

**RECEIPT OF ASSISTANCE AND EXTENDED FAMILY
RESIDENCE AMONG ELDERLY MEN IN MEXICO***

SUSAN DE VOS

University of Wisconsin–Madison

PATRICIO SOLÍS

FLACSO–Sede México

VERÓNICA MONTES DE OCA

National Autonomous University of Mexico

ABSTRACT

This article focuses on help received by a nationally-representative sample of 2,376 Mexican men age 60+ in 1994. In the month before the interview, about one-half of the men received in-kind or domestic assistance, two-fifths received financial assistance, and about one-fourth received physical assistance. This was so even as almost half the men still worked, and over half (57%) had no discernable functional limitation. Using logistic regression, the study found support for the common assumption that living arrangements are an important predictor of assistance. Other factors are important too however. In fact, many elders received help from non-coresiding relatives. Beside financial remittances, help from non-coresiding relatives included in-kind, domestic, and physical assistance. Research on Mexico suggests that we need to revisit notions of a modified extended family in which non-coresidential ties can be important. Surveys need questions about frequency of contact and geographic distance between elderly people and their kin.

*This article is a synthesis of papers presented at the 1999, 2000, and 2001 Population Association of America annual meetings.

INTRODUCTION

It is difficult to read a treatise on Mexico without coming across some reference to the major importance of the family (Hanratty, 1997):

Family membership presupposes an inalienable bond among first-, second-, third-, and fourth-generation relatives, a bond that is accompanied by a corresponding set of rights and obligations. Family members are expected to display affection openly and reciprocally, as well as provide each other material and moral support . . . (pp. 117-118).

Consistent with such a view, for decades studies have found that a majority of Mexicans 60 years and older have been living in extended family households with relatives such as married children, perhaps 52% in 1976 and 1994 (De Vos, 1990; Solís, 1999). Others live in nuclear households with children who are still unmarried and dependent on their parents. Few live alone.¹ It is often assumed, rarely substantiated, that co-residence is synonymous with care while living alone is indicative of non-care. People often express concern when they see an increase in solitary living among elders because such an increase may indicate less informal support. But does it? And, since children often move away under modern conditions, is propinquity necessary to maintain close ties? Gerontologists in the United States and Europe often argue that coresidence is *not* necessary (see Bengston, Rosenthal, & Burton, 1990; Jani-Le Bris, 1993; Shanas et al., 1968) and they speak of a *modified* extended family that is modified in terms of coresidence but not in terms of support for elderly family members (e.g., Hoyert, 1991; Litwak, 1960, 1965).

Mexico relies on the family to provide care for most older people despite there having been a social security program on the books since the early 1940s. In reality, benefit schemes have either provided only part of what is needed or have covered only individuals employed in the formal sector of the economy, such as employees of formal firms with legal labor contracts, civil servants, military personnel, or employees of Mexico's petrol industry. Most people, especially in rural areas, are without non-family support. In 1994, according to our data, less than one-fifth of the elderly population received pension benefits.

Of course, family exchange is always a two-way process, and older men, especially when still economically active, earning a good salary and with grown children may help other family members out. But this study is limited to considering the *receipt* of assistance by older Mexican men. Care *by* family members is especially important for older people because they have waning powers of "exchange" on an impersonal large-scale market and may need special treatment. Usually, a person who receives more than can be returned loses face, prestige,

¹In 1994, 52.5% of Mexico's elders (60+) lived in complex family households, 22.5% lived in simple family households with children, 17.2% lived in couple-only households, 0.6% lived with unrelated people, and 7.2% lived alone. Figures in 1976 were very similar (Solís, 1999, Table 1).

and power (see Dowd, 1975). But care by family is different (but see Wilmoth, 2000). Sociologists often consider the family a basic primary group within which small-group interactions of affection, spontaneity, care, and reciprocity predominate (Cooley, 1909; Davis, 1948). Family membership entails extra benefits as well as obligations, and individuals within the family are ideally expected to give according to their ability and receive according to their need (Simmel, 1902).

Ideally, children who do not live *with* elderly parents still feel and act deserving of family help and responsible for such family members as elderly parents. This is one of the ideas behind the modified extended family and the old age security value of children (Nugent, 1990). That is, extended family is modified because ties persist despite non-coresidence. However, a study of old people in a number of rural communities in Mexico found the reality of an old-age security value of children to be mixed because some children who moved away did not help their parents at all while other children stayed near and provided a lot of help (Zúñiga & Hernández, 1994).

If there is an alternative to coresidence, people caught in an imbalanced exchange situation may opt for institutional living (Lima & Goldscheider, 2001; Wilmoth, 2000). Unfortunately, although this is changing, institutional living is *not* an option for most people in Mexico. Rather, the options may be limited to living alone, living only with a spouse (if married), or living with other people in a private household.

More abstractly, we can think of the receipt of material assistance as a matter of kinship availability, functional limitation, and economic need. Turning 60 years old does not automatically turn someone into a decrepit, needy elder deserving of assistance from kin and community. Many older men are still married with dependent never-married children, are still working, and report themselves to be in good health. Our question is whether, as one or more of these factors changes, they will then receive more assistance. Living arrangements may change from living alone to living with others, primarily the elder's married children (see Worobey & Angel, 1990). But it is not enough to just look at one dimension, for instance family structure. Such socioeconomic characteristics as educational attainment have potentially independent value for understanding assistance patterns, and must be controlled for. Our use of multivariate models will be discussed further.

Mexico's Population and Labor Force is Changing

In the future, Mexico's family relations will take place within a very different demographic context. In 2000, roughly 7% of the population was 60 or over but by 2050 this will be over 24% (United Nations, 2001). Even if by then it is reasonable to consider age 65 as the beginning of old age instead of age 60, the percentage of the population designated as old will still be over 18%. As in the United States at present, it will be far from uncommon for old people themselves to have even

older parents still alive. What is currently a relatively “young” age structure will become old in less than a lifetime, and the nature of family relationships will have to adjust. Not only will there be a greater proportion of old people, but adult children will have fewer siblings with whom to share care-taking duties. This may seem extreme, but similar, rapid, structural change will occur throughout Latin America (Palloni, De Vos, & Pelaez, 1999).

In addition, Mexican women have traditionally provided much time-consuming informal care, but female labor force participation is on the rise. For example, the ILO’s regional office for Latin America and the Caribbean estimates (or underestimates) that the employment rate of females grew from 32.5% in 1990 to 37.8% in 1998.² If women are working away from home, they cannot simultaneously be caring for elder family members at home, although they can still do a lot (see also Habib, 1988).

Research Background

Research on the receipt of informal family help by elderly men or elders in developing countries is surprisingly scant. Scientific studies exploring the actual care to and from elders require special surveys oriented toward family relations and/or elderly people. Even in places with thriving gerontological research such as North America and Europe, surveys having information on both help and living arrangements are limited. Ethel Shanas is often credited with pioneering some of this research as she was able to turn her study of American elders, the first national survey of which was in 1962, into a comparative study of growing old in three industrial countries with colleagues in Britain and Denmark (e.g., Shanas et al., 1968; see also Shanas, 1982, 1985). Among the chapters in a resulting book was one written by Jan Stehouwer (1968) on the “household and family relations of old people” in which he reported on informal assistance to and from children and siblings. He used information on geographic closeness as well as on coresidence in what was primarily a description of the situation they found at that time. That situation was for a surprisingly low level of assistance in Denmark, but for substantial assistance in both Britain and the United States (Stehouwer, 1968, p. 205). He also noted that people who had frequent contacts with their children were more likely to receive and give informal help that might go unreported despite concerted research attempts to record such help (Stehouwer, 1968, pp. 203-206).

More recent work in the United States has involved the U.S. National Survey of Families and Households (NSFH) (first conducted in 1987-1988 but followed by a second wave in 1992-1994 and currently in a third wave, see Sweet & Bumpass, 1996). One of the family issues covered was that of assistance to older parents. Few socioeconomic correlates were found, and few elders seemed to

² From <http://www.ilolim.org.pe/spanish/260ameri/publ/panorama/1999/anexo.shtml#cuadro8>.

reside with their adult children. For instance, Donna Hoyert (1991) used data on 1,550 elderly respondents from the first wave to explore “regular” financial and household assistance between adult children and their elderly parents. Including coresident parents, she found that 43% of the married fathers and 49% of the “previously married” fathers, received regular *household* (not financial) assistance from a child (*any* child, not only *nearest* child), and that proximity was important. She also found that 17% of the married fathers and 19% of the previously-married fathers received regular *financial* assistance but that, aside from coresidence, proximity was *not* important. She found that age was important insofar as being 80 or over was positively related to the receipt of assistance; that race was important for receipt of financial help but not household help; and that neither education, income, nor number of children seemed to have much relation to receipt of help of any kind.

David Eggebeen (1992) also explored intergenerational exchange among people with children aged 19 or older using NSFH data.³ Although he looked at such characteristics as age, education, race, number of children, and poverty status (instead of income), his focus was on family structure and he merely observed that “Most of these show little consistent relationship to exchanges” (p. 440). More importantly perhaps, he found little evidence of “routine” exchange when he considered *noncoresiding* aging parents. “Routine” did not seem well defined although Eggebeen contrasted it with help during crises, and he actually found almost three-quarters of his elders to have engaged in some sort of exchange, if not “routine” exchange.

In Europe, Jani-Le Bris (1993) recently pulled together findings from the study of family care of elders in 11 countries of the European community (Belgium, Germany, Denmark, France, Greece, Holland, Ireland, Italy, Portugal, and the United Kingdom) to observe that:

In all countries of the European Community most care and support for older people is provided by their family members, particularly spouses and daughters (1993, back cover).

At the same time, she observed that this often occurred although the generations did not live together. Social inequality was *not* an issue that she addressed, as her focus was on informal care.

One characteristic that the work of Stehouwer (1968), Hoyert (1991), and Eggebeen (1992) had in common was that they made significant use of a measure of the *distance* between the households of an elder and child. The idea was that while coresidence is not necessary for there to be significant intergenerational contact under current conditions in which e-mail, telephone, and modern transport make contact between separate households much easier than in the past, *proximity*

³ He considered assistance in terms of four dimensions: “monetary and material resources, child care, household assistance, and companionship and advice” (Eggebeen, p. 435).

can still be an important factor. Hoyert's (1991) categorization of distance was: 1) same house; 2) < 10 miles away; 3) 10-24 miles; 4) 50-149 miles; 5) 150-499 miles; and 6) 500+ miles.

Unfortunately, surveys covering the family life of elderly people in developing countries are still in their infancy (see also Andrews & Hermalin, 2000). For instance, we now know that roughly the same majority (~52%) of elderly people in Mexico have lived in extended family households at least since 1976 (Solís, 1999) but the situation *within* the household is unknown (but see Montes de Oca, 2001; Varley & Blasco, 1999). Issues such as relative power could differ while household composition stayed the same (Goldstein, Schuler, & Ross, 1983). There are some indications that the situation may be worse for old people in Mexico now than in the past (e.g., Bialik, 1992; Contreras de Lehr, 1992), but we do not know what the actual situation *was* in the past. For a good assessment of trends, we need data; and at least we can now provide a baseline with which the future situation can be compared.

The aims of this study then are to explore just how much assistance is actually received by older men in Mexico in the early 1990s, to assess the importance of coresidence for that help, and to assess the additional importance of demographic and socioeconomic characteristics for the informal receipt of help. Although incomplete by focusing only on the *receipt* of assistance by elderly Mexican men instead of both the giving and receiving of help, we can at least make a start.

THE STUDY

Data

This study uses 2,376 cases from Mexico's 1994 ENSE or National Socio-demographic Study of Aging survey of people 60 years and over.⁴ The survey was a two-stage cluster/stratified nationally-representative sample that used a sampling frame based on the 1990 census. Weights were constructed (and are used for the descriptives in this study) to make the sample nationally-representative. Although the law now uses age 65 as a benchmark for becoming eligible for a pension, there still is no generally accepted "old" age, and age 60 is often used to indicate the beginning of old age in developing countries. ENSE included people age 60 and over, whether or not they considered themselves "old" *per se*.

Although much of the information collected by ENSE is unique, several items did overlap with those of the 1990 census and could be checked for reliability or consistency, with possible consequences for the credibility of other items that could not be checked. A comparison of the 1994 ENSE and the 1% micro-data sample of the 1990 Census supported the idea that we indeed use a reasonable

⁴The entire sample had 5,159 cases of which 2,759 were women, 2,376 were men, and 24 had an unidentified gender.

sample. As the data reflect different years, there is bound to be some difference due to the time gap, but there is no way to easily adjust for this given that populations constantly risk mortality and that cohorts will be of different sizes, but the gap is slight and error ranges narrow. With this in mind, consider age for example. Both the Census and the Survey report some rather unrealistically high ages (when a person becomes rather old, she/he is tempted to exaggerate his/her age)⁵ but if age is grouped into five-year categories up to age 85 and if everyone 85 and older is grouped together, then we obtain a fairly realistic and consistent age distribution. Both ENSE and the Census report about a third of the elderly male sample to be 60-64 and the 65-69 age group to be between a fifth and a fourth, the Census being a little higher than ENSE. ENSE suggests that elderly men age 85+ comprise 6% of the sample whereas the Census sample suggests that the figure is 6.6%. Beside age, we could compare marital status, urban/rural residence, education, and work/pension status. In each case, distributions seemed similar. Further technical discussion of the questionnaire and sampling can be found in CONAPO (1994).

Beside covering many basic socioeconomic issues, ENSE had in-depth probes of work and retirement issues, family structure issues, assistance issues, health issues, and government-sponsored social security program issues. We focus here on the assistance issues. Respondents were asked about four kinds of *material* help (physical, domestic, in-kind, or money)⁶ in the previous month, asked to list persons who gave that assistance (the person's gender, age, marital status, relationship with the elder [e.g., spouse or child]), and asked to list how often the person gave that type of help.

There is much reason to be critical of limiting assistance to only four functions. Reciprocity items transcend those that are tapped and may span years or decades, not just a month; the potential for help may be as important as whether or not it actually occurs; and emphasis on day-to-day material functioning fails to tap potentially important less common or nonmaterial factors, including advice, emotional nurturance and care, or the special circumstances surrounding a crisis. Albert and Cattell wisely admonish (1994):

In a tradition that stretches back at least to Rousseau, theorists have recognized that the exchange of goods is not simply an economic fact, but is

⁵ In the 1990 census, 70 people out of 23,414 or .3% were listed as 100 or more years of age; three people were listed as 120 years of age. In the 1994 ENSE, three people out of 2,376 or .12% were listed as 100 or more years of age. One person was listed as 124 years of age.

⁶ Physical help included help with dressing, bathing, administering medicine, etc. Domestic assistance included such chores as shopping, managing money, cooking, cleaning house, etc. Financial assistance ranged from providing for the maintenance of a household to providing *vales*, coupon-like assets that are often used for groceries. In-kind assistance involved the provision of items that could otherwise involve the use of financial resources such as groceries or other household goods. Here, the questionnaire listed "*comida, despensa, viveres, mandado, etc.*" The terms are difficult to translate but roughly mean food (groceries), pocket money, household goods, gifts, etc.

rather a fundamental social relationship to which economic features can be variably appended (p. 141).

It is also possible that some respondents take certain assistance for granted and fail to report it even as others consider it noteworthy (see also Stehouwer, 1968).

Such reservations are not grounds for dismissing what information *does* exist, however. We must proceed as if the information can help establish the importance (or nonimportance) of receipt of material assistance in elders' lives, and the relation between living arrangements and receipt of such assistance.

We focus on the survey's of 2,376 male respondents who had information on the characteristics examined here because it is reasonable to compare our economic indicators across all men but it is not reasonable to use them to compare men and women. A major indicator reflects work status and pension status (1 = work, 2 = not work/not receive pension, 3 = not work/receive pension). But most married elderly women do not work outside the home. When they become widowed, many women receive only a paltry survivor's benefit, if they receive any pension at all. Thus, there are good reasons to expect the economic variable to reflect well the male situation but not the female situation. (Less importantly perhaps, our health (functionality) measure is not comparable either, as whether or not someone reportedly "can" do something often depends on whether it is considered "men's work" or "women's work.")

The decision to limit our study to elderly men was not an easy one. More Mexican elders tend to be women than men because Mexican women are more likely to survive their spouse than the other way around. They also tend to be more economically vulnerable than men. But since we needed to use survey measures of economic status (and health or functionality) that were more applicable to men than to women, we could only viably examine men. Even with good economic data for women, the correct modeling of the situation in a highly gender-stratified society with a sample that contained both males and females not only would be fraught with numerous problems, but would detract from, rather than enhance, our major focus on a relationship between living arrangements, socioeconomic characteristics, and the receipt of informal assistance. Hopefully, our study can provide ideas for a future study that does compare the situation among elderly men and elderly women.

The Sample

The ENSE data represent a national sample of Mexico's elderly men 60+ in 1994, with a mean age of 70 years. Over one-fifth were 70-74 years of age, and over one-quarter of the elderly men were 75 years or older (see Table 1). Most of the elderly men in our sample were still married/in union (76%) and had an average of five and a half (5.6) children. A quarter lived either alone or only with their spouse; another quarter lived in a simple family with one or more unmarried children; a third lived in an extended family household with one or more married

children; and roughly 18% lived in some other arrangement, usually with another relative. Roughly half lived in urban areas of 100,000 or more; and a third had little to no education while over half had a primary school education and roughly another tenth had more than a primary school education. Almost two-thirds (62%) had an income of less than 500 pesos a month and almost half (48%) were still working while another third (36%) neither worked nor drew a pension. When asked about their ownership of goods, a fifth (22%) reported having none while the rest had a house of questionable value. A majority (58%) functioned well, although a third had notable limitations and almost a tenth had at least one severe limitation.⁷ Our composite measure of functional limitation had over 1% (47) of its cases missing but, overall, missing cases was not an issue. See Table 1.

Assistance

The survey asked respondents 11 times each about four different kinds of help (financial, in-kind, domestic, and physical). We first tried to construct a continuous variable that combined all the answers for each kind of assistance,⁸ but the resulting distributions were highly skewed. We then summarized the amount of assistance in terms of never, a little, some and frequent⁹ (see Table 2). This showed us that most elderly men in Mexico in 1994, about three-fourths, received at least a little of one of these kinds of informal assistance in the preceding month. Different types of help could be from different people or the same people. Over half the respondents reported receiving in-kind or domestic assistance, 43%

⁷ At present, there is no standard way to measure health or functional limitation from a cross-national perspective. We tried to use, but modified, notions of Activities of Daily Living and Instrumental Activities of Daily Living as discussed by Katz, Ford, Mokowitz, Jackson, & Jaffe, (1963) and Lawton and Brody (1969). Thus severe limitations pertained to: a) moving around in the house; b) going to the toilet; c) bathing; d) dressing; e) transferring in and out of bed; and f) eating. Less severe (some) limitations were mainly related to mobility: a) exiting the house; b) walking on an incline; c) walking three blocks; and d) carrying heavy objects. If people denied having problems of either type, they were allocated a score of 0 or without a notable functional limitation. If they had problems of the second kind but not the first kind, they were allocated a score of 1. If they had limitations of the first kind, they were allocated a score of 2. This functional limitation scale seemed reasonable when juxtaposed with a self-rated scale of health (Cramer's $V = .36$) but somewhat preferable to it because it was based on supposedly objective measurement that could be replicated in other settings.

⁸ See note #6 for description of each type of assistance. For each type, the questionnaire asked: "In the last month, how many times did this person provide help . . . 1. Daily; 2. Every third day; 3. Twice a week; 4. Weekly; 5. Five times a month; 6. Monthly; 7. Less frequently; 8. Doesn't give this help." ["En el último mes ¿Cuántas veces esta persona le dió ayuda . . . ? 1. Diario; 2. Cada tercer día; 3. Dos veces a la semana; 4. Semanal; 5. Quincenal; 6. Mensual; 7. Menor frecuencia; 8. No dió."] Each of 11 answers were converted into days of help in the last month and then summed. Thus for instance, if someone provided daily assistance, that would be counted as 30. If a second person provided weekly assistance of the same kind, the amount of help would be allocated an additional 4.5. If a third person provided monthly assistance of the same kind, the amount of help would be allocated still an additional 1. Together, the score would then be 35.5.

⁹ A score of 30 or higher was considered "frequent." A score of 4-29 was considered "some." A score of 1-3 was "a little," and a score of 0 was "never."

Table 1. 1994 ENSE Male 60+ National Sample Characteristics—
Percentile Distributions

	Percent		Percent
Age		Urban/rural residence	
60-69	53.2	100,000+	46.9
70-74	21.4	<100,00	53.1
75-84	19.4	Education ^a	
85+	6.0	None	33.0
Marital status ^a		Primary	55.9
Married/In union	76.2	> Primary	11.1
Unmarried	23.8	(missing = 3 cases)	
(missing = 2 cases)		Individual monthly income	
Children		<500 pesos (< 150 U.S. dollars)	62.0
0	9.3	500+ pesos (150+ U.S. dollars)	38.0
1	6.1	Work/pension status	
2	8.7	No work/No pension	36.3
3	8.6	No work/Pension	15.6
4	9.3	Work	48.1
5	10.0	Goods	
6	10.1	None	21.6
7	10.3	Some	78.4
8	7.1	Functional limitations ^a	
9+	20.4	No limitations	57.2
Living arrangements ^a		Some limitation	32.0
Alone	5.7	Severe limitation	9.7
With spouse only	20.0	(missing = 47 cases)	1.1
With unmarried child	26.2	Sample size	2,376
With married child	30.5		
Other	17.6		
(missing = 1 case)			

Notes: Figures based on weighted counts. Construction and meanings of the variables are discussed in the text.

^a47 cases could not be coded for functional limitation; 3 cases did not have education information; 2 cases did not have information on marital status; and 1 case did not have information on living arrangements.

Source: Mexican ENSE 1994.

Table 2. Receipt of Assistance in the Last Month among Mexican Men 60+ (in Terms of Number of Times and Percentile Distribution)

	Type of assistance				
	Financial	Physical	In-kind	Domestic	Any
Number of times					
Mean	3.9	6.5	16.6	19.9	46.9
Minimum	0.0	0.0	0.0	0.0	0.0
Maximum	120.0	180.0	210.0	180.0	390.0
Percentile distribution					
Never	57.4	71.2	45.0	43.6	24.2
<4 times/month	19.8	11.9	6.5	3.4	6.3
4-29 times/month	17.0	3.2	7.3	4.9	11.6
30+ times/month	5.7	13.7	41.1	48.2	58.0
Total ^a	99.9	100.0	99.9	100.1	100.1

Notes: Figures based on weighted counts of 2,376 cases. See text for construction of variables.

^aMay not add to 100 because of rounding error.

Source: ENSE 1994.

received financial assistance, and even the least frequent help, physical assistance, was still received by over a quarter of the elders (29%). If we use the more demanding criterion of once a day on average, then we find that still over half the elderly men (58%) received assistance. Assistance with domestic chores especially was frequent. Since the major difference was between no help and any help however, we ended up using a bivariate variable for each kind of help in our multivariate analyses below.

Who provided assistance? One quarter of the sample—those that received no help in the preceding month—of course listed no one, but otherwise, over a third of the sample listed one helper, another fifth listed two helpers, and the remainder (about 17%) listed three or more helpers. Most helpers were either spouses or children (or grandchildren) although, notably, almost 10% were “others” such as siblings, domestics, or friends, either totally or in conjunction with spouse and/or children (see Table 3). Also notable was the fact that helpers were both male and female: males are important providers of monetary and in-kind assistance whereas females are important providers of domestic assistance. In circumstances in which the State shares a large part of the financial care of elders, much of the informal

Table 3. Relationship of First Three People Listed as Providing Help to 1994 Sample of Mexican Men 60+ Who Received Help— in Percents ($n = 1,730$)

Relationships	Percent
Spouse only	25.3
Spouse and child	18.2
Spouse and others	1.8
Spouse, child, and others	0.6
Children only	43.0
Children and others	2.3
Others only	8.8

Notes: Only men who received assistance are included. Figures based on weighted counts.

Source: Mexican ENSE 1994.

care that is left involves tasks that are typically performed by women, but substantial government financial contributions to elders was not usual in Mexico in 1994.

Method and Model

This study assesses the relationship between assistance receipt and living arrangements by estimating multivariate models that simultaneously examine and control for living arrangements, other demographic factors, and socioeconomic factors. Unfortunately, the data we have limit the characteristics we are able to study to those of the elder himself, though there is good reason to speculate that characteristics of other family members could be as, or even more, significant. We have already mentioned that we consider four kinds of assistance, which we put in binary form for the multivariate analysis. We also consider all of them together, constructing a fifth assistance variable for *any* kind of assistance (yes/no). Multivariate logistic regression is a good method for estimating a model with a binomial dependent variable and multiple independent or control variables. If the idea is that the receipt of material assistance is a function of proximity, kinship availability, functional limitation, and economic need, then our goal is to: 1) develop indicators for each of the factors; and 2) estimate the “effect” of each factor controlling for the others. Although an additive model makes sense for the most part, we also hypothesize that coresidence would be much more

important for an unmarried elderly man than for a married elderly man because a married man living only with a spouse could receive assistance from that spouse whereas an unmarried man might have to reside with others in order to attain the same level of well-being.¹⁰ That is, there may be an interaction.

Formally stated, we estimate for the receipt of each type of assistance (financial, physical, in-kind, domestic, and any) the model $Y = biXi + cW$ where Y is the likelihood of receiving a particular type of assistance (0 = no/1 = yes), bi are the logit coefficients for the Xi (see below), c is the logit coefficient for W and W is the interaction between marital status and living arrangements.¹¹

Although we use a statistical model that could be causal, here we treat it as predictive. Statistical “effects” here are actually indicative of predictive relationships. While no one can change his age or fertility after the fact, residence and/or employment (two independent variables discussed more below) can be affected as much by the potential for help as the other way around even if we model them as independent variables. It is not clear, for instance, that people do not move from small to large urban areas primarily to be close to children who can help them. It is not clear that men would not stop working if they did not know that they had a good pension or that children would provide assistance. We try to keep this in mind when interpreting our findings.

The Independent Variables

A major variable of interest is *living arrangements* or household composition. Household composition can be indicated in a variety of ways but we choose a comparative scheme that partly reflects an elderly person’s life-course stage (see, e.g., Shanas et al., 1968). Those stages are living independently (solitary, if unmarried; with spouse only, if married), living with a never-married child, living with a married child, or something else (often living with a sibling but not an own child). Before taking other factors into account, we can see from the figures in Table 4 that receiving assistance was modestly related to living arrangements, with Cramér’s V ¹² generally in the teens. For instance, only 32% of the elders

¹⁰ Actually, in previous work we looked at the possibility that there were other interactions, both between marital status and other variables, and between items such as work status and other variables. See the related Working Paper, including its Appendix, for more detail. We found, however, that the major interaction of significance was that between living arrangements and marital status, and include that here. Our main conclusion was that we needed a larger sample size to have more definitive findings.

¹¹ Mention is in order as to the interaction terms because it is easy to misinterpret them. The “zero-order” coefficients refer to the effect within the absent category of the other variable. The interaction coefficients refer to the difference (or addition) between the effects of the omitted and included category of the other variable. Thus, to assess the coefficients among the included category, it is necessary to add the “zero-order” coefficient and the interaction coefficient.

¹² A measure of association based on Chi squared and generally lower than the Contingency Coefficient. See note for Table 4 for technical definition.

Table 4. Percent Receiving Various Types of Help by Living Arrangements among Mexican Men 60+, 1994

Living arrangement	Type of help				
	Financial assistance	Domestic assistance	In-kind assistance	Physical assistance	Any assistance
Alone or With spouse only	31.9	50.8	49.4	22.2	68.8
With unmarried child	45.7	55.9	48.4	23.8	75.1
With married child	52.0	58.7	60.3	35.6	80.6
With others	37.1	61.4	63.6	33.9	78.8
Cramér's V ^a	0.16	0.08	0.13	0.13	0.11

Notes: Cramér's V is a measure of association for nominal variables based on χ^2 . It is $\sqrt{(\chi^2/Nt)}$ where t is the smaller of either # rows-1 or # columns-1 (Loether and McTavish, 1974: 197-198). A V of over .1 is modest, a V of over .2 is moderate, and a V of over .3 is noteworthy.

Source: Calculations from the 1994 Mexican ENSE ($n = 2,375$).

who lived independently (either alone or with a spouse only) reported receiving financial assistance compared with 52% of those who lived with a married child, reflecting a Cramér's V of .16. Only half of those who lived independently received domestic assistance compared with 61% of those who lived with others beside a spouse or child, reflecting a Cramér's V of .08. In-kind assistance was also greater for men who lived with "others" rather than with children or independently ($V = .13$) while the receipt of physical assistance was greatest among men who lived with married children ($V = .11$).

Other demographic characteristics are age, number of children, and marital status. *Age* helps indicate the survivorship and life-course stage of adult children who have different responsibilities and resources at different times in their lives. When elders are relatively young, their children may still be never-married, still in school, and still at home. While they may be in a good position to help their parents, they may still expect net flows of assistance to be in their direction rather than the reverse. When elderly parents are somewhat older, their children may be caring for small children of their own and have few resources to extend to others. However, their children may reside with their elderly parents to facilitate help *from* them and, in turn, would be especially available to provide informal

help. When parents are older still, their own adult children may be in a better place of their own from which to help but may also have established residences of their own. Age can also help indicate factors such as functional limitation that are not captured by our more direct indicator of that characteristic.

We also expect the likelihood of receiving help to be greater if the elder has more *children* because even if the average amount of help given per child were less than in other instances, the total amount of help could be more. In addition, the likelihood that at least one child would provide major assistance would be greater if there were more children. Finally, *marital status* helps indicate whether the functional unit is one or two people. In Mexico, conjugal units usually maintain separate living quarters and a sense of independence. A married man is apt to receive more care than were he unmarried, as his spouse may be more attuned to his needs than other people.

Health impinges on a person's ability to work and may also require that others provide physical assistance. Here, we use a measure of *functional limitation* based on supposedly-objective answers to questions about the ability to perform certain tasks (see footnote #7 for detail). We tried to use answers to questions that were not biased by issues of sex-typing of functions (such as doing light housework) but questions are inevitably unequally suitable for both men and women when sex-typing of functions is common (e.g., how should one consider "able to carry heavy objects?").

We use three economic variables, *economic activity* (whether the man was employed and/or receiving a pension), *income*, and *goods (bienes)*. A person who is employed may well be in a position to provide help, not *be* provided help, while someone who is neither working nor receiving a pension is likely to be in the most need of at least financial and in-kind help. By itself, one might also expect that higher income would be associated with less need for informal care of any kind. Finally, a major good owned by almost four-fifths of the sample was a house of questionable value that could, theoretically, be lived in by relatives including married children.¹³ Such ownership could foster assistance *if* bequeathing resources is tied to the provision of assistance.

Two major social variables that have an indeterminate relation to assistance but that need to be considered are *education* and *location size* (1-99,999; 100,000+) (see also Martin & Kinsella, 1994). Both characteristics help indicate someone's exposure to a changing, increasingly urban, world. Education may also be one of the clearest indicators we have of social status and, like income, may indicate less need for assistance. Other research on this issue has not found education to be important, however (De Vos, 1990). Elders in smaller areas tend

¹³The questionnaire listed *bienes* or goods as: 1) *casas, departamentos y/o terrenos* (houses, apartment buildings, and/or land); 2) *vehiculos* (vehicles); 3) *ahorros o inversiones* (savings or investments); 4) *otros* (other), and/or 5) *ninguno* (none). Categories 1-4 were reclassified as "any" and category 5 was classified as "none" to make a binomial variable.

to be more in need of assistance but may also be farther away from children who might provide care.

RESULTS

Since most of the factors affected one or another type of help differently, we discuss each type of help separately. The major exception is that education was *never* important after controlling for income, work-pension status and the ownership of goods. Results are summarized in Table 5.

Financial Assistance

Of all the possible characteristics investigated for helping us to predict whether an elderly man received financial assistance, the ones found to be statistically significant were living arrangements, number of children, economic activity, income, the ownership of valuables, and location size. Neither age, marital status, functional limitation, nor education by themselves had any predictive power (see Table 5). As for living arrangements, what appeared important was not whether someone lived alone or only with unmarried children, but whether someone lived with married children or “others” (typically a sibling or other relative). And as expected, the number of children was positively associated with the receipt of financial assistance. So was living in a more populated location, income, and the ownership of valuables (primarily a house). Working status seemed to matter only for retired men not receiving a pension, who were more likely to obtain financial assistance than workers or pensioners.

Physical Assistance

Whether an elderly man received physical assistance was a function of age, living arrangements, and health but not of marital status, number of children, education, location size, economic activity, income, or the ownership of goods. For living arrangements, receiving physical assistance seemed most positively related (compared with living alone) to living with people other than children, and somewhat related to living with unmarried children. There seemed to be little difference in receiving physical assistance whether the elder lived alone or with married children (see Table 5). The findings made sense, and are in clear contrast to the situation for financial assistance in which neither age nor functional limitation had any effect but economic variables did, number of children did, and living with married children was important but living with unmarried children was *not* important. We emphasize that marital status did not matter.

In-Kind Assistance

Receiving in-kind assistance is a very common form of assistance that is nonetheless difficult to measure accurately because it includes a wide range of items, from groceries to non-essential luxury items. Still, the variable we use seems to tap into the basic situation well. According to our model, age, marital status, living arrangements, functional limitations, and work/pension status were all important predictors for receiving in-kind assistance, while number of children, education, location size, income, and the ownership of goods were not (see Table 5). That is, receiving in-kind assistance would seem intermediate to the receipt of financial assistance and physical assistance in some ways. For instance, having functional limitations was an important predictor of receiving in-kind assistance, as it was for the receipt of physical assistance but not for the receipt of financial assistance. On the other hand, economic activity was an important predictor of receiving in-kind assistance, as it was for the receipt of financial assistance but not for the receipt of physical assistance.

Unlike the receipt of either financial or physical assistance, however, we found an interaction between the effects of living arrangements and marital status on the receipt of in-kind assistance (see Table 5). Among unmarried elderly men, coresidence significantly increased the likelihood of receiving in-kind assistance, when compared to living alone. Among married elderly men, however, as the interaction terms were all negative, the actual differences in receipt of in-kind assistance between couples living alone and those coresiding with others were much smaller and likely not significant. Similarly, being married was related to a much greater likelihood of receiving in-kind assistance among people who lived alone (either with a spouse or totally alone).

Domestic Assistance

Findings for the receipt of domestic help were the most complicated of all. Almost all indicators in the model—barring education, location size, and economic activity—were found to be significant predictors, and usually in the expected way (see Table 5). For instance, the likelihood of receiving domestic assistance was greater among men 85 or more years of age than among younger men. It was greater if someone had severe functional limitations. As with the receipt of in-kind assistance, the effect of living arrangements depended on marital status and the effect of marital status depended on living arrangements. Living arrangements was important among unmarried men but not among married men. Among unmarried men, the likelihood of receiving domestic assistance was greater if the man lived with others rather than alone. Likewise, the likelihood of receipt was greater for married than unmarried men if they lived alone or only with a spouse, but marital status was not otherwise important.

However, receipt of domestic assistance was opposite the situation regarding in-kind assistance in terms of the economic indicators, and unique in terms of its

Table 5. Logistic Regression of Different Types of Help on Various Characteristics (unweighted) among Mexican Men 60+ in 1994 (Statistical Significance is Estimated for the Entire Variable in Addition to Individual Contrasts if There is More than One Contrast)

	Type of help									
	Financial		Physical		In-Kind		Domestic		Any	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
Age (85+ is omitted)			**		*		*			
60-69	-0.08	(0.20)	-0.72**	(0.21)	-0.45*	(0.21)	-0.61**	(0.21)	-0.46	(0.27)
70-74	-0.03	(0.21)	-0.62**	(0.22)	-0.48*	(0.22)	-0.64**	(0.22)	-0.30	(0.28)
75-84	0.17	(0.21)	-0.30	(0.21)	-0.22	(0.21)	-0.46*	(0.22)	-0.22	(0.28)
Marital status (1 = married, 0 = unmarried)	0.09	(0.23)	0.27	(0.27)	0.81**	(0.22)	1.16**	(0.23)	0.95**	(0.22)
No. of children (0-9+)	0.07**	(0.02)	-0.01	(0.02)	-0.03	(0.02)	-0.04**	(0.02)	0.01	(0.02)
Living arrangements (Alone/Couple only is contrast)	**		**		**		**		**	
With unmarried child(ren)	0.30	(0.26)	0.61*	(0.29)	1.19**	(0.25)	1.39**	(0.26)	1.32**	(0.27)
With married child(ren)	0.81**	(0.31)	0.22	(0.38)	0.66*	(0.30)	1.17**	(0.31)	0.96**	(0.32)
With other (mainly relatives)	0.80**	(0.26)	1.06**	(0.29)	1.32**	(0.25)	1.39**	(0.26)	1.56**	(0.28)
Functional limitations (severe limitations is contrast)			**		**		**		**	
No limitations	-0.22	(0.17)	-1.75**	(0.17)	-0.50**	(0.17)	-0.60**	(0.17)	-0.88**	(0.24)
Some limitation	-0.004	(0.17)	-1.01**	(0.17)	-0.20	(0.17)	-0.60**	(0.17)	-0.64**	(0.24)
Education (more than primary is contrast)										
None	0.34*	(0.18)	-0.16	(0.20)	0.19	(0.17)	0.39*	(0.17)	0.41*	(0.18)
Primary	0.39*	(0.16)	-0.04	(0.18)	0.17	(0.15)	0.31*	(0.15)	0.27	(0.16)

Location size (0 = <100,000; 1 = >100,000)	0.23*	(0.10)	0.14	(0.11)	0.10	(0.09)	-0.15	(0.09)	-0.03	(0.11)
Work/Pension status (no work/pension is contrast)	**				**				**	
No work/No pension	0.99**	(0.14)	0.18	(0.16)	0.36*	(0.11)	0.09	(0.14)	0.69**	(0.16)
Working	0.04	(0.14)	-0.11	(0.16)	-0.08	(0.14)	0.02	(0.14)	0.12	(0.15)
Income (0 = <500P/1 = 500+P)	0.21*	(0.10)	-0.13	(0.11)	-0.14	(0.10)	0.29**	(0.10)	0.16	(0.11)
Goods (0 = no/1 = yes)	0.40**	(0.11)	0.15	(0.12)	0.19	(0.11)	0.40**	(0.11)	0.56**	(0.12)
Living arrangements*Marital status					**		**		**	
With unmarried child	0.08	(0.32)	-0.26	(0.36)	-1.23**	(0.31)	-1.22**	(0.31)	-1.08**	(0.33)
With married child	-0.18	(0.34)	-0.04	(0.41)	-0.85*	(0.33)	-1.04**	(0.34)	-0.77*	(0.35)
With other	-0.15	(0.29)	-0.64	(0.33)	-1.11**	(0.28)	-1.12**	(0.29)	-1.04**	(0.32)
Constant	-2.34**	(0.38)	0.29	(0.42)	-0.21	(0.37)	-0.71	(0.38)	-0.13	(0.44)
Model χ^2 significance	<.0001		<.0001		<.0001		<.0001		<.0001	

Notes: $n = 2,325$ (47 cases that could not be coded for functional limitation, 3 cases that did not have education information, 2 cases that did not have information on marital status, and 1 case that did not have information on living arrangements [sometimes overlapping] were excluded from the analysis that started with 2,376 cases.) Residence was recorded to be a place with more or less than 100,000 people. Age categories were recoded to be 60-69, 70-74, 75-84 and 85+. Estimates are not based on weighted cases.

*Probability < .05. **Probability < .01.

Source: Mexican ENSE 1994.

relation to number of children. For the receipt of in-kind assistance, economic activity (especially pension receipt) was important but neither income nor the ownership of goods had any predictive value. In contrast, for the receipt of domestic assistance, economic activity was *not* important but income and the ownership of goods *were* important. Whereas the number of children a man had was positively related to the likelihood that he received financial assistance and had no relation to the receipt of either physical assistance or in-kind assistance, number of children had a strong negative relationship with the likelihood of receiving domestic assistance. This is difficult to understand. (Maybe some domestic assistance goes unreported if there are many children?)

Any Assistance

If we combine the four types of assistance together, we can view whether our model makes sense for the receipt of *any* of that assistance (see Table 5). We find that living arrangements, marital status, functional limitations, economic activity, and the ownership of valuables are all important but that age, number of children, education, location size, and income are not. Furthermore, the effect of marital status depends on living arrangements and vice versa. Among unmarried men, living with others, especially people other than own children, is positively related to the likelihood of receiving assistance. Among married men, living arrangements makes much less of a difference but was still related to the likelihood of receiving assistance. Also, as might be expected, the likelihood of receiving assistance was negatively related to the absence of functional limitations, and it was significantly greater if the elderly man did not work nor receive a pension. Curiously, it was positively related to the ownership of goods (usually a house), again suggesting that the prospect of inheriting something helped motivate assistance.

DISCUSSION

What might we say about informal material support received by elderly Mexican men age 60 and over in the mid 1990s, and/or about how well that support can be captured by information on living arrangements, demographic characteristics, or socioeconomic characteristics? At least something. For instance we can say that most men received some kind of informal material support in the month previous to the 1994 survey. About half the men received in-kind or domestic assistance, roughly two-fifths received financial assistance, and a little more than a quarter received physical assistance. This was the case even as almost half of the men were still working, over half (57%) had no discernable functional limitation and over a quarter still lived in simple family households with unmarried children. As for the other factors:

Living Arrangements

Living arrangements were always important for the receipt of help, but differently for different kinds of help and for married vs. unmarried elderly men, even after controlling for other factors. For the receipt of financial and physical assistance, those who lived with children or other relatives tended to receive more assistance regardless of whether they were married or not. For the receipt of in-kind, domestic, or any help, residence with others was positively related to the likelihood of receipt among unmarried men but less so among married elders.

One can reason that coresidence is a *form* of assistance because people are nearby to lend help if it is needed, and people can also help out with the cost of housing. Of people receiving financial assistance, somewhat under half of them received such assistance from co-residing relatives; of people receiving physical or in-kind assistance, almost two-thirds of them received such assistance from a co-residing relative; and of people receiving domestic assistance, almost three-fourths of them received such assistance from a co-residing person.

In fact, in Mexico, the nuclear family is considered the natural arrangement (Bridges, 1980; Nutini, 1976; Weil, Knippers Black, Blutstein, Johnston, & McMorris, 1982). When children marry, they generally leave the parental home, even if it is to settle right next door. There remains a strong intergenerational bond that traditionally may have been quite close geographically but under modern conditions may be farther afield. This returns us to Hoyert's (1991) assertion that her findings were consistent with the notion of a modified extended family in the United States. She averred that while helpful, coresidence was not necessary for there to be significant exchanges between relatives. Rather, coresidence was considered one extreme of a continuum of geographic distance ranging from more than 500 miles away down, in increments, to living in the same house. This idea of a modified extended family would probably be helpful for trying to understand family relations in a modernizing Mexico as well.

Socio-Economic Factors

The importance of socioeconomic factors for assistance was puzzling. On the one hand, there was no straightforward relationship between the receipt of assistance by elderly Mexican men and education or location size. This should actually come as little surprise as there are potentially contradictory effects of each of the characteristics that have made the various effects different in different countries worldwide (see De Vos & Palloni, n.d.). More education could help indicate the existence of more community ties with which to procure needed assistance, but it could also help indicate better knowledge of how to stay healthy and in less need of help from others. And although family ties might seem stronger

in smaller areas, the transportation of would-be helpers may be much easier in larger locations.

On the other hand, income, the ownership of property, and economic activity were all important, if in different ways. Income did not have a relationship with whether an elderly man received *any* kind of assistance, nor was it related to in-kind assistance or physical assistance but income was related to the receipt of financial assistance and the receipt of domestic assistance. Alternately, the ownership of property (such as a house) had a relationship with the receipt of *any* assistance, financial assistance and domestic assistance but it did not have a relationship with the receipt of either physical assistance or in-kind assistance. Finally, economic activity, whether the man worked or received a pension, *did* have an effect on the receipt of *any* assistance, financial assistance, and in-kind assistance, but not on the receipt of either physical assistance or domestic assistance. When economic activity was important, there was generally little difference between working and not working/getting a pension, but there was a significant difference between not working/getting a pension and not working/not getting a pension, the latter characteristic leading to much more assistance.

How does this impact public policy? Mexico made major changes to its pension laws in both 1992 and 1997 (Barrientos, 1997). All workers entering the labor force after January 1, 1997 are, in theory, covered. During the transition period, people are able to choose between the old and new systems. But the change will not affect elders in the near future as workers are expected to be enrolled for 1250 weeks (USSSA, 1999). Nor is the scheme compulsory for workers in the “informal” economy (rural, self-employed, or those involved in unregulated labor relationships). Currently, roughly 45% of the population is believed to be linked to the informal sector (Cochran, 1996). Recent projections suggest that this proportion will not change significantly in the next 50 years (Ham Chande, 1999). Thus, a significant proportion of future Mexican elders will still need to be part of an informal assistance network.

As for the ownership of goods, primarily a house, we would like to think that the future inheritance of goods would not affect whether or not a person provided assistance to an elderly relative, but our findings suggest this may in fact be the case, especially when it comes to financial assistance or domestic assistance (see also Montes de Oca, 2001).

Demographic Factors

Surprisingly, two demographic characteristics that failed to have a relationship with the receipt of *any* assistance were age and number of living children. We found this surprising because we had expected that older elders would receive significantly more assistance than younger elders, and that those with

more children would receive more assistance than those with fewer children. We *did* also measure functional limitation and marital status separately however, and once these characteristics were taken into account, we might have expected that age would not have an independent effect. After all, one attempts to measure more directly the characteristics that age might try to indicate in their absence.

More puzzling is the negative finding regarding number of children. Overall, number of children had no effect on the likelihood of receiving *any* assistance or three of the four specific types of assistance. For financial aid only, number of children *was* positively associated with the likelihood of receiving assistance. The finding regarding financial help, and the finding that much of that assistance was received from noncoresiding kin, suggests that remuneration from migrant kin was probably important but that migrants would not be able to provide other kinds of help. This is an example of how information on geographic proximity would greatly assist our understanding of the situation.

CONCLUDING REMARKS

Mexican society is in the midst of radical changes, among them an aging population and major changes in the proximity of kin who could lend informal support to elderly family members. The main goals of this study were to provide a baseline for future study while obtaining an idea of the informal material support received by elderly Mexican men age 60 and over in the mid 1990s, and an idea of that support's relation to living arrangements, demographic characteristics and to socioeconomic factors.

We found that roughly three-quarters of the men surveyed received in-kind, domestic, financial, or physical assistance in the month previous to the 1994 survey. This was so even as many of the men were still working, had no discernable functional limitation and were still living in simple family households with unmarried children. In general, receiving various kinds of assistance was more likely if elderly men resided with others, but coresidence was not necessary to receive assistance, especially financial assistance. Also, perhaps reflecting Mexico's segmented social conditions, factors related to such items as income, work/pension status, and the ownership of property were found to be important for informal assistance of different kinds even after controlling for living arrangements.

If living in an extended family household were synonymous with receiving help, then there should have been no independent effect of any other factor. Instead, it would appear that the family was providing major care for elderly men, even from afar, and that such care was more likely if the elder was neither working nor receiving a pension, had little income, and/or had some property (such as a house) to ultimately transfer to another generation. Mexican pension law has been radically changed recently and we could expect that in the future

more elderly men who do not work will be receiving pensions, but many people still fall outside the formal sector and will continue to need informal assistance of different kinds.

A measure of distance (in terms of miles and/or minutes) in which co-residence is only one end of a continuum would greatly enhance our ability to more fully understand a situation in which a modified extended family is probably operating. Our study was also limited to looking at the *receipt* side of what is in fact a two-sided process of *exchange* of assistance. A third major limitation of the study was that we could not include elderly Mexican women although they are even more economically vulnerable than elderly Mexican men. The problem was that some of our key measures were not applicable for women. Hopefully, future research will address such limitations with indicators and samples that will enable a fuller exploration into the nature of assistance in elderly Mexicans's extended families.

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REFERENCES

- Albert, S. M., & Cattell, M. G. (1994). *Old age in global perspective*. New York: G. K. Hall & Co.
- Andrews, G. R., & Hermalin, A. I. (2000). Research directions in ageing in the Asia-Pacific region. In D. R. Phillips (Ed.), *Ageing in the Asia-Pacific Region* (pp. 51-81). London & New York: Routledge.
- Barrientos, A. (1997, December). The changing face of pensions in Latin America: Design and prospects of individual capitalization pension plans. *Social Policy & Administration*, 31(4), 336-353.
- Bengston, V., Rosenthal, C., & Burton, L. (1990). Families and aging: Diversity and heterogeneity. In R. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (3rd ed., pp. 263-287). San Diego, New York, Berkeley, Boston: Academic Press.
- Bialik, R. (1992). Family care of the elderly in Mexico. In J. I. Kosberg (Ed.), *Family care of the elderly: Social and cultural changes* (pp. 31-46). Newbury Park, London, New Delhi: Sage Publications.
- Bridges, J. C. (1980). The Mexican family. In M. S. Das & C. J. Jessor (Eds.), *The Family in Latin America* (pp. 295-333). New Delhi: Vikas Publishing House.
- CONAPO y DIF (Consejo Nacional de Población y Desarrollo Integral para la Familia). (1994). *Encuesta Nacional Sobre La Sociodemografía del Envejecimiento en Mexico. Resultados*. Mexico: CONAPO.
- Cochran, N. (1996). When goals diverge: Social security reform in Mexico. *LBJ Journal of Public Affairs*. Available: <http://uts.cc.utexas.edu/~journal/1996/cochran.htm>.

- Contreras de Lehr, E. (1992). Aging and family support in Mexico. In H. L. Kendig, A. Hashimoto, & L. C. Coppard (Eds.), *Family support for the elderly: The international experience* (pp. 215-223). Oxford, New York, Tokyo: Oxford University Press.
- Cooley, C. H. (1909). *Social organization; A study of the larger mind*. New York: Scribner's Sons.
- Davis, K. (1948). *Human society*. New York: Macmillan.
- De Vos, S. (1990). Extended family living among older people in six Latin American countries. *Journal of Gerontology: Social Sciences*, 45(3), S87-S94.
- De Vos, S., & Palloni, A. (n.d.). *Living arrangements of elderly people around the world*. Paper prepared for the UN Population Division.
- De Vos, S., Solís, P., and Montes de Oca, V. (2001). *Receipt of instrumental assistance and extended family residence among elders in Mexico*. Working Paper 2001-18, Center for Demography and Ecology, University of Wisconsin-Madison.
- Dowd, J. J. (1975). Aging as exchange: A preface to theory. *Journal of Gerontology*, 30(5), 584-594.
- Edgebeeen, D. J. (1992, December). Family structure and intergenerational exchanges. *Research on Aging*, 14(4), 427-447.
- Goldstein, M. C., Schuler, S., & Ross, J. L. (1983). Social and economic forces affecting intergenerational relations in extended families in a third world country: A cautionary tale from south Asia. *Journal of Gerontology*, 38, 716-724.
- Habib, J. (1988). Aging population structure and support for the elderly. In United Nations Department of International and Social Affairs (Ed.), *Economic and social implications of population aging* (pp. 194-226). New York: United Nations.
- Ham Chande, R. (1999). Promesas Fáciles de Difícil Cumplimiento. *Demos*, 12, 35-36.
- Hanratty, D. M. (1997). The society and its environment. In T. L. Merrill & R. Miró (Eds.), *Mexico: A country study* (pp. 77-140). Washington, DC: Government Printing Office.
- Hoyert, D. L. (1991, June). Financial and household exchanges between generations. *Research on Aging*, 13(2), 205-225.
- Jani-Le Bris, H. (1993). *Family care of dependent older people in the European community*. Luxembourg: Office for Official Publications of the European Community.
- Katz, S., Ford, A. B., Moskowitz, R. W., Jackson, B. A., & Jaffe, M. W. (1963, September 21). The index of ADL: A standardized measure of biological and psychosocial function. *Journal of the American Medical Association*, 914-919.
- Lawton, M. P., & Brody, E. M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *Gerontologist*, 9, 179-186.
- Lima, J. C., & Goldscheider, F. (2001). *To independence or an institution? The decline in family living of the non-married elderly: 1950-1990*. Population and Studies Training Center, Brown University. Paper presented at the Population Association of America, Washington, D.C.
- Litwak, E. (1960, June). Geographic mobility and extended family cohesion. *American Sociological Review*, 25(3), 385-394.
- Litwak, E. (1965). Extended kin relations in an industrial democratic society. In E. Shanas and G. F. Streib (Eds.), *Social structure and the family: Generational relations* (pp. 290-323). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Loether, H. J., & McTavish, D. G. (1974). *Descriptive statistics for sociologists* (pp. 197-198). Boston: Allyn and Bacon, Inc..

Martin, L. G., & Kinsella, K. (1994). Research on the demography of aging in developing countries. In L. G. Martin & S. H. Preston (Eds.), *Demography of aging* (pp. 356-403). Washington, DC: National Academy Press.

Montes de Oca, V. (2001, March). *Informal supports and welfare for elder adults in Mexico*. Paper presented at the Annual Meetings of the Population Association of America, Washington, D.C.

Nugent, J. B. (1990). *Old age security and the defense of social norms*. *Journal of Cross-Cultural Gerontology*, 5, 243-254.

Nutini, H. G. (1976). Introduction: The nature and treatment of kinship in Mesoamerica. In H. G. Nutini, P. Carrasco, & J. M. Taggart (Eds.), *Essays on Mexican kinship* (pp. 3-27). Pittsburgh: University of Pittsburgh Press.

Palloni, A., De Vos, S., & Pelaez, M. (1999). *Aging in Latin America and the Caribbean*. CDE Working Paper 99-02, Center for Demography and Ecology, University of Wisconsin.

Shanas, E. (1982). *National survey of the aged*. Prepared for Administration on Aging. U.S. Department of Health and Human Services. U.S. Government.

Shanas, E. (1985). *National survey of the aged (United States), 1962*. Ann Arbor, MI: Inter-University Consortium for Political and Social Research.

Shanas, E., Townsend, P., Wedderburn, D., Firis, H., Milhoj, P., & Stehouwer, J. (Eds.) (1968). *Old people in three industrial societies*. New York: Atherton Press.

Simmel, G. (1902, July). The number of members as determining the sociological form of the group. *American Journal of Sociology*, VIII, 1-46, 158-196.

Solís, P. (1999, March). *Living arrangements of the elderly in Mexico*. Paper prepared for presentation at the 1999 PAA Meetings.

Stehouwer, J. (1968). The household and family relations of old people. In E. Shanas, P. Townsend, D. Wedderburn, H. Firis, P. Milhoj, & J. Stehouwer (Eds.), *Old people in three industrial societies* (pp. 177-226). New York: Atherton Press.

Sweet, J. A. and Bumpass, L. L. (1996). *The National Survey of Families and Households—Waves 1 and 2: Data description and documentation*. Center for Demography and Ecology, University of Wisconsin-Madison. Available:

<http://www.ssc.wisc.edu/nsfh/home.htm>), and/or <http://www.ssc.wisc.edu/nsfh/>

United Nations (2001). *World population prospects, the 2000 revision*. New York: United Nations.

United States Social Security Administration (1999). *Social Security programs throughout the world*. Pittsburgh, PA: Government Printing Office.

Varley, A., & Blasco, M. (1999). Reaping what you sow? Older women, housing and family dynamics in urban Mexico. In International Research and Training Institute for the Advancement of Women (INSTRAW) (Ed.), *Ageing in a gendered world: Women's issues and identities* (pp. 153-178). Santo Domingo, Dominican Republic: United Nations.

Weil, T. E., Black, J. K., Blutstein, H. I., Johnston, K. T., & McMorris, D. S. (1982). *Mexico: A country study* (2nd ed.). Government Printing Office: Department of the Army.

Wilmoth, J. M. (2000, February). Unbalanced social exchanges and living arrangement transitions among older adults. *The Gerontologist*, 40(1), 64-74.

Worobey, J. L., & Angel, R. J. (1990). Functional capacity and living arrangements of unmarried elderly persons. *Journal of Gerontology: Social Sciences*, 45(3), S95-S101.

Zúñiga, E., & Hernández, D. (1994). Importancia de los hijos en la vehez y cambios en el comportamiento reproductivo (Estudio en tres comunidades rurales de México). *Estudios Demográficos y Urbanos*, 9(1), 211-236.

Direct reprint requests to:

Susan De Vos, Ph.D.
Center for Demography of Health and Aging
Department of Sociology
4412 Social Sciences Building
University of Wisconsin, Madison
Madison, WI 53706
e-mail: devos@ssc.wisc.edu