone/Spouse Only households (21.6) and the HOH households (21.3) than in the Non-HOH households (16.4) ($p < .001$). Given these complex patterns of economic and disability characteristics, we next examine the determinants of living arrangements in a multinomial logistic model.

Multinomial Logistic Regression Results

The results on Table 2 show the Relative Risk Ratios (RRRs) of an elderly parent being in either an Alone/Spouse Only household or a HOH Others household compared with a Non-HOH household. Different living arrangements are significantly associated with elderly parents' demographic characteristics. The elderly parent's demographics model is reported in Model 1 of Table 2. There is no statistically significant difference in the probability of being in more independent households (Alone/Spouse Only or HOH Others) compared with living in the least independent household (Non-HOH others) by elderly parents' age. Being female is significantly associated with a decreased probability of being in independent households (Alone/Spouse RRR = 0.608, $p < .05$). U.S.-Born elderly parents are least likely to live in Non-HOH households, and most likely to live in HOH Others households (RRR = 1.799, $p < .05$). Parents' education is associated with an increased likelihood of living alone (Alone/Spouse RRR = 1.097, $p < .01$). Elderly parents number of surviving children differentiates between HOH Others and Non-HOH households, with additional children increasing the odds of living in a HOH Others home (RRR = 1.103 $p < .05$).

In Model 2, we include the child caregiver's demographic characteristics, and the associations between elderly parents' demographic characteristics remain consistent. The only significant child caregiver characteristic associated with living arrangement in Model 2 is marital status. Elderly parents are more likely to live in Alone/Spouse Only households than to live in Non-HOH households ($RRR = 1.875, p < .01$) when child caregivers are married and less than half as likely to live in HOH Others households ($RRR = 0.368, p < .001$). We interpret these results as signifying caregiver independence via establishing their own household.

Model 3 includes finance constraints as covariates. All finance constraints are significantly associated with living arrangements. Differences in living arrangement by child's income are shown in Figure 1. At the lowest child care-giver income, parents are most likely to live in HOH Others households and least likely to live in Non-HOH households; however, when child caregiver income increases, the probability of living in HOH Others households versus Non-HOH households converge. Elderly parents' trouble paying bills operates in a similar manner, as illustrated by Figure 2. Parents who report having the most trouble paying bills are most likely to live in HOH Others households and least likely to live in Non-HOH households. Taken together, these two figures provide support for our second research hypothesis that the financial need of adult children increases the probability of coresidence with parents. Parental homeownership is also associated with living arrangements. Figure 3 shows the differences in probability of living in different arrangements by homeownership. Among nonhomeowners, Non-HOH households are the most common, while homeowners are roughly 8 times more likely to reside in either Alone/Spouse Only or HOH Others households than as nonheads. Interestingly, some individuals who own their homes are in Non-HOH households, suggesting that homeownership does not fully determine headship status.

The final model (Model 4) includes health constraints in addition to other covariates. Given the high level of disability and cognitive impairment in our sample, it is not surprising that both physical disability and cognitive limitations are associated with living arrangements. Both physical and cognitive limitations are associated with lower odds of living Alone/Spouse Only or HOH Others households. Figure 4 shows that there is a decreased probability of living in Alone/Spouse Only or in HOH Others households for individuals with lower MMSE score. Conversely, individuals with higher MMSE scores are less likely to live in Non-HOH homes. At the lowest MMSE score, roughly 50% of the population live in Non-HOH households, while 28% live in Alone/Spouse Only Homes and the remaining 22% live in HOH Others homes. These results provide evidence for our first research hypothesis, that as parents become more incapacitated, they are more likely to cede headship status, even net of homeownership.

Table 2 shows that living arrangement decisions are influenced by a confluence of demographic, socioeconomic, and health considerations. Elderly parents' demographic characteristics differentiate living arrangements but lose statistical significance when controlling for finance and health considerations. Child caregiver's marital status is the most important child caregiver demographic characteristic, maintaining statistical significance in the full model. Families where child caregivers are married are associated with elderly

parents being more likely to live in Alone/Spouse Only households or Non-HOH households than in HOH Others households. Finance and health constraints maintain significance in the full model, while only marital status of children maintains significance from the demographic characteristics.

Additional analysis of our final model stratified by marital status revealed that correlates of living arrangement vary by marital status. Table 3 presents results from our full model stratified by married and nonmarried elderly parents. The results are not directly comparable across models but describe -how the presence of a living spouse affects the covariates of living arrangements. Notably, the effect of child caregiver marital status is different by parental marital status. In the full model (Table 2, Model 5), child marital status is associated with increased odds of being Alone/Spouse Only and decreased odds of HOH Others. In Table 3, child marital status is associated with decreased odds of being in HOH Others homes for both married and nonmarried elders as well as decreased odds of being in Alone/Spouse for married elderly while increasing the probability of nonmarried elders to live alone. These findings provide evidence that even when individuals name a child as their primary caregiver, a nontrivial amount of care is shared by spouses when available. Comparing stratified models does not allow for direct comparison of coefficients but the general direction and significance of correlations gives some sense of how familial decisions about parental living arrangements vary when a spouse is present.

Discussion

In this analysis, we examined living arrangements among Mexican-origin elderly parents and described how different arrangements are affected by the elderly parents' headship status, economic circumstances, and health. We examined these relationships using data uniquely qualified for examining the health of very old Mexican Americans. The H-EPESE data also include information on caregiver characteristics. The analysis was motivated by the observation that even among the oldest-old, Mexican-origin individuals do not enter nursing homes. Rather, they remain in the community, very often in their own homes. Although we have no direct measures of motivations for coresidence, we examine factors that are associated with dependency and that reflect economic difficulties, both for the elderly parent and for the adult child coresident.

We began by comparing the characteristics of elderly parents who live with someone other than their spouse, either as a head or nonhead of household, with those who live alone. The two groups differ significantly in ways that we might expect. Our multivariate analyses reveal that those elderly parents who live alone have better physical and cognitive health. Better health and cognitive functioning reflect greater independence compared with those who live with children. In addition to reporting better health, those who live alone tend to be younger, are more often male, have a married child who, presumably, is able to provide assistance when needed, and own their homes. Elderly parents who live alone or with their spouse only are more financially secure than those who live with children.

In general, our results extend previous literature on living arrangements: We find that older parents are less likely to live alone, women are more likely to be caregivers, families make

decisions as a shared economic unit, and health determines people's ability to live independently (Aquilino, 1990; Cucciare et al., 2010; Liang et al., 2005; Mendez-Luck & Anthony, 2015; Wilmoth, 1998, 2001). We advance research by elucidating two important unique considerations for Mexican American families: adult child caregivers and homeownership. The family caregiver research on Mexican American families have shown that caregivers are more likely to be women (Cucciare et al., 2010; Mendez-Luck & Anthony, 2015), and we extend this line of research by examining the characteristics of caregivers that determine types of living arrangements. Primary caregivers largely fall into two categories in our sample, those who are highly established via marriage and high income, and those who less established through low income and being single. Highly established children appear to care for their parents by opening their homes to their parents or helping their parents to maintain independence, while less established children appear to care for their parents by taking an active role in living with them.

Given the realities of aging and increasing frailty, even those aging parents who are independent are unlikely to remain so long-term. Eventually, some other living arrangement will be necessary, either extended family living arrangements or formal long-term care. It will be interesting to see how Mexican-origin families in which the children are financially independent will respond to their parent's dependence. Although traditionally the family has assumed the role of primary caregiver for aging parents, the new reality may be an increasing use of nursing homes, even if such placement does not conform to traditional expectations. Previous research on H-EPESE found only 3.9% of the sample entered nursing homes between 1993 and 2005 (Espino, Angel, Wood, Finely, & Ye, 2013) while the U.S. Health and Retirement Study found about 9% of the Hispanic sample from 1998 to 2010 entered into a nursing home (Thomeer et al., 2015). If Mexican American nursing home use approaches rates of non-Hispanic Whites (16% in the HRS), then the estimates from the H-EPESE are considerably lower than what can be expected in the future.

Previous research suggests that among Mexican-origin elderly individuals maintaining independence depends on having an adequate retirement income. Although our findings corroborate this, they also suggest that independence is related to additional factors, including good health and homeownership (Zsembik, 1993). Elderly parents who are able to adapt their home to their declining health may be able to maintain independence. Although evidence shows home adaptation is effective in reducing disability (Szanton et al., 2011), owning and maintaining a home requires substantial resources. Due to their lower mortality rates, elderly Mexican-origin individuals who are independent and living alone are at serious risk of outliving financial and health resources.

Homeownership is the most significant financial constraint associated with living alone in our model. The probability of living alone did not vary by child's income or a parent's trouble paying bills net of other covariates, suggesting that living alone is more strongly associated with one's physical capability to do so rather than financial considerations. In contrast, the head-ship status of the parent is associated both with a child caregiver's income and an elderly parent's financial stress for extended households. Elderly parents who were nonheads reported less financial strain than those who maintained headship. Elderly parents in households in which they maintain headship are characterized by high financial strain,

high rates of homeowner-ship, and low child caregiver income. We take this arrangement to mean that household extension is mutually beneficial for both the adult child caregiver and elderly parent. This mutually beneficial relationship makes possible the provision of appropriate care to moderately physically and cognitively impaired elderly at a cost a family can afford. Although previous research suggests that elderly Hispanic immigrants are likely to live in homes where their children are the primary income earners, our results show a high prevalence of financial dependence among adult child caregivers, regardless of their nativity status (Glick & Van Hook, 2002). The cost of aging is minimized by a sharing of resources between generations. Household extension, therefore, makes it possible for an aging parent to grow old in the community despite considerable cognitive frailty and serious health care needs. Furthermore, the particularly robust results of the association between living arrangements and child caregiver's marital status point to how more established child caregivers assess living arrangements differently than less established caregivers. It makes sense that children who are married would be less likely to move in with their parents, instead opting to have parents live alone or in homes in which they or their spouse is the head of household.

Finally, our findings reveal substantial economic and health vulnerabilities among very old parents who live with children, but not as the head of household. In late old age, elderly parents in households in which they are not the head are highly dependent and experience high levels of ADL disability and cognitive impairment. Wealthier more established adult child caregivers make it possible for their elderly parents to coreside. Thus, moving in with one's children may serve as a functional alternative to a nursing home for the Mexican-origin oldest-old. Previous research suggests that the unequal distribution of resources within intergenerational households is associated with stability in living arrangements, specifically when parents or children maintain disproportionate shares (Glick & Van Hook, 2011). Our typology illustrates that later life living arrangements are marked by unequal distributions of resources. Parents have greater resources when they are the head of households or children have more resources when parents are nonheads. Instability and uncertainty are likely for the oldest-old residing in nonheaded households. As a result, nursing home transitions may be inevitable in the future in the absence of additional informal supports (Wilmoth, 1998).

In conclusion, while the results we present contribute to our understanding of how health and economic need motivates household formation, there is still considerable work to be done to understand the nuances of familial caregiving for Mexican-origin elderly individuals and the extent to which family care in the community functions as an alternative to formal long-term care. Future research should address the impact of family living arrangements on Mexican-origin child caregivers since the cross-sectional data hint at a major potential dependency burden for caregivers in extended households. Longitudinal studies will provide much-needed information on the ways in which families mobilize support in the aging Hispanic population and the potential toll it may take on the caregiver. Given the rapid social and economic changes that are affecting all families, including Mexican American families, a major question that future research must address is whether the family can continue to serve in the capacity of caregiver to infirm elderly parents.

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Figure 1. Caregiver income—Predicted probability of living arrangement. *Note.* HOH = Head of Household.

Figure 2. Parents' Trouble Paying Bills—Predicted probability of living arrangement. *Note.* HOH = Head of Household.

Figure 3. Homeownership—Predicted probability of living arrangement. *Note.* HOH = Head of Household.

Figure 4. MMSE—Predicted probability of living arrangement. *Note.* MMSE = Mini-Mental Status Examination; HOH = Head of Household.

Table 1.

Living Arrangement Characteristics.

	Alone/spouse	Head of household others	Nonhead of household others	Total
Elderly parent characteristics				
Age	85.63 (3.9)	86.00 (4.25)	86.66 (4.75)	86.01 (4.24)
Female **	64%	66%	74%	67%
Nativity **	57%	58%	44%	54%
Education (years) ***	5.67 (4.34)	4.74 (3.98)	3.89 (3.38)	4.90 (4.05)
Marital status ***	40%	30%	12%	30%
Number of adult children ***	5.15 (2.78)	5.97 (2.9)	5.34 (2.83)	5.50 (2.85)
Trouble with paying bills *** (1 = none at all to 4 = a great deal)	2.17 (0.98)	2.40 (1.01)	2.16 (.97)	2.26 (1.00)
Home owner ***	68%	72%	32%	61%
Any ADL disability ***	47%	47%	70%	52%
Mini-mental status exam ***	21.62 (7.32)	21.25 (6.4)	16.36 (8.61)	20.25 (7.62)
Child caregiver characteristics				
Age	55.08 (8.36)	54.27 (8.42)	55.73 (8.57)	54.93 (8.44)
Female	74%	64%	71%	69%
Married ***	70%	31%	55%	52%
Income (in 10,000s) ***	5.18 (2.18)	4.32 (2.03)	5.21 (1.91)	4.86 (2.1)
<i>n</i>	235	227	141	603

Note. Significant differences between living arrangements (chi-square for categorical variables, and ANOVA for continuous variables).

*
 $p < .05$.

**
 $p < .01$.

 $p < .001$.

Table 2.

Multinomial Logistic Regression Living Arrangements and Covariates.

	(1)		(2)		(3)		(4)	
	Respondent demographics		Caregiver demographics		Finances		Disability and cognitive impairment	
	Alone/spouse	HOH others	Alone/spouse	HOH others	Alone/spouse	HOH others	Alone/spouse	HOH others
Elderly parent age	0.958 (0.02)	0.978 (0.02)	0.957 (0.03)	0.978 (0.03)	0.954 (0.03)	0.981 (0.03)	0.991 (0.03)	1.030 (0.03)
Elderly parent female	0.608* (0.15)	0.721 (0.17)	0.582* (0.15)	0.696 (0.18)	0.631 (0.17)	0.747 (0.21)	0.695 (0.19)	0.852 (0.25)
Elderly parent nativity	1.355 (0.31)	1.799* (0.41)	1.317 (0.31)	1.723* (0.41)	1.119 (0.28)	1.417 (0.36)	1.184 (0.30)	1.544 (0.41)
Elderly parent education (years)	1.097** (0.03)	1.049 (0.03)	1.107** (0.03)	1.049 (0.03)	1.112** (0.04)	1.082* (0.04)	1.060 (0.04)	1.021 (0.04)
Elderly parent number of adult children	1.000 (0.04)	1.103* (0.04)	1.013 (0.04)	1.098* (0.05)	1.009 (0.04)	1.087 (0.05)	1.028 (0.05)	1.104* (0.05)
Child caregiver age			1.006 (0.02)	0.997 (0.02)	1.012 (0.02)	1.004 (0.02)	1.012 (0.02)	1.004 (0.02)
Child caregiver female			1.260 (0.31)	0.710 (0.17)	1.354 (0.35)	0.796 (0.21)	1.259 (0.34)	0.748 (0.20)
Child caregiver married			1.875*** (0.43)	0.368*** (0.08)	1.973** (0.48)	0.410*** (0.10)	2.015** (0.50)	0.421*** (0.11)
Child caregiver income (in 10,000s)					0.906 (0.06)	0.828** (0.05)	0.883 (0.06)	0.801*** (0.05)
Elderly parent trouble with bills					1.224 (0.16)	1.485** (0.20)	1.247 (0.17)	1.526** (0.21)
Elderly parent homeowner					3.981*** (0.97)	5.270*** (1.34)	4.210*** (1.07)	5.532*** (1.47)
Elderly parent any ADL							0.588* (0.16)	0.520* (0.14)
Elderly parent MMSE							1.070*** (0.02)	1.086*** (0.02)
Constant	51.21 (118.80)	4.642 (10.60)	23.05 (55.61)	11.72 (27.70)	10.40 (27.27)	2.307 (6.06)	0.173 (0.49)	0.0114 (0.03)
Observations	603		603		603			603
Log likelihood	-632.2		-590.1		-553.3			-532.7
Pseudo R^2	.03		.09		.15			.18

Note. Reference: Living with Others Not HOH Exponentiated coefficients; Standard errors in parentheses. HOH = Head of Household; MMSE = Mini-Mental Status Examination.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3.

Multinomial Logistic Regression: Living Arrangement by Marital Status.

	(1)		(2)	
	Married		Nonmarried	
	Spouse only	HOH Others	Alone/spouse	HOH Others
Elderly parent age	1.117 (0.12)	1.172 (0.13)	0.990 (0.04)	1.032 (0.04)
Elderly parent female	1.657 (1.18)	1.620 (1.19)	0.889 (0.31)	1.119 (0.40)
Elderly parent nativity	0.338 (0.27)	0.614 (0.50)	1.319 (0.38)	1.643 (0.49)
Elderly parent number of adult children	0.742* (0.10)	0.867 (0.12)	1.065 (0.06)	1.097 (0.06)
Elderly parent education (years)	1.068 (0.12)	1.079 (0.12)	1.054 (0.04)	0.997 (0.04)
Child caregiver age	0.944 (0.04)	0.970 (0.04)	1.047* (0.02)	1.004 (0.02)
Child caregiver female	3.627 (2.55)	1.562 (1.14)	1.114 (0.35)	0.724 (0.22)
Child caregiver married	0.806 (0.65)	0.126** (0.10)	2.279** (0.65)	0.546* (0.16)
Child caregiver income (in 10,000s)	1.048 (0.18)	0.954 (0.17)	0.855* (0.06)	0.769*** (0.06)
Elderly parent trouble with bills	1.657 (0.61)	1.894 (0.71)	1.128 (0.18)	1.473* (0.23)
Elderly parent homeowner	6.574* (5.16)	4.537 (3.76)	3.155*** (0.90)	5.531*** (1.63)
Elderly parent any ADL	0.243 (0.19)	0.295 (0.24)	0.682 (0.21)	0.530* (0.16)
Elderly parent MMSE	1.072 (0.04)	1.092* (0.05)	1.072*** (0.02)	1.089*** (0.02)
Constant	0.00214 (0.02)	0.00000703 (0.00)	0.0207 (0.07)	0.00835 (0.03)
Observations	178		425	
Log likelihood	-125.9		-380.5	
Pseudo R ²	.239		.181	

Note. Reference: Living with Others Not HOH Exponentiated coefficients; Standard errors in parentheses. HOH = Head of Household; MMSE = Mini-Mental Status Examination.

* $p < .05$.

** $p < .01$.

*** $p < .001$.