

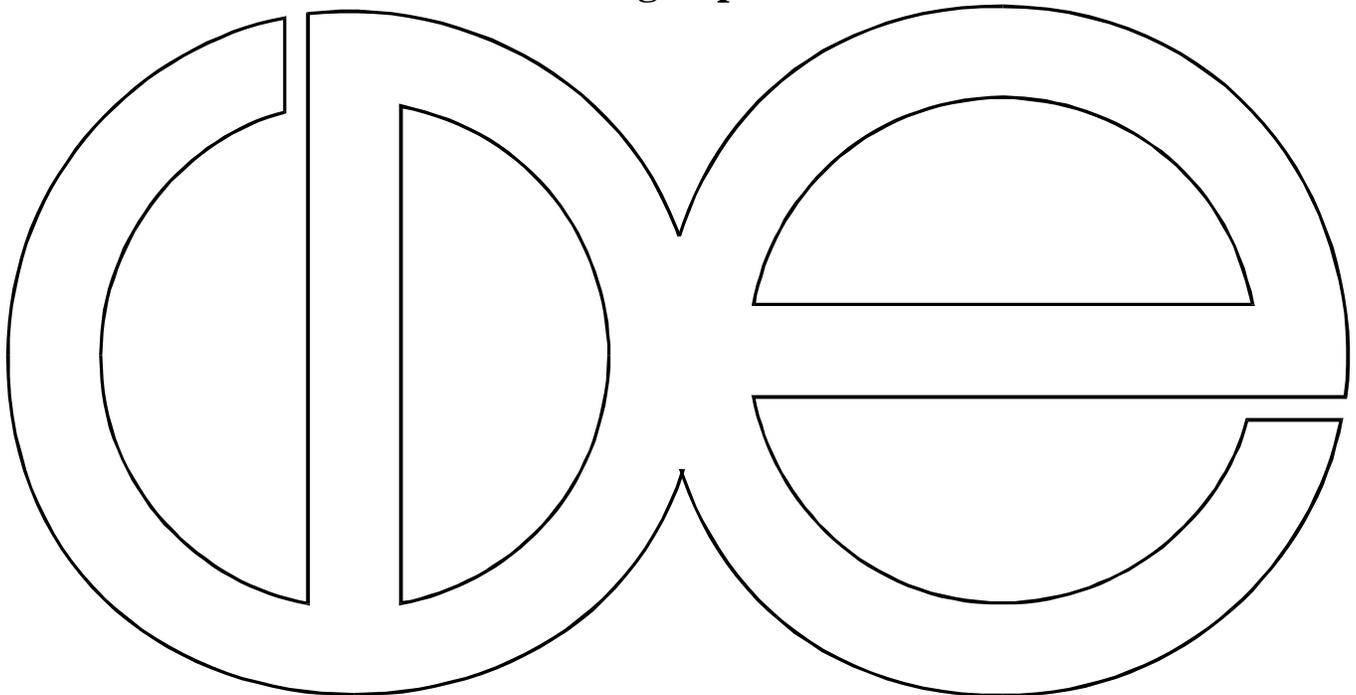
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**Kinship Ties and Solitary Living Among
Unmarried Elderly Women:
Evidence From Chile and Mexico**

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KINSHIP TIES AND SOLITARY LIVING AMONG UNMARRIED ELDERLY WOMEN:
EVIDENCE FROM CHILE AND MEXICO

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ABSTRACT

This paper uses census data from Chile and Mexico to describe the coresidential kinship ties of unmarried elderly (60+ years of age) women and to examine the importance of having children and socioeconomic characteristics on their likelihood of living alone. The countries were similar in that they were on a threshold between more traditional and modern age distributions, most (~85%) unmarried elderly women lived with others, daughters as well as sons were expected to assist elderly parents, and almost a fifth of those women had no surviving children. Thus unmarried elderly women in either country did not necessarily live alone if they were childless (in fact most did not), nor did they necessarily live with others if they had surviving children.

One difference between countries was that a much larger proportion of unmarried elderly women in Chile compared with in Mexico headed their own households, and a lower proportion of those households were simple or nuclear. Also, the number of surviving children was negatively related to the likelihood of living alone in Chile but not in Mexico. Oppositely, education was not important in Chile but was in Mexico, better educated women being slightly more likely to live alone there. Perhaps as important, rural unmarried elderly women were slightly less likely to live alone in Chile but were slightly more likely to live alone in Mexico. Finally, a life course of never marriage and having no children, perhaps in order to care for aging parents, seems to have been more common in Mexico than in Chile.

Can valuable kinship ties be maintained while traditional relations of dominance or subservience be altered?

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Introduction

Kinship ties beyond the nuclear family are important. A nuclear family may be ideal to some, but there have always been people who did not fit into the idealized scheme of middle-aged parents and children because they or a relative experienced orphanhood, never-marriage, old age or some such situation. While some societies may simply abandon and/or institutionalize people outside a nuclear family who cannot care for themselves, most societies do not; their extended family cares for them, perhaps with some help from the community at large or the government. In fact, since oftentimes uncontrollable events leave people still living but unable to follow a preferred life course, extended family ties could be considered a type of insurance adhered to by everyone, including people who may never use that insurance. Our main interest here is in the family or kinship ties of elderly women that go beyond those with a spouse, to include ties with extended family such as married children, grandchildren, siblings, nieces, nephews, and/or cousins.

We focus on unmarried elderly women because they are in a particularly vulnerable position (e.g. Ozawa, 1989; Rubin, 1997). Even if they married at one time and stayed married for a long time, many women can expect to outlive their husbands by years while any children will have grown and formed nuclear families of their own. For unmarried elderly women, kin ties may mean the

difference between ending life alone or as part of a family. Traditionally, irrespective of social background, much of a woman's energy while young was devoted to maintaining a household rather than accumulating economic assets of her own or qualifying for a government pension that often treats nonemployed spouses poorly. Eventually of course frailty sets in, making it difficult to perform activities of daily living even for those with financial assets. The older unmarried woman is typically in an economically and eventually probably otherwise dependent position and will usually turn to kin for assistance. Both young and old expect it.

While people may agree that kin ties are important, the data necessary to outline elderly women's kinship network are often unavailable, especially for developing countries (Martin and Kinsella, 1994; also Wolf, 1994). Ideally, one might want information for both men and women on the demographic, geographic and socio-economic characteristics of kin who live away as well as in the same household as the elderly person, and on the contact they have with that elder. However, special surveys that could obtain such information have not been conducted in Latin America. Rather, the fairly recent cross-national survey of elderly people in Latin America appears to have gathered relevant information on kin ties which is even more limited than that available in most censuses (Pérez et al., n.d.), and surveys being conducted right now seem to focus primarily on health issues to the detriment again of trying to understand kin ties. Generally, censuses at least gather fertility information for adult females such as number of children ever born alive and number of surviving children in addition to information on the relation of each household member to some "head" ("householder" in a growing number of countries). While fertility and "relation" information in themselves can disclose much of interest, it is even better for mapping kin if there is also information on household composition. Information on composition is contained in brief form in the Mexican census of 1990 but for Chile we must go back to a

supplement to the 1982 census.

Limiting information to others in the same household is fatal if it is common for many elderly people to live alone or only with a spouse, as in the United States, but it is not fatal if they commonly live with other kin. In both Chile in 1982 and 1992 and in Mexico in 1990 most unmarried elderly women lived with others. Coresidence may actually be the most basic way kin can lend support in contexts in which there are, at best, poor public social security and/or health systems (but see Rendall and Speare, 1995). Indeed, "doubling up" or sharing accommodations may be a common way to cope with financial need (see Wallerstein and Smith, 1990, 1992; also Neupert, 1992; Schmink, 1984; Wong and Levine, 1992).¹ Thus information on a person's "relation to head" can disclose much about kinship even if 49 percent of Chile's 1992, and 37 percent of Mexico's 1990, unmarried elderly women headed households that contained other people and heads did not list a relationship to themselves. We can use the household-level information to find out a little about other people's relationship to her. We also use limited information on the household's composition in Chile in 1982 and Mexico in 1990 because some of the heads have dependent nuclear families that they care for, not the other way around. We can thus use information from Chile (1982 and 1992) and Mexico (1990) to describe and compare the situation in Chile and Mexico, to help show that extended family is important.

Some Pieces of Demographic Background

¹ Although it is common to think in terms of the older person needing care, coresidence can also be a way for other people to enhance their welfare as much or more than that of the elderly person (Speare and Avery, 1993). This may be especially the case in situations in which women are the household heads and/or actually bore children well into their 40s (and even 50s). Unfortunately, although household ownership could provide a clue as to the economic situation of the older person, and although the censuses provided information on home ownership, that ownership is treated as a household-level characteristic rather than an individual-level one, and cannot be attributed solely to the elderly person of the household.

The kinship arena of old people in Latin America is of particular interest now that Latin America's population is aging, partly as a consequence of the region's success in lowering its growth rate. Its "oldest old" population is gaining fastest, and while a majority of all elderly people are women, this is particularly true of those 80 years and over (Myers, 1992). According to fairly recent U.N. figures, the Latin American and Caribbean region had about 6.0 percent of its population 60 years and over in 1960, 7.2 percent in 1990, and is projected to have 12.4 and 22.1 percent 60 and over by 2020 and 2050 respectively (medium variant, U.N., 1995). (In contrast, figures for North America are 13.0, 16.6, 22.6 and 26.6.) The region's 80 years and over population comprised 11.1 percent of the elderly population (60 years and over) in 1960, 15.8 percent in 1990, and is projected to become 17.8 percent in 2020 and 24.0 percent by 2050 (medium variant; U.N., 1997). The sex ratio for the elderly 60+ in the region was 86 (males per 100 females) in 1960, 81 in 1990 and is projected to become 77 in 2020 and 76 in 2050; among the 80+ group, it was 74, 70 and is projected to be 62 and 61. Hauser (1976) might have termed the current situation "transitional," on the way to being "modern" because aging in Latin America in 1990 may have been "traditional" but promises to strain traditional mechanisms of coping in the future.

Since people are living longer, it might appear that mortality reduction rather than fertility reduction has been the main engine behind population aging. In fact, fertility reduction is the main demographic cause, but mortality reduction does increase the likelihood that a woman will end her life old and potentially alone. That is, although mortality decline leads to a greater chance of adulthood and childbearing, and to a longer average married life, a woman is also more likely to reach old age, and to outlive her husband (e.g. Lee and Palloni, 1992; Uhlenberg, 1980; see also Bongaarts, 1989). The demographic calculations can become quite complicated, but just consider the sex difference in life expectancy: The Latin American and

Caribbean region had a female life expectancy at birth of 58.9 in 1960-65, 69.6 in 1985-90 and a projected 76.3 in 2010-20 and 81.1 in 2040-50 while male life expectancy may be 55.1, 64.3, 71.1 and 75.6 respectively (U.N., 1995). One of the big mysteries is why females in general appear to outlive males, especially after mortality has declined below a certain level.

Mortality decline also results in a greater chance of survival for children born alive, a greater chance that parents will stay parents into old age. Under such circumstances, it is not as necessary to have many children to ensure that one will still be alive when the parent is old. Relevant figures are hard to find, but one way to illustrate the point is by viewing the difference between the period measures of gross and net reproduction. The gross measure ("rate") is the average number of females born to a woman while the net measure ("rate") takes into account mortality by being the average number of females born per woman who themselves survive to reproductive age. In 1960-65, the regional gross rate is estimated to have been 2.91 compared with a net rate of 2.35. By 1985-1990 this was 1.66 vs. 1.52. In the future, it is conjectured to be 1.10 vs. 1.05 in 2010-2020 and 1.02 vs. 1.00 in 2040-2050 (U.N., 1995). Chances are that by 2020 almost all babies born alive will remain alive into adulthood although elderly people at that time are likely to have experienced the mortality situation prevailing when they themselves were having children.

Latin America's Pension Situation

Latin America's pension systems are in a state of flux, in part because traditional "pay-as-you-go" schemes are no longer as popular as they once were and because of "structural adjustment" (Barrientos, 1997). Latin American pension schemes also typically suffered from poor coverage and tended to benefit **men** working in salaried occupations in the formal (usually urban) sector (Barrientos, 1995). It is difficult to generalize about all of Latin

America however, and Camacho (1992) finds it necessary to divide the countries into at least three groups according to when they started to develop social security schemes, using terms such as "pioneer" for the early ones.

Chile is often recognized as the initiator of newer "privatized" schemes because in 1981 it started compulsory, tax-free, individual retirement savings accounts, not that this has been done without voiced reservations (e.g. Montecinos, 1997; Hiscock and Hojman, 1997). Other countries have followed the basic scheme, at least in part (Mexico in 1992 and 1997). Both Chile's and Mexico's schemes are unitary although self-employed people do not have to participate. The minimum pension, which varies by country, is only 80 per cent of the minimum wage in Chile, and 100 per cent in Mexico (Barrientos, 1997: 345). The Chilean age for retirement is 65 for men and 60 for women while Mexico's is 65 for everyone (and 1250 weeks of contributions). Yet even the 60-year olds in 1990 were too late to "benefit" from the recent pension changes since those changes require at least 20 years of participation in Chile and roughly 25 years in Mexico. Old people in the early 1990s had to rely on the more traditional system but cognizance of an improved situation for future elderly will help us evaluate traditional and changing circumstances.

Why Chile and Mexico

Although we constantly lament the state of our knowledge about the family situation of elderly people in such developed countries as the United States, much less is known about the family of elderly people in developing countries, including those of Latin America such as Chile and Mexico. In their recent compendium on family support to the elderly in international perspective, Hashimoto et al. state (1992: 294, 303):

"Comparatively little is known about older people in the Third World. In many of these countries, the extended family generally continues to be the primary source of support" and "What is needed is comparable cross-

national data which can systematically assess the position of older people and their families."

That is, predominate family type is crucial for the social position of elderly people, but we simply do not know enough yet about family structure in Latin America for us to 'place' Mexico or Chile as to what that might be. In a global sense, the household position of elderly people in Latin America seems intermediate to that in Asia on the one hand and North America on the other (De Vos and Holden, 1988), similar to what may have been the case in the United States historically (see Dahlin, 1980; also Ruggles, 1996). For instance, marriage and coresidential independence seem very related, unmarried elders being much more likely to live in extended family households than married elders (De Vos, 1990; also Palloni and De Vos, n.d.).

Chile and Mexico share some important attributes: They are both in Latin America (though at opposite ends), they both had only recently modified pension schemes that left most elderly people needing to rely on kin for support in the early 1990s, they both had roughly the same proportion of unmarried elderly women living with others around 1990 (around 85%), they both had roughly the same proportion of unmarried elderly women without any surviving children (18-19%), they both had roughly the same marriage systems (a contract between a monogamous couple with or without parental consent),² they both had partible inheritance systems involving children of both sexes (on the books anyway), in both countries daughters as well as sons appear expected to help elderly parents, and both countries could be considered on a threshold between having a more traditional and a more modern way of coping with a dependent elderly population. I have adopted as a working stance for

²However divorce is still illegal in Chile and reported consensual union is somewhat more common in Mexico. Also, since there may be two very different marriage systems in Latin America with potential ramifications on the family situation of older people, this study would not be capturing that diversity.

both countries, based on previous work there, the 'nuclear hardship model' in which the family is basically nuclear but kin are there to help out if need be (De Vos, 1995; Laslett, 1977).

Yet to say there are important similarities between countries is not to obscure the fact that there is also significant variation within the region (see also CEPAL, 1992). It may be common to think of all Latin American societies as typically family-oriented, and most elderly people do live in extended family households there, but Palloni and De Vos (n.d.) found a substantial range in extended family living among the elderly population, from perhaps 45 percent in Brazil in 1980 to 65 percent in the Dominican Republic in 1981. That comparison did not include Mexico, and a similar comparison between Mexico and Chile cannot be made now either because I use 1992 data for Chile that do not include information on household **composition**. But existing analyses show us that the Mexican household is much more apt to be "simple" or "nuclear" than the Chilean one (e.g. Echarri Cánovas, 1995; López and Izazola, 1994; Muñoz et al., 1991) and that Mexico has a much lower elderly female headship rate than Chile. Surely these factors reflect important family differences but what those might be more generally seems unclear since a good comparison of the family systems in the two countries seems not yet to exist.

The countries could be considered quite different in ways other than their family systems too of course. For instance, they were comprised of very different pre-Columbian cultures, they were in different viceroyalties during Spanish colonization, and they have had very different post-independence experiences. Today, Chile is often considered more "advanced". By 1990, 86 percent of Chile's population was urban, compared to 73 percent of Mexico's (U.N., 1991). Perhaps 6.6 percent of Chile's 15 and over population was illiterate in 1990 compared to 12.7 percent in Mexico (ECLAC, 1991). Chile's 1985-1990 infant mortality rate was around 18 compared to 42 in Mexico. Its fertility also was lower (with a total fertility rate in 1990 of 2.5 compared

to 3.8 in Mexico). Perhaps most relevantly of all, Chile's elderly proportion of the population, 9.0 percent, was greater than that of the region at large, 7.2 percent, while Mexico's proportion was less, 5.8 percent (U.N., 1995). Still, that proportion will grow in each country to a similar level by 2050, perhaps to 23 percent (medium variant; U.N., 1995).

Thus the hope is to deepen comparison that has been on the global level to a much-needed comparison on the regional level, and to simultaneously examine kinship in addition to basic household composition.

THE STUDY

To describe the coresident kinship relations of unmarried elderly women in Chile and Mexico, we plot the distribution of residential relationships with information available in country censuses. This cannot be as complete as one would like, especially in Chile, but we can at least see that extended kin can be coresidentially very important. The study then examines two speculations regarding unmarried elderly women: 1) that the likelihood of living alone is diminished by having children but that other kin may be important as well, and 2) that the likelihood of living alone does not vary noticeably by socioeconomic group. To examine the speculations, we estimate a crude multivariate model that excludes those unmarried elderly women who headed simple households with dependent children since they were at no risk of living alone.

Data

The empirical data for this study come primarily from microlevel samples of the 1990 Mexican, and 1982 and 1992 Chilean national censuses. Out of over 800,000 cases, the final Mexican sample of unmarried (either consensually, religiously or civilly) 60+ year old females was 12,703, approximately 1.6

percent of the total sample. Out of over 554,700 records, the 1982 Chilean census had 16,554 relevant cases, about 3 percent of the total sample.³ Similarly, out of about 280,000 cases, the 1992 Chilean sample had 8,698 unmarried 60+ year old females, 3.1 percent of the total.

Both the 1990 Mexican and the 1992 Chilean censuses distinguished between "dwelling" or housing structure and "household" or social group who occupied the dwelling. In most cases, "dwelling" and "household" were the same, but in some cases more than one "household" occupied a "dwelling" (*vivienda*). (This distinction was not made with the Chile 1982 data.) Since some older people want to maintain an independent residence while living right next to a kinsman, this study considered "living alone" to be when the "dwelling" was only occupied by one person. This obviously cannot take account of individuals who might live in adjacent dwellings, but the census had to enumerate such dwellings separately. Evaluation of our estimate of solo living must take this into account.

The data can help outline the more or less traditional kin situation nicely in the two countries whereas researchers such as William Goode (1963) and John Hajnal (1965) usually avoided the region because of its poor data. Part of the reason for their difficulty has been overcome with the recent data because being in a consensual union is now considered a *bone fide* marital status and fertility information is gathered for *all* women, not just formally-married women. This enables us to note for instance, that in Chile in 1992, 44 percent of the women coded as never married were also reported to have at least one child (similar in 1982) while in Mexico in 1990, this was 27 percent. Without intending to develop precise estimates of celibacy, for our purposes here we can identify separately single women without any child from

³ The 1982 Chilean sample was about twice as big as the 1992 one. The 1982 data were graciously made available through the *Changing Household in Latin America* project of the University of Wisconsin-Madison's Center for Demography and Ecology.

'single' women who did have a child (and may have once been in a consensual union).

An important feature of the 1990 Mexican census was that its "relation to head" variable was quite detailed. While the 1992 Chilean census had 11 "relation to head" categories including "sibling of head"--better than many censuses including the 1982 Chilean one--grandparents were still categorized as "other relative" along with aunts, uncles, nieces, nephews, and others. Mexico in contrast went into such detail that a separate document was required to list all the possibilities. Instead of "other relative" (the first of three columns of data), the data specify whether someone was a mother, stepmother, mother-in-law, sister, stepsister, grandmother, great-grandmother, great-great-grandmother, aunt, cousin, niece, godmother, or another relative of the head. Such detail must cause envy.

Another nice feature of the 1990 Mexican census data is that it contains information on household composition using a modification of the comparative scheme recommended by the United Nations (e.g., U.N., 1980). A *household* scheme rather than a *family* scheme, the scheme is still largely based on *family* relations and uses information on household members's relation to the head (in addition to information on age and marital status). Thus households are solitary, nuclear, extended, composite or co-resident. Only solitary and co-resident households are non-family households while composite households have a family core and an unrelated individual such as a domestic or lodger. Composite households seemed fairly uncommon in Mexico in 1990. It was necessary to use the 1982 Chilean census to obtain similar information for Chile (e.g. Palloni et al., 1994). However, composite households were much more common there. Fortunately, households were also grouped according to the Hammel/Laslett **family** scheme (see Hammel and Laslett, 1974), and it was possible to determine that most of the composite households there were in fact extended family households.

A First Look

The first three columns of figures in Table 1 provide an overview of the coresidential kinship situation of all unmarried elderly women in Chile and Mexico. Around 1990, 13-16 percent of them lived alone (a little less in Chile in 1982). Around 1990, almost half of the women headed multiperson households in Chile while 37 percent did so in Mexico. Although the 1990 Mexican figure might seem similar to the figure for Chile in 1982, only a quarter or less of the households headed by the unmarried elderly women were nuclear (or simple) in Chile in 1982 compared to close to half in Mexico in 1990! Thus, it may be common for us to think that most older unmarried women either live alone or as part of an extended family household, but many of them are still in the role of carer, not caree, in nuclear family households, especially younger women (aged 60-64) and especially in Mexico. They may have been denied the assistance of a mate, but they were still raising their children in a separate residence.

One should also observe the disparity (or lack of it) between heading a nuclear household and living in one. Necessarily viewing the Chilean situation in 1982 again, we see little difference between heading a nuclear household and living in one. In Mexico in contrast some unmarried elderly women in nuclear households were in fact children of the head. Two percent of all unmarried elderly women in Mexico (9% of the "celibate" ones) were listed as children of the household head compared to less than half that in Chile. Perhaps the custom of never-marrying in order to look after parents was more prevalent in Mexico than in Chile (see also Brandes, 1993).

Over 70 percent of the women in Chile in 1982 lived in extended family households compared to about 55 percent in Mexico in 1990. Consistent with the idea of greater household complexity and/or more headship while in an extended family household in Chile, in both 1982 and 1992 unmarried elderly women in Chile were much more likely to head households containing

grandchildren than in Mexico in 1990 (Table 1). On the other hand, they were only slightly more likely to live with sibling heads and they were about as likely to live as parents or parents in-law. As the Mexican data set enabled a better breakdown of 'other relative' than the Chilean ones, it is possible to see that a noteworthy proportion of the older unmarried women were aunts (2%) and grandmothers (4%) of the head there.

The Importance of Children

When people think about an elderly person's family, they typically think first in terms of the adult children, and may even talk about the family structure of elderly people as consisting of grandparents, adult children and grandchildren (e.g. Contreras de Lehr, 1992). After all, most people do have children, a commonly-stated expectation is that children will provide security in old age (Bulatao, 1979; Kaçitcibasi, 1982), and those children naturally have children of their own. Nugent (1985) discussed the idea that security in old age might be a prime motive for fertility, especially for women, and later (1990) argued further for the importance of norms related to children providing "old age security" in rural areas of developing countries (after exploring the inadequacy of Mexico's social security system with Gillapsy in 1983). Zúñiga and Hernández (1994:229) reported that the mean number of children who resided with parents in three rural areas of Mexico was between .9 and less than two. Our figures buttress this idea because many of the women were listed as the parent (in-law) or grandmother of the household head (Table 1). This is especially so of women who did not head nuclear/simple family households (second set of figures in Table 1 that exclude Chile 1992, alas). But even with these women the difference persists that in Chile they were more likely to head their own households, live in extended family households, and live with grandchildren than in Mexico.

While most elderly unmarried women have surviving children, a

surprisingly large proportion of them did not in Chile and Mexico in the early 1990s, 18-19 percent of them. Some had children who died while others never did have any children. It is difficult to compare this to other countries in Latin America,⁴ but the level appears similar to that reported by Rubinstein (1987) for industrialized nations. The issue of childlessness has not received much attention in the gerontological literature to date despite its potential importance, and Rowland (1998a, b, c) is only beginning to fill in the gap by studying the situation in various advanced industrial countries including Australia.

In a piece that is fast becoming a classic, Rubinstein (1987) first quotes from Nydegger (1983: 28) regarding the dismal fate in old age of people who were childless:

sizable percentages of elderly have no surviving children and have only marginal and unenforceable claims on more distant relatives. Without personal resources and in the absence of institutionalized aid, their position is generally wretched, even in societies professing reverence for the aged.

But then he argues that such generalization cannot possibly span all societies with their varied kinship patterns. This would seem especially true in populations that experienced high levels of never marriage. Several times, Rubinstein makes the point that childless people may anticipate "later life social needs and act[ed] to set up potential care giving relationships." He argues furthermore that "Almost nothing has been reported specifically about the support needs and support adequacy of childless elderly in developing countries."

Surprisingly, the lack of research to which Rubinstein alludes includes demographic investigations because they often seem to be limited to elderly people with children (see e.g. Das Gupta, 1997; DaVanzo and Chan, 1994 for

⁴ In his survey of demographic issues in aging, Myers (1992:53) is able to report on the percentage of women 45-49 childless in a number of Latin American countries between 1974 and 1981, but the countries do not include either Chile or Mexico and are not particularly comparable with our figures.

Malaysia; Elman and Uhlenberg, 1995 or Schoeni, 1998 for the United States historically; Martin, 1989 for four Asian countries). People have erroneously equated extended family living with living with a child (yes/no) although children are not the only kin an older person may have, many children in fact are still part of a nuclear family unit not an extended family unit,⁵ and elderly people who have children may not live with those children but rather with other kin.

So is it the case that everyone with children in Chile and Mexico lived with one of them when old and that conversely, if a woman did not have any children she would live alone? No. According to our figures about 11 percent of the elderly unmarried women *with* surviving children lived alone in Chile in 1992 (10% in 1982) and 14 percent did so in Mexico (1990). Among women estimated to have **adult** children only, the proportion may be as high as 17 percent in Mexico (Table 1)! Even if the opposite is the norm, there are still situations in which adult children are unwilling or unable to provide residence to an old parent such as when they are estranged, have migrated away in search of employment, or are financially unable to care for anyone, perhaps even themselves. Or the older person herself might prefer to stay where she is rather than move to join a child's household. Conversely, according to our figures, (not shown), in Chile only 22 percent of the women with no surviving children lived alone in 1992 (same in 1982) and only 25 percent did so in Mexico; at least three quarters of the childless unmarried elderly women lived with others, primarily kin.

It is important for understanding kinship to distinguish between childless women who never married and those who did marry because the natal

⁵In my own research, I have encountered, more than once, the gratuitous acknowledgment that it is technically possible to include all elderly in my analysis if I define household extension as living with kin not limited to children, but that I am only playing with words because in reality it is supposedly a with child/not with child situation.

kin group often feels continued responsibility for someone who never left. Consistent with such reasoning, many of the women lived as siblings (in-law) or aunts (in Mexico anyway) of the household head if they had remained single and childless. Also, especially in Mexico, many of the 'celibates' were listed as the child of the household head. Yet the country differences still persisted even among this group: higher headship and more extended family living in Chile than in Mexico.

A Multivariate Model. Does the non-negligible but not-overwhelming difference in non-family living between childless women and those who have at least one surviving child extend to the number of surviving children as well? On the one hand is the argument that the likelihood that at least one child will help is enhanced--the risk is spread--if there are more children. On the other hand is the argument that having only a few children actually enhances security because each child can receive more resources than would be possible if there were more children, and can be better positioned to lend assistance later on. Less extreme is the argument that number of children does not matter because all that is needed is one, and if one child helps out, the others are "freed" to carry on. Thus Brandes (1993) described a situation in traditional rural Mexico in which the continued residence with her parents of a daughter who never married enabled the other children to marry and establish independent households while being assured that their parents were being cared for. Zúñiga and Hernández (1994) showed that in three rural areas of Mexico in 1985 out of an average of 8.6 children having been born alive and 5.9 still living, only an average of 2.5 children actually helped their parents. Did the others feel that their help was not necessary?

Still, it is generally thought that the more children one has, the more likely that one will reside with the elder parent (Martin and Kinsella, 1994). Since this moves us away from examining 'relation to head' data to focusing on solitary living, the issue is best handled by estimating a multivariate model

that can estimate a relationship net of a number of other factors although the number of those factors is very limited here. It cannot be a simple additive model however, because of the interaction between marital status and number of children. Also, when examining the likelihood of living alone, we can only include women at risk of living alone. If women have dependent children they cannot live alone. The best we can do here is to exclude women who head nuclear or simple family households.⁶ As the 1992 Chilean data do not have the necessary information, we use 1982 data instead but the findings can be considered largely applicable to the 1992 situation as well.

In the model, each number of children is treated as a separate category up to seven children. Eight children and more are lumped together into the last category.⁷ Marital status has four categories: single, currently married (consensually, civilly and/or religiously), separated/divorced and widowed. Single women who had no children ("celibates?") are distinguished from other single women in a type of interaction between number of children and marital status.⁸

Use of a multivariate model enables us to also control for age and tenancy. Since frailty, childlessness and sibling loss increase with age despite wide variation among individuals, controlling for age is an attempt to

⁶Mexico had a relatively small percentage of composite households, but Chile had a large percentage. By selecting out 'simple' households there, we were able to focus on whether the family core was nuclear (or simple).

⁷ Technically, only categorical variables require one to turn each category into a separate "dummy" variable but for policy considerations, it would seem reasonable to want to determine what effect having, separately, 0-7 or 8+ children was for the likelihood of living alone. For instance, having one child might be critical with a noticeable added advantage of having a third but there might be a negligible additional value of having a fourth or fifth. The issue is obviously complicated, as DaVanzo and Chan's 1994 work suggests (they were able to consider the ages and gender of the children as well as the number), and needs to be investigated much more fully. But we can at least examine the effect of individual numbers in a categorical fashion.

⁸It may be useful to note that in describing the Spanish family historically, Reher (1997:43) noted: "Celibate sisters, nieces and nephews, and widowed mothers were typical co-residents in Spanish households."

control for kin availability, health and/or need for assistance with daily living. Age is measured in five-year categories because it is not simply linearly related to the likelihood of living alone--young and old "old" tend to live with others more than those in the middle of old age. Home ownership enhances the ability or attractiveness of coresiding on the part of adult kinsmen (the censuses do not specify who owns the place).

Beside number of children, marital status and "celibacy," two other factors in the model, discussed at greater length shortly, are urban/rural residence (or size of place in Mexico) and education. Although an attempt is made to be comparable--for instance education in each country is grouped into three broad categories of low, medium, and higher--the variables are coded differently in each country.⁹ Chile's urban/rural variable had two categories while Mexico's "location size" variable had three: less than 15,000 inhabitants, 15,000-99,999 inhabitants and 100,000 or more inhabitants.¹⁰

Figures summarizing the estimated model in terms of logit coefficients and their standard errors (alone, yes=1/no=0) are shown in Table 2. It is clear that in both countries barring the fact that celibates were much less likely to live alone than others, women without any surviving children were more likely to live alone than were women with a child. Yet the effect of having more than one child was ambiguous: In Mexico, although contrasts became increasingly negative with each additional child, there was no significant difference in the likelihood of living alone by whether a woman had only one or even eight or more children. This was not found to be the case in Chile despite (maybe because of?) that country's lower fertility. In

⁹Education in Chile was coded as 1=less than primary; 2=primary (including completing 3 years of the humanities course); 3=more than primary. Education in Mexico was coded as 1=three years or less of school; 2=most or all of primary school; 3=more than primary.

¹⁰Mexico originally had 5 categories, but I found that collapsing that down to three made little difference.

Chile, there was no difference in likelihood depending on whether a woman had one, two or three children, but the difference between having only one and four or more children was significant. Just the estimated size of the contrasts are enough to make one pause, as that between having no or three children in Chile was greater (in negative terms) than that between having no or eight or more children in Mexico (Table 2)!

The Importance of Socioeconomic Status

All groups share a concern that elderly people be cared for, but elderly people too must want coresidence, and there can be a big gulf between values and actual conditions. Economists talk of "privacy" as being a value that should not be ignored when thinking about living arrangements of elderly people even if people tend to think of themselves as part of a group rather than as individuals (see e.g. DaVanzo and Chan, 1994), and they talk of financial resources as being a major impediment to independent living (also see Hernández and Alonso, 1997). We have no clear association of preference differences with socioeconomic characteristics but it has been suggested that urban residents and more educated elderly might live more independently, both because they have more resources available to carry out independent living, and because they live in a social context that is more open to nonconventional lifestyles, especially if social conditions begin to change and there is some prestige attached to emulating the situation in places such as the United States (where most unmarried elderly women live alone). In this regard education may be a clearer indicator of socioeconomic status than size of place of residence because the latter may involve differences in the availability and migratory behavior of children and/or the availability and cost of housing as well as any attitudinal difference.

A review of past research was not particularly encouraging although I had found urban/rural residence and education to be important in South Korea

in the 1970s (De Vos and Lee, 1993). For instance, Martin and Kinsella (1994) referred to findings that in some places elderly urban residents were more likely to live alone, while in other places they were less likely to, or urban residence just did not make a (net) difference at all. Regarding education, Ruggles (1996) did not find literacy to be important for whether or not an elderly person lived with kin in the United States in 1880 or 1910 after controlling for other factors. Martin (1989) found that years of education had no effect on whether elderly people lived with children in Korea, Malaysia, the Philippines and Fiji. DaVanzo and Chan (1994) found years of education to make no difference when they limited their view to unmarried elderly in Malaysia. Casterline et al. (1991: Table G) found that education had no effect on the likelihood of living alone among unmarried elderly people in the Philippines, Singapore or Thailand although they did find it to make a difference in Taiwan. Davis et al. (1996) found that education did not have an effect on the likelihood that either unmarried elderly men or women lived alone if they became unmarried between 1971-75 and 1982-84 in the United States, and Zsembik (1992) found that education was not important in determining the likelihood of living alone among her sample of unmarried elderly Hispanic women in 1988 in the United States.

As was the case with number of children, the findings for Chile and Mexico were quite different (Table 2). Education did not seem important in Chile but it made a difference in Mexico, even after controlling for age, marital status, number of children, home ownership and urban/rural residence. Better educated women were more likely to live alone in Mexico. Urban/rural residence made a difference in both countries, in opposite ways (Table 2). In Chile, urban residents were **more** likely to live alone as one might expect if rural residents could be considered more 'traditional.' In Mexico, residents of large urban areas were **less** likely to live alone than residents of

increasingly smaller areas.¹¹

Could it be that education helps indicate financial ability to remain independent in Mexico but not in Chile? Could it be that kin feel less obliged if a woman has more financial ability in Mexico? Or maybe the woman herself remains independent if she can in Mexico? Mexican findings about size of place could also be particularly serious if potential services were most apt to be located in the larger urban areas. Mexican findings also suggest the potential importance of ethnicity if indigenous people are most apt to live in the smaller places.

Although our main focus has been on number of children, education and urban/rural residence, we should note that in this very limited model, control variables had unsurprising effects (Table 2). For instance, there was a curvilinear relationship between age and living alone: While insignificant, 60-64 year olds were less likely to live alone than 65-69 year olds, and in Chile beginning in the upper 70s and in Mexico beginning at age 80, the oldest old also tended to be less likely (significantly so this time) to live alone. Also, most of the women lived in owned (outright or being bought) homes, and were slightly less likely to live alone if the home was indeed owned. Finally regarding marital status after the never-married celibates were removed, the difference in likelihood between never-married, separated/divorced and widowed women was insignificant.

I must emphasize that this model is not intended to explain or predict why some elderly unmarried women live alone while others do not in either Chile or Mexico but rather **is** intended to show that kinship matters even if

¹¹Since the effect of education was enhanced by controlling for location size and vice versa, I tested for an interactive effect. It was insignificant.

those women do not have surviving children of their own, and that group differences are not very important even if there are minor differences, especially in Mexico. A good way to emphasize that point is that in terms of a common measure "explained variance" or a pseudo-R²,¹² the logit model only accounted for 3.3 and 2.9 percent of the variance in the likelihood of living alone among the older unmarried women in Chile and Mexico respectively. Contrary to what some might expect, whether or not women had surviving children and/or their education or urban/rural residence did not explain that much.

CONCLUSION

This paper was intended to go beyond noting that unmarried elderly people lived with extended family to an intermediate extent in Latin America compared to in Asia or North America by trying to shed some light on the coresidential kinship situation of elderly unmarried women in two rather different Latin American countries, Chile and Mexico. The countries were similar in levels of solitary living, childlessness, and living as parents (in-law) of the head among unmarried elderly women. Factors related to elders in a family such as inheritance and nuptiality patterns (broadly defined) seemed similar. It may come as no surprise therefore, that the countries also shared the fact that kinship ties seemed important for everyone, that the family cared for both childless and childed elderly members. Although childless unmarried elderly women were somewhat more likely to live alone than women with children in either country, they often lived with siblings or other relatives such as nieces or nephews.

¹²Pseudo R² is often calculated as $c/(N+c)$ where $c = -2\text{Log}_1 - -2\text{Log}_0$ and N = sample size; where 1 is the model with intercept and covariates and 0 is the model with just the intercept. (See Aldrich and Nelson, 1984).

Yet the countries showed important disparities within the general situation. For one, the tendency for unmarried elderly women to head multi-person households was much higher in Chile than in Mexico. And those households were not simply the remnants of a nuclear family--dependent children and their mother without the father. Related to this, elderly unmarried women were much more likely to live with their grandchildren in Chile than in Mexico. Despite the general notion that Mexican society is family oriented, households there seem much more likely to be nuclear than elsewhere in Latin America. Third, the custom of celibacy, perhaps in order to care for elderly parents, may have been more common in Mexico than in Chile. Roughly similar proportions of unmarried elderly women (about 11%) may have been celibate, but more than 9 percent of those were listed as 'children' of the household head in Mexico in 1990 compared to less than 4 percent in Chile in 1992.

There was a difference between countries in the effect of having more than one surviving child on the likelihood of living alone among elderly unmarried women. Despite (or perhaps because of) its lower overall fertility, number of children had a much stronger effect in Chile than in Mexico. In the former country, there was a significant difference between having only one or four or more surviving children, but there was no effect between having only one or even eight or more children in Mexico. Could this suggest that having more than one child may not enhance old age security in Mexico?

There was also a difference between countries in the modest effects of education and urban/rural living on the likelihood of living alone among elderly unmarried women. Education seemed to have no effect in Chile but in Mexico more highly educated women were a little more likely to live alone. Rural women were a little less likely than urban residents to live alone in Chile, but were a little more likely to live alone in Mexico. Even barring the facts that neither variable was truly comparable and that effects were

small, the different findings are puzzling and at the moment belie explanation, especially given that we know so little about the family/household in either country.

In general, the figures probably reflect a more or less traditional way of coping with old age that will be severely strained in the future as Chile and Mexico continue to experience fundamental demographic, social and economic changes. Just the raw population figures cause one to pause: an estimated fourth of the population may be 60 years and above by 2050 compared to 9 and 6 percent in 1990. But there are a whole host of changes with concomitant stresses on the family, well-articulated by Habib (1988: 195):

On the one hand, families are the major source of care for the elderly in most countries [citations]. This has encouraged some to pursue ways of further encouraging the family in that role. On the other hand, there are frequent warnings that both the capacity to provide support and the norms motivating such support are weakening as families grow smaller; as women, the traditional care-givers, expand their role in the labor force; and as the period of support of a disabled parent may be increasing [citations]. While these concerns predominate in the developed world, they are becoming more and more frequently cited in regard to the developing world as well [citations].

Even if in most places including Chile and Mexico, residence with elderly people is an important kind of assistance that many elderly people need and younger people can and currently expect to provide, one has to wonder about the future. Bialik (1992) articulates this nicely for Mexico:

Politically, socially, and psychologically, family members are prepared to assume the responsibility to take care of their elderly relatives, but priorities have changed. First, young adults solve their necessities and those of their children and only after that are the needs of the old considered. Although the elderly do receive care, it may not be sufficient.

Thus old people may continue to receive support from adult children in the absence of an alternative, but an alternative might be both promoted and desired by young and old alike. This may lead to the continuation of traditional mechanisms as much as possible, including care for elderly family

members, but the generation in the middle might be fulfilling responsibility to their parents even as they no longer expect such care from their own children. Rather, they probably hope that better pensions will help them when they become old.

The financial situation of elderly people may improve in the future as pension reforms begin to have an effect in Chile and Mexico. Public health care, like pensions, can do much to ease the hardships of old age for elderly people and their families. But finances and health care, while crucial, are not the only factors in a person's well-being. Family ties include many less formal elements that public policy would find difficult to replace. Can policy make use of the valuable tie between kin of both childed and childless elders (not just ties between parents and children) that takes various forms throughout the life course of different people? I do not mean in a traditional fashion since many traditional types of family structures have exacted an unfair price on certain family members, usually the women and children. But just as the proportion of the population 60 and over will be unprecedented, so too can the way to integrate elderly people in a kin network. Children benefit from contact with adults who are not parents or teachers just as elders benefit from contact with people other than "senior citizens" who are neither subservient nor dominant. The challenge is to foster social institutions that can promote valuable social ties in an evolving, new social context in which mortality is low and the proportion of older citizens is relatively high.

BIBLIOGRAPHY

- Aldrich, John H. and Forrest D. Nelson. 1984. *Linear Probability, Logit, and Probit Models*. Newbury Park, CA; London, New Delhi: SAGE Publications.
- Barrientos, Armando. 1995. "Pension Reform in Latin America." *Ageing and Society* 15:407-14.
- _____. 1997. "The Changing Face of Pensions in Latin America: Design and Prospects of Individual Capitalization Pension Plans." *Social Policy & Administration* 31(4):336-53.
- Bialik, Raquel. 1992. "Family Care of the Elderly in Mexico." Pp. 31-46 in *Family Care of the Elderly Social and Cultural Changes*, edited by Jordan I. Kosberg. Newbury Park, CA; London, Eng.; New Delhi, India: SAGE Publications.
- Bongaarts, John. 1989. "The Demographic Determinants of the Duration and Incidence of Widowhood." Pp. 55-65 in *Later Phases of the Family Cycle*, edited by E. Grebenik, Höhn and R. Mackensen. Oxford, GB: Clarendon Press.
- Brandes, Stanley H. 1993. "Aging and Intergenerational Relations in Spain and Spanish America." Pp. 147-66 in *Annual Review of Gerontology and Geriatrics, Vol. 13 Kinship, Aging and Social Change*, edited by George L. Maddox and M. Powell Lawton. New York: Springer Publishing Company.
- Bulatao, Rodolfo. 1979. "On the Nature of the Transition in the Value of Children." *Papers of the East-West Population Institute* 60-A.
- Camacho, Luis A. 1992. "Financing Social Security in Latin America: New Perspectives in the Light of Current Economic Developments." *International Social Security Review* 45(3).
- Casterline, John B., Lindy Williams, Albert Hermalin, Ming-Cheng Chang, Napaporn Chayovan, Paul Cheung, Lita Domingo, John Knodel, and Mary Beth Ofstedal. 1991. *Comparative Study of the Elderly in Asia*. Working Paper. University of Michigan Working Paper, vol. 91-10. University of Michigan.
- CEPAL Comisión Económica para América Latina y el Caribe. 1992. *Hacia un Perfil de La Familia Actual en Latinoamerica y el Caribe*. LC/R/1208 LC/DEM/R.153 Serie A, N°247. CEPAL.
- Contreras de Lehr, Esther. 1992. "Aging and Family Support in Mexico." Pp. 215-23 in *Family Support for the Elderly: The International Experience*, edited by Hal L. Kendig, Akiko Hashimoto and Larry C. Coppard. Oxford, New York, Tokyo: Oxford University Press.
- Dahlin, Michel. 1980. "Perspectives on the Family Life of the Elderly in 1900." *The Gerontologist* 20:99-107.

- Das Gupta, Monica. 1997. "Kinship Systems and Demographic Regimes." Pp. 36-52 in *Anthropological Demography: Toward a New Synthesis*, edited by David I. Kertzer and Tom Fricke. Chicago, London: University of Chicago Press.
- DaVanzo, Julie and Angelique Chan. 1994. "Living Arrangements of Older Malaysians: Who Coresides with Their Adult Children?" *Demography* 31(1):95-113.
- Davis, Maradee A., Deborah J. Moritz, John M. Neuhaus, and John D. Barclay. 1996. "The Influence of Sociodemographic Characteristics and Morbidity on the Likelihood of Living Alone Among Older U.S. Adults Who Become Unmarried: A Comparison of Women and Men." *Journal of Women & Aging* 8(2):3-17.
- De Vos, Susan. 1990. "Extended Family Living Among Older People in Six Latin American Countries." *Journal of Gerontology: SOCIAL SCIENCES* 45(3):S87-94.
- _____. 1995. *Household Composition in Latin America*. New York: Plenum Publishing.
- De Vos, Susan and Karen Holden. 1988. "Measures Comparing the Living Arrangements of the Elderly." *Population and Development Review* 14(4):688-704.
- De Vos, Susan and Yean-Ju Lee. 1993. "Change in Extended Family Living Among Elderly People in South Korea, 1970-1980." *Economic Development and Cultural Change* 41(2):377-93.
- Echarri Cánovas, Carlos Javier. 1995. "Hogares y Familias en Mexico: Una Aproximacion a Su Analisis Mediante Encuestas por Muestro." *Estudios Demograficos y Urbanos* 10(2):245-93.
- Economic Commission for Latin America and the Caribbean. 1991. *Statistical Yearbook for Latin America and the Caribbean 1991 Edition*. Chile: United Nations.
- Elman, Cheryl and Peter Uhlenberg. 1995. "Co-Residence in the Early Twentieth Century: Elderly Women in the United States and Their Children." *Population Studies* 49:501-17.
- Goode, William J. 1963. *World Revolution and Family Patterns*. New York: The Free Press.
- Habib, Jack. 1988. "Aging Population Structure and Support for the Elderly." Pp. 194-226 in *Economic and Social Implications of Population Aging*, edited by United Nations Department of International Economic and Social Affairs. New York: United Nations.
- Hajnal, John. 1965. "European Marriage Patterns in Perspective." Pp. 101-43 in *Population in History: Essays in Historical Demography*, edited by D.V. Glass and D. E. Eversley, C. London, GB: Edward Arnold.

- Hammel, Eugene and Peter Laslett. 1974. "Comparing Household Structure Over Time and Between Cultures." *Comparative Studies in Society and History* 16:73-109.
- Hashimoto, Akiko, Hal L. Kendig, and Larry C. Coppard. 1992. "Family Support to the Elderly in International Perspective." Pp. 293-308 in *Family Support for the Elderly: The International Experience*, edited by Hal Kendig, Akiko Hashimoto and Larry Coppard. Oxford, New York, Tokyo: Oxford University Press.
- Hauser, Philip M. 1976. "Aging and World-Wide Population Change." Pp. 58-86 in *Handbook of Aging and the Social Sciences*, edited by Robert H. Binstock and Ethel Shanas. New York, Cincinnati, Toronto, London, Melbourne: D. Van Nostrand Company.
- Hernández, Pilar Pérez-Fuentes and Arantza Pareja Alonso. 1997. "Ageing Alone or in a Family: The Case of Bilbao, 1825-1935." *Continuity and Change* 12(1):79-102.
- Hiscock, Julia and David E. Hojman. 1997. "Social Policy in a Fast-Growing Economy: The Case of Chile." *Social Policy & Administration* 31(4):354-70.
- Kaçitcibasi, Cigdem. 1982. "Old-Age Security Value of Children: Cross-National Socioeconomic Evidence." *Journal of Cross-Cultural Psychology* 13(1):29-42.
- Laslett, Peter. 1977. "Characteristics of the Western Family Considered Over Time." *Journal of Family History* 2:89-115.
- Lee, Yean-Ju and Alberto Palloni. 1992. "Changes in the Family Status of Elderly Women in Korea." *Demography* 29(1):69-92.
- López Barajas, Ma. de, la Paz and Haydea Izazola Conde. 1994. *El Perfil Censal de Los Hogares y las Familias en Mexico*. Aguascaliente, Mexico: INEGI.
- Martin, Linda G. 1989. "Living Arrangements of the Elderly in Fiji, Korea, Malaysia, and the Philippines." *Demography* 26(4):627-43.
- Martin, Linda G. and Kevin Kinsella. 1994. "Research on the Demography of Aging in Developing Countries." Pp. 356-403 in *Demography of Aging*, edited by Linda G. Martin and Samuel H. Preston. Washington, D.C.: National Academy Press.
- Montecinos, Verónica. 1997. "Economic Reforms, Social Policy, and the Family Economy in Chile." *Review of Social Economy* LV(2):224-34.
- Muñoz Mickle, Mónica, Carmen Reyes Vergara, Covarrubias Ortúzar Paz, and Emilio Osorio Alvarez. 1991. *Chile en Familia: Un Analisis Sociodemografico*. With the assistance of Gabriela Muñoz Droguett. Chile: UNICEF.

- Myers, George C. 1992. "Demographic aging and family support for older persons," pp.31-68 in *Family Support for the Elderly: The International Experience* edited by Hal L. Kendig, Akiko Hashimoto and Larry C. Coppard (Oxford University Press: Oxford, New York, Tokyo).
- Neupert, Ricardo F. 1992. "Extended Households: A Survival Strategy in Poverty." Pp. 197-208 in *Fertility Transitions, Family Structure and Population Policy*, edited by Calvin Goldscheider. Boulder, CO: Westview Press.
- Nugent, Jeffrey B. 1985. "The Old-Age Security Motive for Fertility." *Population and Development Review* 11(1):75-97.
- _____. 1990. "Old Age Security and the Defense of Social Norms." *Journal of Cross-Cultural Gerontology* 5:243-54.
- Nugent, Jeffrey B. and R. Thomas Gillapsy. 1983. "Old Age Pensions and Fertility in Rural Areas of Less Developed Countries: Some Evidence from Mexico." *Economic Development and Cultural Change* 31(4):809-29.
- Nydegger, Corinne N. 1983. "Family Ties of the Aged in Cross-Cultural Perspective." *The Gerontologist* 23(1):26-32.
- Ozawa, Martha N. (ed.) 1989. *Women's Life Cycle & Economic Insecurity: Problems & Proposals*. New York, Westport CT, London: Praeger.
- Palloni, Alberto and Susan De Vos. n.d. "Changes in Families and Households in Latin America, 1950-1980." A product of the "Changing Household in Latin America" project. Center for Demography and Ecology, University of Wisconsin-Madison. synthesis of a 1992 ASA paper and 1994 PAA paper.
- Palloni, Alberto, Susan De Vos, Elizabeth Arias, Beth Fussell, and Hanta Rafalimanana. 1994. "Changes in Families and Households in Latin America, 1970-1990." Population Association of America Meetings.
- Pérez, Elías Anzola; Helena Restrepo, Robert Wallace, and Patricia Colsher. n.d. *Análisis Comparativo del Envejecimiento en Brasil, Colombia, El Salvador, Jamaica y Venezuela*. Technical Paper, vol. no. 38. Washington, D.C.: Pan American Health Organization.
- Reher, David S. 1997. *Perspectives on the Family in Spain Past and Present*. Oxford, GB: Clarendon Press.
- Rendall, Michael S. and Alden Speare Jr. 1995. "Elderly Poverty Alleviation Through Living with Family." *Journal of Population Economics* 8:383-405.
- Rowland, D.T. 1998a. "Consequences of Childlessness in Later Life." *Australasian Journal on Ageing* 17(1):24-28.
- _____. 1998b. "The Prevalence of Childlessness in Cohorts of Older Women." *Australasian Journal on Ageing* 17(1):18-23.

- _____. 1998c. *Cross-National Trends in Childlessness*. Working Paper in Demography no.73. Research School of Social Sciences: The Australian National University.
- Rubin, Rose M. 1997. "The Economic Status of Older Women." Pp. 75-92 in *Handbook of Women and Aging*, edited by Jean M. Coyle. Westport CT, London: Greenwood Press.
- Rubinstein, Robert L. 1987. "Childless Elderly: Theoretical Perspectives and Practical Concerns." *Journal of Cross-Cultural Gerontology* 2:1-14.
- Ruggles, Steven. 1996. "Living Arrangements of the Elderly in America: 1880-1980." Pp. 254-71 in *Aging and Generational Relations Over the Life Course: A Historical and Cross-Cultural Perspective*, edited by Tamara K. Hareven. Berlin, New York: Walter de Gruyter & Co.
- Schoeni, Robert F. 1998. "Reassessing the Decline in Parent-Child Old-Age Coresidence During the Twentieth Century." *Demography* 35(3):307-313.
- Schmink, Marianne. 1984. "Household Economic Strategies: Review and Research Agenda." *Latin American Research Review* 19(3):87-101.
- Speare, Alden Jr. and RC Avery. 1993. "Who Helps Whom in Older Parent-Child Families." *Journal of Gerontology Social Sciences* 48(2):S64-73.
- Uhlenberg, Peter. 1980. "Death and the Family." *Journal of Family History* 5(3):313-20.
- United Nations. 1980. *Principles and Recommendations for Population and Housing Censuses*. New York: United Nations.
- United Nations Department for Economic and Social Information and Policy Analysis. 1995. *World Population Prospects (The 1994 Revision)*. New York: United Nations.
- United Nations Department of International Economic and Social Affairs. 1991. *World Urbanization Prospects 1990*. New York: United Nations.
- United Nations Population Division of the Department of Economic and Social Affairs. 1997. *The Sex and Age Distribution of the World Populations: The 1996 Revision*. New York: United Nations.
- Wallerstein, Immanuel and Joan Smith. 1990. "Households as an Institution of the World Economy." Pp. 34-50 in *Fashioning Family Theory: New Approaches*, edited by Jetsey Sprey. Newbury Park, CA: SAGE.
- Wallerstein, Immanuel and Joan Smith. 1992. *Creating and Transforming Households: The Constraints of the World-Economy*. Cambridge: Cambridge University Press.
- Wolf, Douglas A. 1984. "Kin Availability and the Living Arrangements of Older Women." *Social Science Research* 13:72-89.

- Wong, Rebecca and Ruth E. Levine. 1992. "Estructura del Hogar Como Respuesta a los Ajustes Económicos: Evidencia del México Urbano de los Ochenta." *Estudios Demográficos y Urbanos* 7(2-3):493-509, 623.
- Zsembik, Barbara A. 1992. "Determinants of Living Alone Among Older Hispanics." *Research on Aging* 15(4):449-64.
- Zúñiga H., Elena and Daniel Hernández F. 1994. "Importancia de los Hijos en la Vejez y Cambios en el Comportamiento Reproductivo (Estudio en Tres Comunidades Rurales de México)." *Estudios Demográficos y Urbanos* 9(1):211-36.

Table 1. Relation to Household Head of Unmarried Elderly (60+) Women in Chile 1992 and Mexico 1990 (Percent Distribution)

Relation	Total			With Adult Children ¹⁴		"Celebate" ¹³			Other Without Children		
	Chile 1982	Chile 1992	Mexico 1990	Chile 1982	Mexico 1990	Chile 1982	Chile 1992	Mexico 1990	Chile 1982	Chile 1992	Mexico 1990
Solitary Head	12.6	12.9	15.8	11.2	17.5	17.5	18.6	20.2	29.6	27.7	30.2
of nuclear hhd. with grandch.	40.4	48.0	37.3	37.9	25.8	24.1	30.9	20.3	30.6	40.8	22.9
Child (in-law)	(7.5)	(18.0)	(17.3)	(25.6)	(18.3)	(0.4)	(---)	(0.8)	(1.2)	(5.9)	(6.3)
Sibling (in-law)	0.7	0.7	2.2	0.6	1.7	1.4	3.4	9.5	0.8	0.3	1.8
Parent (in-law)		5.2	4.5		1.6		22.1	24.1		9.5	8.6
Aunt	26.9	23.2	26.4	38.2	39.1	---	---	---	4.2	2.5	11.4
Grandmother			2.2		0.6			11.2			7.4
Other Relative			3.7		5.2			0.6			4.0
Unrelated	14.6	6.2	0.9	8.9	1.1	43.6	12.7	3.0	26.2	14.1	1.4
Domestic Servant	4.8	2.7	2.5	3.2	2.5	12.6	7.3	4.5	8.6	4.8	5.1
Unknown		1.2	0.5		0.5		4.2	1.9		0.4	1.1
			3.7		4.4			3.8			6.1
Household Type											
Solitary	12.6		15.9	11.2	17.5	17.5		20.2	29.6		30.2
Nuclear	7.7		22.1	0.05	4.8	1.1		11.7	1.2		13.1
Extended	59.5		54.6	70.6	69.4	53.2		55.1	41.8		46.1
Composite	20.2		4.7	18.1	5.6	28.1		5.7	27.4		6.4
(no family)	(5)			(4)		(8)			(10)		
(simple)	(3)			(1)		(4)			(3)		
(complex)	(12)			(13)		(16)			(14)		
Coresident			1.8		1.8			4.1			2.4
Unknown			1.0		0.8			3.2			1.8
With Grandchild	23.2	25.8	16.0	31.2	22.5						
Sample size	16,554	8,698	12,703	10,965	8,199	1,824	1,023	1,345	3,068	528	1,047

¹³Single childless women

¹⁴This is a rough estimate--women who did not head nuclear/simple family households with dependent children and were reported to have had children. In Chile 1982, many women (1,090) had an indeterminate number of children, making it impossible to include them.

Table 2. Logit Coefficients (and standard errors) of Regressing the Likelihood of Living Alone (0=no/1=yes) on Number of Children, Whether Celibate¹⁵, Education, Rural/Urban (Location Size) Residence, Tenancy (1=own) and Marital Status Among Unmarried Elderly (60+) Women in Chile (1982) and Mexico (1990)¹⁶

	Chile **	Mexico **
Children		
0	0.861* (.089)	0.694* (.105)
1	---	---
2	-0.151 (.090)	-0.011 (.109)
3	-0.288 (.097)	-0.073 (.110)
4	-0.429* (.107)	-0.093 (.113)
5	-0.569* (.123)	-0.058 (.116)
6	-0.588* (.138)	-0.106 (.121)
7	-1.095* (.191)	-0.188 (.131)
8+	-1.109* (.145)	-0.193 (.110)
Celibate ¹		
No	---	---
Yes	-0.684* (.140)	-0.681* (.169)
Education		
Low	0.181 (.074)	-0.115 (.060)
Medium	---	---
Higher	0.263 (.080)	0.482* (.085)
Rural/Urban Residence		
Rural/<15,000	---	---
Urban/ 15,000-99,999	0.494* (.090)	-0.436* (.082)
100,000+		-0.686* (.060)
Age		
60-64	-0.192 (.071)	-0.239 (.079)
65-69	---	---
70-74	-0.086 (.072)	0.034 (.080)
75-79	-0.266* (.082)	0.035 (.083)
80+	-0.772* (.087)	-0.263* (.077)
Tenancy		
Not own	---	---
Own	-0.395* (.055)	-0.419* (.066)
Marital Status		
Single	---	---
Separated/ Divorced	0.090 (.091)	-0.124 (.162)
Widowed	0.028 (.073)	-0.020 (.138)

* p < .001.

** Goodness of Fit (-2Log L₀ - -2Log L₁) significant at p < .0001

¹⁵Reported as never married and having no children.

¹⁶ The sample in Mexico excludes those who head nuclear households; the sample in Chile excludes those who head simple family households (nuclear households with or without unrelated members).

Table 3. Relation to Household Head of Unmarried Elderly (60+) Women in Chile 1992 and Mexico 1990 (Percent Distribution)

Relation	Total			With Adult Children ¹⁷		Celebate			Other Without Children		
	Chile 1982	Chile 1992	Mexico 1990	Chile 1982	Mexico 1990	Chile 1982	Chile 1992	Mexico 1990	Chile 1982	Chile 1992	Mexico 1990
Solitary Head	12.6	12.9	15.8	11.2	17.5	17.5	18.6	20.2	29.6	27.7	30.2
of nuclear hhd. with grandch.	40.4	48.0	37.3	37.9	25.8	24.1	30.9	20.3	30.6	40.8	22.9
Child (in-law)	(7.5)	(18.0)	(17.3)	(25.6)	(18.3)	(0.4)	(---)	(0.8)	(1.2)	(5.9)	(6.3)
Sibling (in-law)	0.7	0.7	2.2	0.6	1.7	1.4	3.4	9.5	0.8	0.3	1.8
Parent (in-law)		5.2	4.5		1.6		22.1	24.1		9.5	8.6
Aunt	26.9	23.2	26.4	38.2	39.1	---	---	---	4.2	2.5	11.4
Grandmother			2.2		0.6			11.2			7.4
Other Relative			3.7		5.2			0.6			4.0
Unrelated	14.6	6.2	0.9	8.9	1.1	43.6	12.7	3.0	26.2	14.1	1.4
Domestic Servant	4.8	2.7	2.5	3.2	2.5	12.6	7.3	4.5	8.6	4.8	5.1
Unknown		1.2	0.5		0.5		4.2	1.9		0.4	1.1
			3.7		4.4			3.8			6.1
Household Type											
Solitary	12.6		15.9	11.2	17.5	17.5		20.2	29.6		30.2
Nuclear	7.7		22.1	0.05	4.8	1.1		11.7	1.2		13.1
Extended	59.5		54.6	70.6	69.4	53.2		55.1	41.8		46.1
Composite	20.2		4.7	18.1	5.6	28.1		5.7	27.4		6.4
(no family)	(5)			(4)		(8)			(10)		
(simple)	(3)			(1)		(4)			(3)		
(complex)	(12)			(13)		(16)			(14)		
Coresident			1.8		1.8			4.1			2.4
Unknown			1.0		0.8			3.2			1.8
With Grandchild	23.2	25.8	16.0	31.2	22.5						
Sample size	16,554	8,698	12,703	10,965	8,199	1,824	1,023	1,345	3,068	528	1,047

¹⁷This is a rough estimate--women who did not head nuclear/simple family households with dependent children and were reported to have had children. In Chile 1982, many women (1,090) had an indeterminate number of children, making it impossible to include them.

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