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MEASURING HOUSEHOLD CHANGE AT THE INDIVIDUAL LEVEL USING DATA FROM SIPP

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ABSTRACT

This paper approaches the problem of studying household change from the perspective of the individual household members. Measures of household change are presented for individuals aged 15 to 29 by age and sex. An initial comparison of measures based on four month and one year intervals showed that the one year' measures significantly undercount the number of changes experienced by young adults and thus most of the analysis is based on four month intervals. The effect of sample attrition over time in the panel is addressed by using information from any relevant follow-up interviews regardless of whether the person was interviewed in all relevant waves. Rates of change in household size, changes in living with parents and changes in living with spouse are computed by age and sex.

INTRODUCTION

The objective in this paper is to study household change from an individual perspective. In contrast to many studies of household change which use the household or family as the unit of analysis and relate these changes to characteristics of the household head or householder, the individual perspective is particularly useful in understanding the changes experienced by persons who are not householders. In this paper we will focus on young adults aged 15 to 29 and shall be interested in exits from and returns to their parent's household. We will also examine marriages, marital separations and any changes in household size.

The study of household change is of interest because of the significant changes in the composition of households in the United States in the past two decades. Since 1970, the number of households in the United States has grown considerably faster than the population. Between 1970 and 1987, the major sources of this increase were the growth in one-parent families (from 3.8 to 8.9 million) and single person households (from 10.9 to 21.2 million). This fragmentation of households has had serious consequences for society. One of these is a loss in household economies of scale and this has affected the economic quality of life for many persons. For example, in 1986, a two-person family with an income of $11,000 had a standard of living which

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was 54 percent above the poverty level. However, if these two persons broke into single person households and divided their income equally, they would both have been below the poverty level (U.S. Bureau of the Census 1987). Recent work has documented the effects of variation in household structure, including immediate effects of household change on poverty (McLanahan, 1985; Wilson and Neckerman, 1985; Ruggles, 1987; David, 1988) and on longer-run outcomes such as children's later economic and family patterns (Shaw 1982; Hill 1986; Kobrin and Waite 1984).

Life course theory suggests that there is a normal sequence of events such as completing education, finding employment, marrying, and becoming a parent (Elder 1975; Marini 1984). However, recent studies have ' shown that many persons experience disorderly life cycles (Marini 1987; Rindfuss, Swicegood and Rosenfeld 1987). Goldscheider and DaVanzo (1985) have shown that nestleaving, in particular, is not closely tied to the other events of early adulthood. They also observed that substantial numbers of young people returned home after leaving. Morgan (1988) observed that many married couples have periods of trial separation which may or may not lead to divorce.

Most analyses of family and household change have focused analytically on the household level. These include the work of White and Tsui (1986) using the PSID, Koo (1985), using the Income Survey Development Program , and Citro and Watts (1985), using the SIPP. One common mode of analysis is to examine the extent to which the household changes from one type to another such as from married couple household to single parent household. Citro, Hernandez and Herriot (1986) looked at the duration of existence of households and the frequency of changes in households using different definitions for a longitudinal household. They found that changes in household size were much more frequent than changes in family type or changes in the reference person.

Relatively few studies have looked at household change from the individual perspective. Richards, White and Tsui (1987) used the Panel Study of Income Dynamics to estimate individual-rates of transition between types of households and the survival rates of individuals in particular types of households. This study used only those individuals who were followed for 13 years and, given the significant amount of attrition which occurred during this period, their results may be seriously biased. Watts (1987) used the SIPP to look at household changes experienced by children under 18 and specifically at changes in the number of parents in the household. Their approach is similar to the one which we have adopted although it looks at a different age group and does not try to deal with the problems associated with attrition.

The SIPP has several advantages for the analysis of household change. First, the SIPP is superior to the CPS and other cross-sectional data because it is a panel data set with several waves, allowing direct causal inference, even though it covers only about 30 months. Second, it follows the individuals in the sample every four months and obtains data on many items for each of the intervening months, while other panels such as the PSID only collect data yearly. This frequent follow-up is particularly important in the study of household change, as it is desirable to observe

characteristics of the household such as employment and income, and household composition immediately prior to the event. Third, unlike the PSID, the SIPP treats all adults identically both in the manner in which demographic characteristics are measured, and in the manner in which they are followed over time as fission occurs. A consistently measured set of income, labor force, education, and other variables is available for all adults in the household, not just the head or spouse, and all individuals are followed even if they leave the household. Fourth, the SIPP has almost four times the sample size of the PSID, which is a critical difference for the analysis of relatively rare events. Finally, while there was sample attrition between waves of the SIPP, the attrition rates appear to be lower than those of the PSID (Herriot and Kasprzyk, 1986). As a result, the SIPP is an extraordinarily rich file for this analysis.

However, its richness results in great complexity. To realize its full value requires the ability to link individuals not only over time, as information on them accumulates in the panel, but .also to other individuals in the household.

METHODS

Household change is a common event for persons 15 to 29 and it can take many forms. At age 15 most persons are living with one or,,both parents and probably some siblings. By age 30, most of these people have left their parents household and established a new household, most often with a marital partner. However, there are many other household changes which can occur during this time period. While living with parents, one parent may die or move out, a single parent may remarry, siblings may come and go and other relatives and/or unrelated people may enter or leave the household. If the young person leaves his or her parent's household, he or she may return at a later date. Outside the parent's household, there may be several temporary households.

In an attempt to make sense of the variety of household changes which can occur, we have focused on those changes which involve primary family relationships, particularly those involving the person in either a parent-child relationship or a husband-wife relationship. We will also look at all household changes involving a change in the number of persons in the household.

Although the SIPP data measure household composition for each month, we will use four month periods as our time unit of observation because the measures of household change from interview to interview are more accurate than those from one month to the next. SIPP did not code more than one move per individual per wave and an examination of the dating of these events showed an uneven distribution across the four months within a wave and a significant proportion of events occurring between the interview of one wave and the first month of the following wave.[2] This

[2]Since the month of interview was the same as the first reference moth of the following wave, there should be few changes recorded. Only those changes which occurred between the date of interview and the 15th of the same month would properly fall in this interval. In doing so, we discovered a few cases for which the person numbers for the parent and the spouse were the same and recorded these based on other waves.

suggested that measures of monthly changes in households would be unreliable.

The information we used to measure household change was derived from two items in the data file. First, the person numbers of parents and spouses in the same household (these were generated for all persons with a parent or spouse in the household), and second the interview codes in the retention file created by SIPP ACCESS which gives each person's status at the end of the wave. By matching household numbers of persons sharing a common address at the month of interview for each wave, we were able to calculate most aspects of the family structure at each interview for all persons 15 - 29 years old as of the first interview.

In particular we calculated the number of four kinds of relatives in the households of all persons 15-29 as of each wave interview:

1. *spouses,* either 0 or 1, depending on whether a person number of a spouse was indicated.

2. *children;* a count of persons in the household with either the respondent's or the respondent's spouse's person number given as parent.

3. *siblings,* a count of persons in the household having the respondent's parent's person number as parent or person having the respondent's parent's spouse's person number as parent. This last group was very small.

4. *parents,* a count of persons in the household who were identified as either the parent of the person, the spouse of the parent, the parent of the spouse, or the spouse of the spouse's parent.

A residual category was also calculated, of those not in categories (1) through (4) in the same household with the young adult.[3]

From the interview codes for each wave[4], we ascertained whether or not sufficient information had been obtained about the respondents household to determine if a household change had taken place. Those with codes 0 to 4 were either interviewed or had proxy interviews.' These persons were in households for which an interview was obtained. For these we assumed that the count of persons matched on household identification and address codes and the spouse and parent numbers were accurate.[5]

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[3]These counts were made using the Ingres program at the University of Wisconsin from a table which linked each person 15-29 with every other person in their household at the end of the interview period.

[4]These were obtained from the RETENTION table created by SIPP ACCESS.

[5]A check of cases from the 2 percent sample showed that our count was always identical to the number of persons coded on the household record.

In its recent redesign of the data set, SIPP ACCESS added interview codes 5 through 9 to indicate that an interview was obtained from someone in the household and the person had been present in the household for at least one month during the wave, but who had either moved to a new address where they could not be interviewed or ceased to be in the sample because of death or movement to the armed forces, an institution or a foreign country. This group of added codes also included a few individuals who were sample relevant,-not interviewed and not coded as refusals. These added codes enabled us to make inferences about the nature of household change in some cases. Using the exit reasons we were able to identify those who had died or entered an institution and exclude them from the analysis. We did not exclude those who ceased to be "sample relevant" because they entered the armed forces or moved abroad.[6] Other persons were assumed to be living with all of those who shared the same address code.

For our analysis, we constructed a record for each interval of observation between two waves, beginning with the interval between waves 1 and 2 and continuing to the interval between waves 8 and 9. In households in which no one was interviewed in a particular wave because of refusal, movement to an unknown location or other reasons, we use the data for the next wave in which there was an interview.[7] If there was no subsequent interview, we are unable to make any inference about changes in household composition and such intervals were excluded. These excluded intervals account for only three percent of the total intervals with an initial interviews.[8]

We compared household structures between each wave and the following wave and constructed several measures of household change, each based on a four month observation period. In addition, for those missing information in the following wave, we measured change to the next available interview and divided by the number of four month intervals to standardize the length of the period for which the rates were calculated.[9]

Our initial sample consisted of 13,408 persons aged 15 to 29 who had nonzero weights in wave

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[6]SIPP considers these people to be out of the sample and does not follow them while they are away, but includes them again if they reenter the household.

[7]When the interval between waves was more than four months, we increased the base for computing rates in proportion to the length of the interval, up to a maximum of 12 months. It was felt that for intervals of greater than on year, the effect of increased duration was offset by the greater likelihood of missing multiple events. Only about 0.1 percent of all intervals were greater than one year.

[8]This calculation understates the overall effect of attrition because persons who are lost at one of the earlier waves are only counted in the denominator for the periods in which they had an initial interview.

[9]When the interval between interviews exceeded one year, we divided by 3 intervals since rates of change did not appear to increase with the length of interval for intervals longer than one year. There were very few cases with intervals exceeding one year.

1.[10] We had to exclude 448 cases where there was no household interview after wave 1. This left 12,960 cases contributing at least one wave of information. In all we included 72,465 periods of observation for which the respondent was aged 15 to 29.

By comparing the counts of total persons in the household and in each of the four categories for specific relatives and the additional category for others between waves we classify individuals in terms of household changes. For each type of relative we classified household changes into six categories as follows:

1. *Joining,* relative present at beginning of interval but not at end.

2. *Increase,* increase in number of this kind of relative between waves.

3. *No change,* same number of this relative in both waves.

4. *Decrease*, decrease in number of this kind of relative between waves.

5. *Leaving*, relative present at beginning of interval hot at end.

6. *None*, relative present at neither wave.

The Choice of Length of Observation Period

The effects of two alternative lengths of observation period are illustrated in Table I where we have calculated alternate rates of entry and exit from households containing a parent or spouse of the young adult.[11] This table demonstrates that significantly more events are counted if we look at changes for each four month period than if we look only at changes between the beginning of the year (wave 1) and the end of the year (the fourth wave [12]). For example, a comparison of the first two rows of table I shows that, for persons interviewed in all four waves, there were 820 exits from the parent's household when all changes observed during four month intervals are summed, compared to only 689 when only one change can be observed for the entire year. Since the net number of nestleavers is the same-in both cases, the difference is entirely due to persons who both entered and exited from the household during the year. If we are interested in separations of less than a year's duration, then we need to use the shorter observation periods in

[10]A small number of cases who were either identified in wave 2 (or a later wave) to have been erroneously included in the sample of to have an age at the time of the first interview that was outside our range were also excluded.

[11]Sampling errors for these rates are considerably larger than those estimated assuming a simple random sample because of the complex nature of the SIPP sample and the fact that we use multiple intervals from the same individual.

[12]Because rotation group 4 did not receive wave 2, the fourth wave for that rotation group is wave 5.

order to accurately count these events.

If we used even shorter periods of observation, we would observe even more events. We have not tried calculating rates based on a one month period because, while SIPP provides measures of household composition for each month, these are based on information about entries and exits recorded on the control card and apply only to persons who were either in the household at the time of interview or at the time of the previous interview. No attempt is made to obtain information about people who both enter and exit from the household during the four month period covered by the interview. For many purposes, the presence or absence of a person for periods as short as a month may not be of interest and changes over a four month period may be more relevant. For our study, we feel that the four month period is a reasonable time interval to use.

The Problem of Sample Attrition

A major problem is the selectivity bias caused by attrition in a panel study (Berk, 1983; Heckman, 1979). Attrition comes from households which refuse to continue in the panel, households in which no one is at home at the times when the interviewer calls, households Ohich move to an unknown address and other causes. McArthur and Short (1985) have shown that attrition rates are higher for young adults, males, blacks, Hispanics, never married persons, primary individuals and persons not related to the reference person in the household.

Jean and McArthur (1984) estimated that 80 percent of the persons who changed addresses were followed between waves one and two and we estimated above that 72 percent of the interstate migrants were reinterviewed. The extent of the bias in geographical mobility measures in the SI ' PP panel was explored by Clark and Speare (1988) for the related case of residential mobility. In most cases of attrition it was possible to determine whether or not residential mobility had occurred. However, where the entire household drops out of the panel due to refusal, movement to an unknown address, or other reasons, it is not be possible to determine whether the married couple or child parent relationship has continued.

If one were to restrict the analysis only to persons who were interviewed in all eight or nine waves, we would lose about 24 percent of the periods of observation which are available for persons aged 15 to 29. It is likely that the rate of nestleaving is considerably higher for those who are not interviewed in all waves than for those who were interviewed.

Another problem arises for young people who leave their parental home not for a new residence but for group quarters, particularly the military and college dormitories. The SIPP treats these cases differently. Unmarried students attending college are treated as if they still lived with their parental family as long as the parents maintain a room for them and consider them to be part of the household, following CPS procedures. As a result, their "first" departure from home and return are ignored. Those entering the military are treated as no longer "sample relevant", but can be identified if they leave a household where someone is interviewed in a later interview. We

have chosen to treat these persons as relevant to our analysis for the interval in which they leave the sample household.

The effects of sample attrition upon the results are illustrated in Table 2 where alternative rates are calculated for groups with different response patterns. About one third of the intervals for cases with attrition are for cases which were randomly dropped in waves 5 or 6 because of funding difficulties. These cases are not very different from those which were interviewed in all waves. However, they have higher rates of household change in all comparisons except for those joining spouses. This group differs from the group which had all interviews mainly in missing the later interviews.

The third and fourth groups in Table 2 include groups which were missing one or more interviews. In 11 out of 12 comparisons these two groups have higher rates of all types of household changes than the cases which were interviewed in all waves and in 9 out of 12 comparisons they have higher rates than the "planned attrition" group. On average, the entry and exit rates for the two groups with missing interviews were about one-third higher than the rates for those with all 8 or 9 interviews and the entry rates. The biggest differences were observed between entry rates into the parent's household and exit rates from the spouse's household.

Finally, there were 915 intervals in which young adults left households which continued to be interviewed although they were not interviewed. Most of these were intervals in which the departure was recorded in the interview at the end of the interval, although about 22 percent of these intervals were ones in which they were recorded as having left an interviewed household in the interview at the beginning of the interval and were interviewed in a later wave. Some of these cases involve movement outside the sample of eligible persons - either to the armed forces or abroad. For those cases who left interviewed households, we can usually tell whether the parent or spouse remained, if the parent or spouse had been in the household at the end of the previous wave. Thus we can infer nestleaving or spousal separation in these cases, but are unable to tell, for those not living with a parent or spouse at the previous interview, whether or not they joined the parent or spouse at the new address. For those with a subsequent interview, we can tell whether or not they joined a parent or spouse, but not whether they had left one. Nevertheless, the rates of household change for these persons are very high and it would appear that the common practice of excluding these cases may bias estimates of change. While this group accounts for only about 1.2 percent of all intervals, it includes about 17 percent of all nestleavers and 13 percent of all persons who leave their spouse.

In addition to the types of attrition shown in Table 2, there are those who refuse to continue in the panel, move to an unknown address, or can not be interviewed again for other reasons. In examining these cases, we found that 15 percent of the cases which were lost from the panel had a move away from their parent's household during the preceding wave, in comparison with 2 to 3 percent for intervals for which there was a later interview.

These findings are similar to those of Ernst and Gillman (1988), Jean and McArthur (1987) and

Clark and Speare (1988) in suggesting that limiting the analysis to those who have complete interviews in all relevant waves can seriously bias the results. We shall therefore endeavor, to the extent possible, to use all available information to infer household changes for as high a proportion of the total sample as possible.

Calculation of Sample Weights

Because of the complex sample design and because of differentials in attrition, it is important to employ appropriate weights when analyzing data from the SIPP. However, the selection of appropriate weights is not obvious. The public use files include weights for each month and each wave which are suitable for cross-sectional analysis. However, these weights assume that all household members will be included in the analysis whether or not they were present in the initial sample which was interviewed in the first wave. Since we analyze only those persons who were interviewed in wave one (including proxy interviews), the weights on the public use files are appropriate only for wave one. However, if we apply these weights to later waves, we do not take account of attrition.

We have calculated weights for each wave by starting with the wave one weights for each respondent and multiplying these by an adjustment factor which adjusts for attrition of persons with similar characteristics. These factors were calculated so that the weighted sum of all persons approximated the number of survivors in the noninstitutional civilian population of the United States.[13]

Different adjustment factors were calculated for six subgroups of the population which accounted for the major variation in attrition rates by characteristics of the respondents. These varied by race (whites and others versus blacks, Hispanics and American Indians), household type (living with parent or spouse versus all others) and sex for those not living with parent or spouse. Whites and others who were living with their parent or spouse had the lowest attrition rates whereas black, Hispanic and Indian males who were not living with parent or spouse had the highest attrition rates. A total of 48 adjustment factors were calculated (six groups by eight follow-up waves) and these varied from close to 1.0 to a maximum of 1.98.

Variation in Rates by Duration in Panel

Table 3 presents a comparison of the proportions experiencing a change in household size, a change in living with parents and a change in living with spouse by year in the panel. In order to make the persons in each year as comparable as possible, the age during the particular year has

[13]At wave 1, the weighted total of persons 15 to 29 in our sample agrees well with estimates prepared by the Bureau of the Census. Our weighted total was 60,329,000. The average of the July 1, 1983 and July 1, 1984 estimates of the civilian population aged 15 to 29 was 60,605,500 (see "United State Population Estimates by Age, Sex and Race, 1980 to 1987," *Current Population Reports* P-25, No. 1022). If one applies the 1980 proportion noninstitutional to this number, the resulting estimate is 60,121,000.

been calculated and each year's data are restricted to persons aged 17 to 29 during that year. For all events there is a decline in the rates of occurrence from years one and two to year three. While the reasons for this decline are not entirely clear, we suspect that it is due to the effects of attrition in removing some of the most mobile people from the panel in the later years. The decline in rates is most noticeable for nestleaving and for changes in household size. Rates of return to the parents household and changes in living with the spouse show smaller amounts of decline. Between years one and two, rates are about as likely to increase as they are to decrease. While these data raise some questions about the under reporting of events in year three due to cumulative attrition of persons who are more likely to experience events, the total rates for changes in living with parents and spouse are close to those for years one and two and it therefore makes sense to use all of the waves in the analysis.

RESULTS

Our major focus is on nestleaving, here defined as being a move from a household containing at least one parent to one with no parents. In each four month interval a respondent is defined as either joining their parents, remaining with them, leaving their parents or remaining separated from them. Categories one and four represent joining and leaving, respectively. The difference represents the net nestleaving flow. Percentages in these categories are presented in table 4, with two denominators, at the top the denominator is all cases. These percentages represent gross flows, they can be added and their difference represents the net flow out of the parental household. On the bottom the denominators are the persons at risk of the particular event, those living apart from their parents for joining and those living with their parents for leaving. The denominators are shown in table Al.

The results for both types of gross flows for both males and females show an inverted 'u' shaped curve by age, with the percentages rising to a peak flow at ages 20-21 and then rapidly declining.[14] Clearly the process of nestleaving starts slowly around age 15, rapidly increases to age 21 and then declines as most persons have already left home. As indicated in table Al, most persons 20-21 have not left home, while most of those 22-24 have already left. For leaving parents, the peak age appears to be earlier for females, which is consistent with the sex difference in age of marriage. Rates for leaving are higher for females up to about age 19 and higher for males thereafter.

Rates of return are similar for males and females up to age 25, and are higher for males after age 25.

The net flows of nestleaving are substantial during much of this period. On a yearly basis these

[14]Age was determined at the beginning of each wave from the age reported in that interview, with adjustments for inconsistencies of more than two years between waves. For ages 15 and 16, weights were adjusted to account for the fact that we did not include younger persons who aged into these ages during the duration of the panel.

flows average about 4.2 percent from 15 to 17, 9.6 percent from 18 to 21, 6.3 percent from 22 to 24 and 2.7 percent from 25-29.

There is a significant counterflow back to the household that averages about 40 percent of those leaving. From analysis of individual cases in the 2 percent sample it appears that much of this counterflow is short term, with young people spending relatively small amounts of time with their parents after return.

Looking at nestleaving from the perspective of the percentage of those eligible changes the results significantly. For both sexes, there is a steady increase in the propensity to leave the parental household. Thus by age 25, about 11 percent of those living with their parents leave within four months. This is equivalent to nearly one-half leaving within a two year period. At all ages, females are more likely to leave than males.

The counterflow of those rejoining parents also looks different from the perspective of those eligible. The rate of return is so high for teenagers that those who have left home are more likely to return than teenagers at home are likely to leave. Thereafter there is a monotonic decline in the return rate. Thus by age 25, the return rates are very small, close to one percent. Males are more likely to return at all ages. This return flow for males is an underestimate as we miss those returning from the armed forces or institutions who were excluded from the original survey. Thus more males remain at home both because females are more likely to leave, and because males are more likely to return.

The flows joining or leaving spouses are given in table 5. This analysis does not measure marriage rates but only changes in the presence or absence of a spouse. Approximately 96 percent of those joining a spouse became married during the interval and approximately 90 percent of those leaving a spouse became separated or divorced. The rest were temporary absences.

The pattern of gross flows for joining or leaving a spouse are roughly comparable to those of joining or leaving parents. For both sexes there is an inverted 'u' shape curve for joining a spouse with a peak at ages 20-24 for females and 22 to 24 for males. Females are more likely to join a spouse than males. Females are also more likely to join a spouse than to join parents. For males the total flow rates to parents and spouses are similar with young males more likely to join parents and males aged 22 and over more likely to join spouses. The flows of persons leaving a spouse are relatively low, lower than those leaving parents at all ages. These flows are higher for females than males and increase steadily with age.

Taking into account those eligible to join or leave a spouse presents a different picture. The rates for joining a spouse are significantly higher and peak at a later age than is the case for nestleaving. In fact for males, the rates continue to rise to age 25 to 29, the highest age group observed. Females are more likely to join spouses at all ages under 25.

The proportions living with a spouse who separate steadily declines with age for both sexes. This

proportion is higher for males than females, except at ages 25 to 29. Surprisingly, the rate at which those under 20 living with a spouse leave that spouse is roughly similar to the rate at which those living with parents leave them.

In order to put household changes involving joining or leaving spouses and parents in perspective we also calculated the proportion of respondents for whom household size changed during a four month period. The results are given in table 6. Changes in household size include almost all household changes. If we define change of household as a change in the number of any of the enumerated relatives, spouse, parents, children and siblings, or in the number of other persons in a household, then 94 percent of all household changes involve a change in total household size.

As indicated in table 6 the percentage of those experiencing a household change is substantial in all age groups for both sexes. Clearly most changes in household do not involve either leaving or joining parents, or leaving and joining a spouse. However, the age pattern of all household changes, an inverted 'u' peaking .at 20-21 follows the same pattern as leaving parents. The age pattern of the frequency of household changes not involving leaving parents shows much less variation. The differences in household size change rates by sex also follow the pattern suggested by the frequency of leaving parents, women are more likely to experience a change in household size at ages under 20,, while men are more likely to experience such a change at ages aft r 22. Thus most young Americans experience household changes, not involving their own nestleaving or joining or leaving a spouse, at frequent periods. About 10 percent experience such a change every 4 months, independent of their age or sex. The amount of such changes swamp the frequency of nest leaving and joining or leaving spouses.

CONCLUSIONS

We have shown that the SIPP survey can be used to measure changes in household composition for young Americans and that useful information can be obtained from examining household change from the prospective of the individual. However care must be exercised in this analysis. The treatment of attrition can effect the results. Those included in every wave of SIPP are not a random sample and tend to have fewer household changes than other sample individuals.

The particular focus of this paper is the rate of leaving the household. The propensity to leave home steadily increases after age 15, with the peak number of moves at ages 20 to 21. The propensity to leave home is higher for women than men and men are more likely to return home if they have left. The rate of return movement to rejoin parents is sufficiently high that a simple count of out movement will distort the process.

Nestleaving represents a relatively small proportion of all household changes experienced by young Americans. Many of these changes involve movement of siblings, one of the parents or other persons in the households. Extrapolating the rates of household change to annual rates yields estimates that between one-third and one-half of all young adults experience a household change within a year, depending upon their age and sex. Although nestleaving is a small part of

this total change, it does explain much of the peak in household changes at ages 20-21.

Further research should focus on some of the other forms of household change experienced by young adults and the relationship of one type of household change to other forms of change. The methodology which has been developed in this paper, which focuses on changes in persons in the household who have specific relationships to the respondent, should facilitate this research. In addition, the detailed data on income and receipt of benefits which the SIPP provides at each wave will be useful in studying the changes in economic situation which relate to specific types of changes in household composition.

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Table 1
Counts of Household Changes During Year One for Persons 15 to 29
Who Were Interviewed in all Waves (unweighted)

	Changes in Living with Parents				
	Joined Parents	Left Parents	Number of Cases	Entry Rate	Exit Rate
Net change wave 1 to wave 4	174	689	11,084	1.57%	6.22%
All changes between waves	305	820	11,084	2.75%	7.40%
	Changes in Living with Spouse				
	Joined Spouse	Left Spouse	Number of Cases	Entry Rate**	Exit Rate
Net change wave 1 to wave 4	423	164	11,084	3.82%	1.48%
All changes between waves	474	215	11,084	4.28%	1.94%

Source: Tabulations from SIPP 1984 Panel.
* For those in rotation group 4, these are waves 1, 3, 4 and 5.
** Includes both marriages and returns from temporary absences.

Table 2
Comparison. of Rates of Household Change for Persons 15 to 29
By Interview Status, all 9 Waves (unweighted)

Interview Status	Joined Parents	Left Parents	Number of Cases#	Entry Rate	Exit Rate
	Changes in Living with Parents				
Interviewed in all waves	548	1,265	57,295	0.96%	2.21%
Planned attrition*	74	174	6,486	1.14%	2.68%
Missing some, but interviewed in wave 9	75	147	5,527	1.36%	2.66%
Missing waves, incl. 9	123	214	7,326	1.68%	2.92%
Left interviewed household, not interviewed**	67	381	915	7.32%	41.64%
Total	887	2,181	77,549	1.14%	2.81%

Interview Status	Joined Spouse	Left Spouse	Number of Cases#	Entry Rate**	Exit Rate
	Changes in Living with Spouse				
Interviewed in all waves	860	368	57,295	1.50%	0.64%
Planned attrition*	87	49	6,486	1.34%	0. 76%
Missing some, but interviewed in wave 9	97	59	5,527	1.76%	1.07%
Missing waves, incl. 9	104	66	7,326	1.42%	0.90%
Left interviewed household, not interviewed**	38	84	915	4.15%	9.18%
Total	1,186	626	77,549	1.53%	0.81%

Interview Status	Size Increased	Size Decreased	Number of Cases#	Entry Rate**	Exit Rate
	Changes in Household Size				
Interviewed in all waves	3,837	3,903	57,295	6.70%	6.81%
Planned attrition*	514	621	6,486	7.92%	9.57%
Missing some, but interviewed in wave 9	472	442	5,527	8.-54%	8.00%
Missing waves, incl. 9	590	686	7,326	8.05%	9. 36%
Left interviewed household, not interviewed**	137	631	915	14.97%	68.96%
Total	5,550	6,283	77,549	7.16%	8.10%

Source: Tabulations from the 1984 Panel of SIPP, all persons aged 15 to 29 in wave 1 with a nonzero weight in that wave.
* Persons included iti the 17 percent sample reduction in waves 5 and 6 who had at least three complete interviews.
** Includes persons with SIPP ACCESS presence codes of 5 to 8 in either the beginning wave or the end wave.
\# Number of cases is inflated to represent the number of 4 month periods of observation for those with missing waves, up to a maximum of 3.

Table 3
Rates of Household Change by Panel Year for Persons 17 to 29
(Rates per four month interval, weighted

	Panel Year			
	First	Second	Third	Total
Change in Household Size				
Percent with increase	7.8	7.8	6.4	7.5
Percent with decrease	9.5	8.1	6.9	8.5
Change in Living with Parents				
Joined Parents	1.3	1.4	1.0	1.3
Left Parents	3.4	3.1	2.6	3.2
Change in Living with Spouse				
Joined Spouse (or married)	1.7	2.0	1.5	1.8
Left Spouse	0.9	0.9	0.8	0.9
Periods of Observation:				
Unweighted Number	32573	23,850	10,779	67,202
Weighted Number	165,129	155,310	74,985	395,434

Source: Tabulations of SIPP 1984 Panel.
Note: The first year includes the intervals between waves 1 and 4 (or 1 and 5 for rotation group 4). The second year includes the next three intervals. The sample has been adjusted to include only persons aged 17 to 29 during the year.

Table 4
Rates for Leaving and joining Households Containing Parents for Persons 15 to 29 by Age and Sex (based on four month intervals, weighted).

Changes Calculated as Percentage of All Persons

	Age Group					
	15 - 17	18 - 19	20 - 21	22 - 24	25 - 29	All ages
			Percentage Joining Parents			
Males	0.3	1.3	1.9	1.6	1.1	1.2
Females	0.4	1.4	2.0	1.6	0.9	1.2
Both	0.3	1.3	1.9	1.6	1.0	1.2
			Percentage Leaving Parents			
Males	0.9	4.2.	5.2	4.3	2.0	2.9
Females	1.6	4.5	5.0	3.6	1.6	2.8
Both	1.2	4.3	5.1	3.9	1.8	2.9

Changes Calculated as Percentage of Eligible Persons

	Age Group					
	15 - 17	18 - 19	20 - 21	22 - 24	25 - 29	All ages
			Percentage Joining Parents			
Males	7.2	10.4	6.8	3.0	1.4	2.6
Females	6.7	7.2	4.9	2.3	1.0	2.1
Both	6.9	8.4	5.6	2.6	1.2	2.3
			Percentage Leaving Parents			
Males	1.0	4.8	7.2	9.4	9.9	5.3
Females	1.7	5.5	8.4	11.6	12.5	6.2
Both	1.3	5.2	7.7	10.3	11.0	5.7

Source: Tabulations of SIPP 1984 Panel. See Table A1 for base numbers.
Note: Eligible persons for joining parents are assumed to be all persons who were not living with a parent in the previous wave. Eligible persons for leaving parents were living with a parent in the previous wave.

Table 5
Rates for Leaving and Joining Households Containing Spouse for Persons 15 to 29 by Age and Sex (based on four month intervals, weighted).

Changes Calculated as Percentage of All Persons

	Age Group					
	15 - 17	18 - 19	20 - 21	22- 24	25 - 29	All ages
	Percentage Joining Spouse*					
Males	0.1	0.9	1.5	2.2	1.8	1.4
Females	0.6	1.9	2.3	2.4	1.6	1.7
Both	0.3	1.4	1.9	2.3	1.7	1.5
	Percentage Leaving Spouse					
Males	0.0	0.1	0.5	0.7	1.1	0.6
Females	0.1	0.4	0.8	1.1	1.4	0.9
Both	0.1	0.3	0.7	0.9	1.2	0.7

Changes Calculated as Percentage of Eligible Persons

	Age Group					
	15 - 17	18 - 19	20 - 21	22- 24	25 - 29	All ages
	Percentage Joining Spouse*					
Males	0.1	0.9	1.7	3.0	3.7	1.8
Females	0.6	2.1	2.9	4.2	3.9	2.6
Both	0.3	1.5	2.3	3.5	3.8	2.2
	Percentage Leaving Spouse					
Males	**	4.8	4.4	2.7	2.0	2.4
Females	4.0	3.8	3.7	2.5	2.3	2.5
Both	4.9	4.0	3.9	2.6	2.2	2.5

Source: Tabulations of SIPP 1984 Panel. See Table Al for- base numbers..
Note: Eligible persons for joining spouse are assumed to be all persons who were not living with spouse in the previous wave. Eligible persons for leaving spouse were living with spouse in the previous wave.
* While most of these are new marriages, they also include those married, spouse absent who return to living with their spouse.
** Fewer than 50 unweighted cases in denominator.

Table 6

Percentages Experiencing a Change in Household Size Among Persons 15 to 29 by Age and Sex (based on four month intervals, weighted).

	Age Group					
	15- 17	18 - 19	20 - 21	22- 24	25 - 29	All ages
Male's	12.5	16.8	18.5	19.1	14.7	15.9
Females	14.3	18.1	19.2	17.8	12.4	15.5
Both	13.4	17.5	18.9	18.4	13.5	15.7

Source: Tabulations of SIPP 1984 Panel. See Table Al for base numbers.

Table Al
Numbers of Cases Used in Computing Rates (Each Case Represents one person observed for one wave (4 months)).

	Age Group					
	15 - 17	18 - 19	20 - 21	22 - 24	25 - 29	All ages
	Unweighted Number of Person Intervals					
Males	5,424	5,047	5,043	7,088	12,163	34,765
Females	5,169	4,985	5,300	8,073	14,173	37,700
Both	10,593	10,032	10,343	15,161	26,336	72,465
	Weighted Number of Person Intervals (in '000s)					
Males	44,141	27,412	28,363	45,552	77,379	222,847
Females	40,619	28,252	29,812	46,849	82,041	227,573
Both	84,760	55,664	58,175	92,401	159,420	450,420
	Percentage Living with Parents*					
Males	96.4	87.9	72.6	45.2	20.5	55.5
Females	93.6	80.6	59.2	30.6	12.5	45.3
Both	95.0	84.2	65.7	37.8	16.4	50.3
	Percentage Living with Spouse*					
Males	0.1	2.8	10.8	26.5	51.7	25.1
Females	1.9	10.0	22.9	43.5	59.9	35.1
Both	1.0	6.4	17.0	35.1	55.9	30.2

Source: Tabulations of SIPP 1984 Panel, Waves 1 to 9.
Based on weighted results. See text for description of weighting.