The distinction between households and families has received increasing attention in recent years. One reason that this distinction is important is that living arrangements may themselves be an important component of the economic relationships among family members. In this sense, the dynamics by which individuals are selected into coresidence have direct implications for understanding how families interact to improve each others' welfare.

A particularly salient example of living arrangements as a component of family economic relationships was proposed by Rosenzweig and Stark (1989). Noting that agricultural families face weather risks, which are spatially correlated, they demonstrated that family members would be expected to have incentive to distribute themselves across locations—thereby exposing them to less positively correlated income risk. By organizing their living arrangements in this way, family members could improve their ability to insure each other against these risks.

This paper begins by extending this reasoning, and in the process drawing on the growing theoretical literature on risk sharing in the absence of formal commitment. A long literature, inspired in part by Townsend (1994) and Mace (1991) contains evidence that households in a variety of contexts—and especially in developing countries—are unable to fully share their idiosyncratic risk. This evidence demonstrates the real world importance of well-understood theoretical barriers to complete insurance, including imperfect information, imperfect commitment, and imperfect monitoring. In contexts where formal institutions do not allow individuals to use market mechanisms to fully insure themselves against income risk, extended family networks may represent the best alternative. This is because, in addition to sharing risk by making (possibly implicit) arrangements for contingent transfers of resources, family members can also use the additional margin of living arrangements to adjust their *exposure* to aggregate risk.

To fix ideas and clarify a conceptual framework, the paper presents a formal model exploring factors affecting the scope of a risk sharing arrangement to improve the ex ante welfare of its potential parties (more specifically, its Pareto frontier). These include not only the correlation in the risks individuals face, but also on aspects of their preferences. Particular attention is paid to the joint role of risk aversion and the correlation in risk exposure. These preferences play a role because in the absence of formal commitment, incentives to keep to a contingent transfer agreement must exceed incentives to renege. The tradeoff is especially salient in the case of individuals who have recently

experienced unusually high income realizations. They may be tempted to keep the windfall entirely for themselves, even if they had ex ante agreed to share it. However, they must weigh that against the psychic costs of reneging on individuals toward whom they may feel altruistic, as well as the costs of a breakdown in trust and perhaps even social sanction. In this context the model begins by demonstrating that under plausible conditions, the best type of partner to have in such an arrangement—regardless of one's own risk preferences—is a person who is both highly risk averse and facing shocks which are highly negatively correlated with one's own. This combination denotes the "best type of partner" because an arrangement with such a partner produces the largest possible set of implementable contingent transfer schemes, and includes at least one scheme which Pareto dominates those which would be implementable if he were less risk averse, or faced more positively correlated shocks. This implies that under those plausible conditions, a larger surplus would be generated for a family if it took care specifically to spatially diversify its most risk averse members. This reasoning is in keeping with empirical observations reported in the experimental economics literature, that bilateral self-enforcing risk sharing arrangements are more stable if one or both members are more risk averse.

Next, motivated by this conceptual framework, the paper draws on a unique pair of datasets from rural Mexico to explore empirical relationships between family members' financial risk aversion and one aspect of living arrangements—specifically, the process of household partition. The first dataset comes from the Mexican Family Life Survey, Preferences Pilot. This study used techniques from experimental economics to elicit attitudes and preferences on a population representative sample of 13 rural communities. Participants made decisions in incentivized tasks under controlled conditions; in addition, they answered a series of hypothetical questions in structured interviews. One of the incentivized tasks was designed to elicit an indicator of participants' willingness to take financial risk. It presented a set of alternative financial lotteries; those lotteries which had the highest expected payoff also had the highest variation among the possible outcomes, so that in making a choice, a participant would be striking a balance between risk and reward. At the end of the task, participants' chosen lotteries were executed, and they were paid in cash according to the outcome. Several questions in the structured interviews were also designed to elicit participants' willingness to take financial risk. They included hypothetical questions about choices among alternative lotteries, in which participants were asked which lottery they would choose if real money were at stake. Each participant both completed the incentivized tasks and, in separate contexts and at a different time,

also answered the hypothetical questions. Therefore, the elicited preferences from both of these instruments could be directly validated against each other. My results indicate that these instruments are highly consistent; those who are identified by one instrument as relatively risk averse have significantly higher odds of also being identified as relatively risk averse by the other instruments. (This is illustrated in the first of the attached tables, which is taken from an earlier version of this paper).

The second dataset is taken from the second wave of the Mexican Family Life Survey (MxFLS). MxFLS is a nationally representative survey of communities, families, and households, which provides detailed information on over 11000 respondents. (Although the data are nationally representative, the analysis is restricted to the subset of the MxFLS data which consists of rural communities. This is because the conceptual discussion dealt heavily with environment-related productivity risk, which is only relevant in agricultural communities). These respondents answered questions designed to elicit their attitudes toward financial risk by asking them to make a series of choices among alternative financial lotteries. There was no real money at stake in their responses. The findings reported above suggest that these hypothetical questions give a good indication of individuals' willingness to take financial risk. (Those findings are also buttressed by a direct cross validation of responses in the two datasets, which takes advantage of those individuals who were respondents to both surveys). The hypothetical questions were answered during the 2005 administration of MxFLS. Since the survey is longitudinal, it is possible to track respondents back to the previous wave of the survey, which had been administered in 2002, and identify those with whom they had been living. On the basis of this information, I examine the relationships between family members' financial risk aversion and household partition. In order to do so, however, I must make the strong assumption that family members' risk aversion is fairly stable from year to year—more specifically, that these preferences cannot themselves be affected by individuals' life experiences (especially the experience moving out of their original households). Data to test this assumption directly are still lacking, but I describe promising studies which may produce these data in the future.

The main part of the empirical analysis asks whether there is a systematic relationship between respondents' risk aversion and the likelihood that they had split off from their original households. One of the important results is shown in the second of the attached tables (which is also taken from an earlier version of this paper). It indicates that where there is variation among a group of adult

siblings in terms of their willingness to take financial risk, it is the more risk averse among them who are most likely to have split off from the original household. This is finding is particularly interesting in light of the conceptual discussion about risk diversification within the family, since this pattern suggests that the patterns of household partition tend to be those which produce the "best type of partner" (as that phrase was defined formally in the conceptual framework) for the rest of the family. Having established, therefore, that patterns in household partition tend to be those which maximize the potential total gains to the family from informal insurance, I turn next to the question of whether families take advantage of these potential gains. Preliminary results suggest that they do; in those families in which an individual split off from the origin household, variation over time in the origin household's income is smaller than variation over time in the aggregate income of the community; this difference between household-specific change and community-wide change suggests that the departure of a family member helped to buffer against community-wide shocks. Furthermore, and more importantly, this difference is larger, the more risk averse is the individual who originally departed.

Table A. Comparing willingness to take financial risk, as elicited by hypothetical questions and incentivized tasks

Dependent variable: scale indicating how risk averse respondent appears based on choice in incentivized task. (Higher number: less risk averse). Ordered logit regressions; odds ratios reported	Odds ratio
Appeared most risk averse based on responses to hypothetical questions	0.7 [3.3]
…appeared *least* risk averse	1.3 [2.0]
# of individuals	1061

Z-statistics (computed by jackknife) reported in brackets.

Table B. Comparing siblings' likelihood of separating from their origin households as a function of their financial risk aversion

Dependent variable: 1 if the individual left his origin household (see extended abstract text for more details). Linear probability model, with fixed effects by sibling group	Column 1	Column 2
Individual is highly risk averse	0.09 [2.3]	0.09 [2.2]
Age/Sex indicators included	N	Y
# of individuals	939	939

Asymptotic T-statistics (estimated by jackknifing while resampling sibling groups) reported in brackets