Family Intergenerational Transfers to Provide Long-Term Care:
Why Do Families Differ from Each Other?

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Intergenerational transfers occur within a family context, but most research on the topic focuses on the attributes and behaviors of individuals in the family matrix and not on family environment itself. While family characteristics, such as size or composition, are often examined, they are seldom conceptualized in the broader context of a family culture or family environment that defines each family's variant on the norms of kinship. Yet, aspects of family culture may define notions of obligation, expectation, and responsibility that distinguish the transfer behaviors of one family from another and define the environment within which individuals act. Layering notions of shared family traits onto more conventional measures of individual kin is likely to yield new sociological insight into why similarly-configured families differ in their kin exchange behaviors or why individual characteristics have variable effects across families.

Earlier research typically used a fixed-effects modeling approach to address a broad range of donor or recipient selection issues, such as which adult child provides parent care (e.g., Henretta *et al*. 1997). But a fixed-effects model holds constant the unique family context in which choices are made. While some family attributes are stable over long periods of time, such as ethnicity or early life "demonstrations" of kin obligation and responsibility, others change slowly as members of the family network experience life-cycle transitions. By capturing the dynamics of change for multiple family members over multiple waves of observation, we gain analytic leverage to consider how the relationship between transfer behavior and within-family change depends on the within-family culture of obligation and caring.

In this paper, we examine the effect of family transfer culture on adult children's provision of ADL and IADL help to their elderly mothers. The family transfer culture is measured by characteristics of family exchanges in previous generations. We utilize two

measures of previous family exchanges: 1) whether the elderly mother's family received help from family members when she was growing up; and 2) whether the elderly mother lived with her grandmother when she was growing up.

Conceptual Background

The study of intergenerational family transfers has a long tradition in both sociology and economics. Over at least the last decade, the two disciplines have attempted, largely in parallel, to develop a generalizable micro-framework for understanding intergenerational transfers, acknowledging both the exigencies of potential recipients and the resources of possible donors. Sociologists and economists are increasingly fashioning more complex and realistic models of how a given donor selects a recipient from the pool of possible recipients or how a given helper is recruited from the pool of possible donors. The former issue is fundamentally a multi-generational resource allocation problem (e.g., Kuo and Hauser 1996; Soldo, Wolf and Henretta 1999; McGarry and Schoeni 1997; Borsch-Supan et al.1992) while the latter is a division of labor problem among multiple possible donors (e.g., Stern 1995; Wolf et al. 1997; Henretta et al. 1997).

Sociologic and economic perspectives on intergenerational transfers are increasingly informed by analyses which take into account attributes of potential donors and recipients as predictors and dyadic transfers of various types among extended family members as outcomes. Panel estimates of such models are far superior to those based on cross-sectional data because actual change in probable triggers, notably transitions in marital, health, or financial status, are observed within families rather than inferred from cross-family differences. Of particular interest are studies concerned with why family transfer systems emerge and how they are nurtured. Theories of social exchange require efforts to understand why families differ in their shared orientation to intergenerational obligations or reciprocities. Often times fixed-effects models are interpreted as suggesting the power of "unobserved family heterogeneity" with respect to such within family differences. But to move the agenda on intergenerational transfers requires efforts in two areas: 1) developing and evaluating actual measures of collective family orientation such as those implied by the "demonstration" hypothesis and generalized exchange theory, and, 2)

considering family transfers in dynamic models which incorporate both fixed and varying attributes of individuals and the family as a whole.

The two disciplines have addressed the issue of family differences in distinct but parallel conceptual ways. Economists have only recently begun to consider the mechanisms which sustain intergenerational transfer systems. In economies with poorly developed capital markets (such as those in Mexico, Italy, and SE Asia), family transfer systems are important for ensuring against loss, providing loans, and accumulating savings (Frankenberg et al. 2002). In such economies or in financially disadvantaged segments within a population, recipients who default on an exchange incur a stigma that reduces the probability of receiving subsequent transfers, even from others in the same family or network. Cox et al. (1998) suggest that "loyalty training" *within a family* [emphasis added] need not be assumed to sustain intergenerational transfers. Rather, "other emotions such as guilt or feelings of obligation may dwarf loyalty". Other economists have speculated that donors persist because of the "warm glow," or the unobserved psychological reward, a donor experiences in assisting others, especially children (Sober and Wilson 1998). Stark (1995a) and Cox (1987) also have suggested that demonstration, or behavioral imitation, is an effective mechanism by which children come to value family transfers, e.g., by observing parents helping a grandparent. Elsewhere Stark (1995b) argues that even when cultural or genetic forces prejudice cooperation, altruism can prevail because individuals are more likely to interact with others who share this sentiment, such as sibs.

Sociology has long focused on the nature of norms of obligation and reciprocity, focusing on how transfers affect social bonds. Mauss (1954 [1925]) and later Homans (1962) focused on how dyadic exchanges sustain small groups by building bonds of reciprocity. Homans elaborates on the three such processes: exchange, sentiment, and status. *First,* transfers may imply repeated exchanges of valued goods and services. Enforcing this system of self-interest is the desire of both donor and recipient to continue receiving transfers. *Second,* the family as a small group reinforces reciprocity by the mutual dependence of kin in activities, interaction, and sentiment. Non-reciprocity endangers social bonds of value to the recipient. *Third,* failure to reciprocate reduces the status of recipient within the small group.

Beginning with the work of Levi-Strauss (1969), and continuing with modifications up to the current work of Molm and Cook (1995), Bearman (1997), and Lawler et al. (2000), sociologists have explored the implications and utility of "generalized exchange" theory. Generalized exchange requires a minimum of three participants who engage in two unilateral exchanges which satisfy the condition of indirect, or serial, reciprocity (A to B; B to C). Note that here generalized exchange consists of two distinct dyadic exchanges either of which could be misinterpreted if not located in a broad family context. Bearman (1997) describes intricate chains of generalized exchange found in small, closed populations, but economists Ribar and Wilhelm (2000) describe more realistic exchange systems combining both simple one-way restricted exchanges and generalized exchanges. Assume we observe three generations of a family over several periods. At T_1 an adult child (G2) lives with her mother from the first generation (G1). The G1 parent may incur an obligation to repay her daughter, perhaps with a bequest, or the mother-daughter co-residence may fulfill the daughter's obligation to reciprocate for an earlier transfer. In either case, the G3 grandchild may assume an obligation to assist his/her own G2 parent at T_2 .The conditions of generalized exchange also would be satisfied if the child of a G2 sib (say, for example, a G3 niece) observes the help her G2 aunt provided her G1 grandmother, which in turn strengthens the niece's resolve to assist her own mother. Generalized exchange also seems to provide a good fit to the intricacies of human and social capital exchanges linking generations of transnational migrants (Massey et al. 2002). Generalized exchange theory anticipates that families (or small group migrant networks) will differ in their collective transfer behaviors because of differences in embedded norms of caring and obligation.

Generalized exchange theory is not sufficiently developed to the point where it can replace more standard explanations of transfers. It is, for example, uninformative about the criteria a donor uses in reciprocating for an earlier transfer received. But generalized exchange theory suggests a behavioral strategy for identifying families with strong norms of intergenerational obligation. Other things, being equal we would expect that families with dense transfer histories will have stronger norms of obligations and reciprocity.

The current paper contributes to the study of norms of obligations and reciprocity by focusing on why families differ. To the extent that we are able to link between-family

variance to family demographic characteristics or differences in fixed and dynamic individual kin traits, we can begin to map the dimensions of the multigenerational family transfer system and its evolution. In addition, examining how and why such systems differ across successive cohorts may yield important policy-relevant insight into some of the implications of recent changes in family demography.

Data, Variables, and Method

Data are drawn from the U.S. *Health and Retirement Study* (HRS), a prospective panel study of the age-50 and older population (Juster and Suzman 1995; Soldo, et al. 1997). We focus on women born in 1923 and earlier who were first interviewed in 1993 as part of the AHEAD cohort. The 1993 wave used a household screen to identify members of the birth cohort who were non-institutionalized at the time of the first interview.   Those who entered a nursing home after the first interview remained in the sample. We follow respondents through four waves (1993, 1995, 1998, and 2000), using all available data for those who die or attrit as well as those interviewed at all waves. The HRS in 1995, 1998, and 2000 includes a post-death proxy interview that captures the help given by family members between the last living interview and death, and these data are included in the analysis.

Variables

The outcome measure is a dichotomous variable indicating whether the individual child *provided ADL or IADL help* to the elderly mother. In addition to a wave indicator that indexes the passage of time, the analysis includes characteristics of each child, characteristics of the mother, and characteristics of the family, including the family culture measures. They include:

Children's characteristics: *sex*; *whether the elderly mother raised one of this child's children* ; whether the child has a *step relationship to the mother*; whether the child is *married*, and whether the child has *married brothers, married sisters, unmarried brothers,* or *unmarried sisters.* Each of the marital variables includes a third category to indicate that data on the child's marital status or that of the sibs is missing.

Mother's characteristics: Mother's *self-assessed global health*, measured at each wave. Data from the last living observation are used for respondents to the post-death proxy interviews. The categories that are contrasted with "excellent" health are: "very good," "good," "fair," "poor," and missing. Mother's *age* is measured at each wave. The categories contrasted with ages 70-74 are: 75-79, 80-84, 85-89, and 90 and older.

Family measures: Three variables are measured at the family level and do not change over time. *Ethnicity*, contrasted with white, non-Hispanic, includes three categories: black, Hispanic, and other. The other two measures are indicators of the family culture of giving because they measure transfers in earlier generations before virtually all the children in this study were born. In 1998, respondents were asked: "Before age 16, was there a time when you or *your family received help* from relatives because of financial difficulties? The variable, coded as a set of contrasts with "no," include "yes" and "missing." Missing observations on this variable are respondents who attrited before the 1998 interview. In 2000, respondents were asked: "Did you ever *live in the same household with a grandparent* for a year or more before age 17?" This variable is coded in the same way as the family received help variable.

Method

Each observation in the data set consists of the data on one child at a particular wave. There are up to four observations (one for each wave) on the existence of a transfer from adult child to mother. In addition, there are varying numbers of observations within each family, depending on the number of children in the family and the number of waves for which they are present. Finally, there are multiple families. Given this data structure, a multilevel modeling strategy is conceptually appropriate (Goldstein 1995; Agresti, Booth, Hobert, and Caffo 2000; Goldstein 1995; Kreft and de Leeuw 1998; Rasbash et al. 2000).

The multilevel method provides separate estimates of the relative variance at each level - for example, the relative size of variance between children in a family compared to variance between families in provision of help, and thus it models the correlation between children in a family. While the model allows for the decisions of actors in a family to be correlated, it does not model the extent to which an actor takes into account the decisions

of other actors. Hence, we are estimating what is sometimes called a nonstructural model. Instead of directly modeling how the behavior of one child is related to that of each of the others, we use an implied model with relatively simple assumptions. We assume a model in which one child is best informed and acts as an altruistic decision-maker. She has perfect knowledge of the needs of the frail parent and the available resources of each child in the family and assigns appropriate roles to each child in light of the parent's needs and the relative resources of the different children. Each child accepts the role given to her or him, and there is no gaming. In assigning roles, the decision-maker uses the sex and other characteristics of each child to assign roles. If this process of assignment were uniform across families, provision of care by each child would depend only on the frail parent's characteristics and those of each child. Variation among families may indicate differences in collective family orientations.

Models are estimated using MLwiN software. The model presented here treats all coefficients as fixed.

Results

Results are presented in Tables One and Two. Table One presents the univariate distributions of the variables in the model. Most variables are given at the child level, for the 40873 observations used in the analysis. These observations consist of one observation per child per wave in which we have data for the child. We present, in addition, the distribution of variables at the family level for variables that are unchanging at the family level, reflecting the 3901 separate families in the analysis. Child-level variables include two that might appear to be family characteristics – mother's health and her age. These variables change from wave to wave and are therefore not unchanging characteristics. Focusing on the family culture measures, 6.3 percent of the elderly women report that their families received help while they were growing up, and this characteristic is found in a total of 7.2 percent of the children's observations in the dataset. Women who were not interviewed in 1998 when the question was asked are 27.3 percent of the sample but only include 18 percent of the child observations. The difference in these two amounts results because the children of respondents who drop out

are represented in fewer waves than the children of respondents who remain in the survey for more waves.

Table Two models the probability that a child will provide ADL or IADL to a parent and presents results of the multilevel model. Model One includes only estimates of variance at the child and family level. Variance at the family level exceeds that at the child level. Model Two adds an indicator for wave of observation, contrasting the probability of help in later waves with 1993. As expected, the probability of providing help increases over time, reflecting the aging of the mothers. Family level variance continues to exceed between child variance within families.

Model Three includes all variables, and the results conform to expectations. Male children are less likely to provide help. Being a step child has a strong negative effect. Married children are less likely to provide help, and having female sibs, married or unmarried, reduces the probability of providing help. Having male sibs reduces the probability of help less than female sibs, and having married male sibs reduces it slightly more than unmarried male sibs.

Among the mother's characteristics, both worse health and increasing age are associated with greater probability of receiving help. Among the family measures, the family culture measure of having received help while growing up has a significant positive effect while having lived with a grandparent has a positive but non-significant effect. The positive coefficients for being missing on the family culture measures is expected. Those who are not in the study by 1998 or 2000 consist of those who have died and those who have dropped out for other reasons. One would expect those who have died would have, in many cases, drawn on family care in the period before death. Results also indicate that whites (the reference group) are less likely to receive help than blacks, Hispanics, and the "other" category.

In this final model, the between-family error variance is substantially smaller than the child-level variance, indicating the substantial role of the included variables (including mother's health) in explaining differences between families.

Discussion

We focus on two particularly important finds. First, the analysis provides some evidence for the importance of family culture – the norms of obligation and reciprocity in families governing the provision of help. Net of other factors, elderly women who report that their families received financial help before she was 16 are more likely to receive ADL or IADL care from their children. The effect is substantial, about 44 percent the size of the effect for child's sex – one of the best-established and most important predictors of providing help.

Living with a grandparent has a positive but non-significant effect. Women in the survey were born between 1890 and 1923, so that living with a grandparent would have occurred between 1890 and 1940. In that period, inter-generational co-residence was more common and may be a less good indicator of family obligation than in later cohorts.

Finally, we focus on the effect of being a step child. The results indicate that step children are much less likely to provide care. This finding is particularly important given recent changes in the American family. Wachter (1997), for example, has shown that the declining numbers of own children will be numerically offset by increases in the number of step-children. Yet, the extent to which step-children substitute behaviorally for biologic offspring has been unknown. These data from the HRS suggest that own and step-children are not interchangeable, though the issue clearly deserves more in-depth analysis.

Literature Cited

Agresti, A., J.G. Booth, J.P. Hobert, and B. Caffo. 2000. Random-effects modeling of categorical response data. Pp. 26-80 in M.E. Sobel and M.P. Becker, eds. *Sociological Methodology*, volume 30. New York: Blackwell.

Bearman, P. 1997. Generalized exchange. *American Journal of Sociology* 102: 1383-415.

Borsch-Supan, A., J. Gokhale, L. J. Kotlikoff, and J. Morris. 1992. The provision of time to the elderly by their children. Pp. 109-134 in *Topics in the Economics of Aging,* D.A. Wise (ed.), Chicago: The University of Chicago Press.

Cox, D. 1987. Motives for private income transfers. *Journal of Political Economy.* 95: 508-546.

Cox, D., Z. Eser, and E. Jimenez. 1998. Motives for private transfers over the life-cycle: An analytic framework and evidence for Peru. *J. of Development Economics*, 55:57-80.

Frankenberg, E., L. Lillard and R.J. Willis.2002. Patterns of Intergenerational Transfers in Southeast Asis. *J. of Marriage and Family*, 64: 627-641.

Goldstein, H. 1995. *Multilevel statistical models, second edition*. London: Arnold.

Henretta, J.C., M. S. Hill, W. Li, B. J. Soldo and D. A. Wolf. 1997. Selection of children to provide care: The effect of earlier parental transfers. *Journal of Gerontology: Social Sciences.* 52B: 110-119.

Homans, G.C. (1962) 1974. *Social Behavior: Its Elementary Forms.* NY: Harcourt Brace.

Juster, F. T. and R. Suzman. 1995. An overview of the Health and Retirement Study. *Journal of Human Resources*. 30(Supplement): S1-S30.

Kreft, I. and J.de Leeuw. 1998. *Introducing multilevel modeling*. London: Sage.

Kuo, H.D. and R.M. Hauser.1996. Gender, family configuration, and the effect of family background on educational attainment. *Social Biology* 43: 98-131.

Lawler, E., S.R.Thye, and J. Yoon. 2000. Emotion and group cohesion in productive exchanges. *American Journal Of Sociology*, 106 (3): 616-57.

Levi-Stauss, C. 1969. *The Elementary Structures of Kinship*. Boston: Beacon Press.

Massey, D. S., J. Durand, and N. J. Malone. 2002. *Beyond Smoke and Mirrors: Mexican Immigration In an Era of Economic Integration.* New York, NY: Russell Sage Foundation.

McGarry, K. and R.F. Schoeni. 1997. Transfer behavior within the family: Results from the Asset and Health Dynamics Study. *Journal of Gerontology: Social Sciences.* 52B: 82-91.

Molm, L. and K. Cook.1995. Social exchange and exchange networks. Pp. 209-35 in *Sociological Perspectives on Social Psychology*. Edited by K. Cook, G. Fine and J. House, Boston: Allyn and Bacon.

Rasbash, J., W. Browne, H. Goldstein, M. Yang, I. Plewis, M. Healy, G. Woodhouse, D. Draper, T. Lewis. 2000. *A user's guide to MLwiN, version 2.1a*. London: Multilevel Models Project, Institute of Education, University of London.

Ribar, D.C. and M.O. Wilhelm. 2001. The intergenerational transmission of exchange attitudes: Evidence of generalized exchange from three generations of Mexican-Americans. Mimeograph, Dept of Economics, The George Washington University, Washington DC.

Sober, E. and Wilson, D.F. 1998. *Unto Others: The Evolution and Psychology of Unselfish Behavior*. Cambridge , MA.: Harvard University Press.

Soldo, B. J., M. D. Hurd, W. L. Rodgers, and R. B. Wallace. 1997. Asset and Health Dynamics Among the Oldest Old: An overview of the AHEAD study. *Journals of Gerontology, Series B.* 52B(Special Issue): 1-20.

Soldo, B. J., D. A. Wolf, and J. C. Henretta. 1999. Intergenerational transfers: Blood, marriage, and gender effects on household decisions. Pp. 335-355 in *Wealth, Work, and Health: Innovations in Survey Measurement in the Social Sciences.* Edited by J. P. Smith and R. J. Willis. Ann Arbor, MI: University of Michigan Press.

Stark, O. 1995a. An exchange implication of transfers: The demonstration effect. Pp. 47-86 in O. Stark, *Altruism and Beyond*. Cambridge University: Cambridge University Press.

Stark, O. 1995b. Intrafamilial transfers and exchanges: Forming and sustaining altruism. Pp. 119-136 in O. Stark, *Altruism and Beyond*. Cambridge University: Cambridge University Press.

Stern, S. 1995. Estimating family long-term care decisions in the presence of endogenous child characteristics. *Journal of Human Resources*, 30 (3): 551-580.

Wachter, K.W. 1997. Kinship resources for the elderly. *Philosophical Transactions of the Royal Society: Biological Sciences*, series B, 352:1811-18.

Wolf, D.A., V. Freedman, and B.J. Soldo. 1997. The division of family labor: Care for elderly parents. *Journals of Gerontology, Series B.* 52B(Special Issue): 102-109.

Table One
Percentages and Means

	Child Level			Child Level	Family Level
Give ADL/IADL help	10.1%				
Wave indicator		**Mother's characteristics**			
1993	28.2%	Health			
1995	26.7%		excellent	7.7%	
1998	24.3%		very good	21.0%	
2000	20.8%		good	29.2%	
			fair	25.1%	
Child's characteristics			poor	16.6%	
Sex (male)	49.1%		missing	0.5%	
Mother raised a child	2.9%				
Step relationship	7.6%	Mother's characteristics			
Married		Age			
yes	64.3%		70-74	18.8%	
no	35.1%		75-79	32.8%	
missing	0.6%		80-84	26.1%	
Male married sibs			85-89	14.7%	
yes	63.2%		90 plus	7.4%	
no	35.9%				
Male unmarried sibs		**Family characteristics**			
yes	32.3%	Ethnicity			
no	66.8%		white, non-Hispanic	76.0%	80.3%
Male sibs marital msg.	0.9%		black	15.0%	13.1%
Female married sibs			Hispanic	8.0%	5.8%
yes	61.3%		other	1.0%	0.8%
no	37.8%	Family received help			
Female unmarried sibs			yes	7.2%	6.3%
yes	37.7%		no	74.8%	66.5%
no	61.3%		missing	18.0%	27.3%
Female sibs marital msg.	1.0%	Mother lived with grandparent			
			yes	13.2%	11.6%
			no	57.4%	49.4%
			missing	29.4%	39.1%
		N		40873	3901

Table Two
Multilevel Model for Provision of ADL and IADL Help to Mother
HRS Respondents Born Before 1924

	Model One		Model Two		Model Three	
	coefficient	(s.e.)	coefficient	(s.e.)	coefficient	(s.e.)
Wave indicator (vs. 1993)						
1995			0.41	(0.05)	0.31	(0.05)
1998			0.75	(0.05)	0.47	(0.06)
2000			0.87	(0.05)	0.55	(0.07)
Child's characteristics						
Sex (1=male)					-0.66	(0.05)
Mother raised a child					0.23	(0.13)
Step relationship					-1.96	(0.17)
Married (vs. not married)						
yes					-0.36	(0.05)
missing					-1.05	(0.47)
Has						
married male sibs (1=yes)					-0.26	(0.05)
unmarried male sibs					-0.19	(0.06)
married female sibs					-0.43	(0.05)
unmarried female sibs					-0.42	(0.06)
marstat msg.-male sibs					0.02	(0.39)
marstat msg.- female sibs					-0.23	(0.41)
Mother's characteristics						
Health (vs. excellent)						
very good					0.10	0.12
good					0.51	(0.12)
fair					0.98	(0.12)
poor					1.36	(0.12)
missing					1.65	(0.44)
Age (vs. 70-74)						
75-79					0.40	(0.08)
80-84					0.87	(0.09)
85-89					1.32	(0.10)
90 plus					1.67	0.11
Family characteristics						
Ethnicity (vs. white, non-Hispanic)						
black					0.25	(0.08)
Hispanic					0.22	(0.11)
other					0.66	(0.27)
Family received help (vs. no help)						
yes					0.29	(0.11)
missing					0.52	(0.08)
Mother lived with g'parent (vs. no)						
yes					0.13	(0.09)
missing					0.67	(0.08)
Intercept	-2.04		-2.52		-3.44	
Variance						
family level	1.19		1.34		0.69	
child level	1.05		0.96		1.70	