

YEARLY CHANGES IN HOUSEHOLD COMPOSITION AND FAMILY INCOME

Marshall L. Turner, Jr., Bureau of the Census

INTRODUCTION

Economists, poverty analysts, and demographers are interested in how households change in composition and the effects of such changes on the family's economic situation. From the viewpoint of the economist, the problem of changes in household composition centers on how the structure and size of family income varies as members enter or leave the unit. From a similar perspective, the poverty analyst is interested in knowing if changes in household membership may move the family in or out of poverty. The demographer's main reason for studying gross changes in household composition is to observe the frequency of such changes and assess their effects on the growth and structure of the population and family unit.

This need to investigate problems in family membership dynamics has been expressed by several writers. Martin has pointed out that apparent year-to-year changes in statistics on family and individual households in poverty may be misleading unless one can obtain comparable data on the gross compositional changes these households might have undergone during the same time period.¹ Fisher similarly notes that the consumer behavior of families varies with changes in family personnel and that such phenomena need to be studied by means of a panel survey.² Miller, too, calls attention to the need for longitudinal data on family composition and income for seeking answers about the incidence and nature of poverty.³ Given these expressed needs for statistics on gross changes in family composition and income the purpose of this paper is to describe preliminary tabulations of such longitudinal data from the 1967 Survey of Economic Opportunity conducted by the Bureau of the Census.

Survey of Economic Opportunity.--Under the sponsorship of the Office of Economic Opportunity, the Bureau of the Census conducted two surveys of economic opportunity in February-March 1966 and February-March 1967. These surveys offer two sources of longitudinal data. First, there is the portion of the national random sample of households (family and primary individual units) that was interviewed in 1966 and reinterviewed in 1967. To utilize this longitudinal potential of the overlapping sample, the computer tape files containing the basic data for the uniquely serialized households are now being collated in a computer-record matching operation.

Although the matching work is still incomplete, the 1967 SEO file alone provides a second source of longitudinal data on changes in household composition. In the 1967 SEO, enumerators revisited each physical address included in the 1966 survey and noted any changes in the interview units' members since the first interview. For persons that had entered or left the unit, information on the length of tenure in the unit, personal income

and other characteristics were recorded. If the enumerator found that none of the 1966 household members for a given interview unit were living at the same address in 1967, the fact was noted, and any new family at that address was interviewed. With this type of procedure, two types of household interview units were included in the 1967 SEO. First, there were units that were interviewed for the first time in the SEO, and second, there were households interviewed in both the 1966 and 1967 surveys. When the questionnaire information was transcribed onto computer tape records, each household head's record was given a code which indicated whether this interview unit had been enumerated in both 1966 and 1967. In preparing the current longitudinal tabulations, a computer program was written to search the 1967 SEO tape file and select for tabulation those household units that were coded as having been interviewed in both 1966 and 1967. This group of units makes up the households referred to as "matched" in this paper.

MATCHED HOUSEHOLDS

Of the 61.3 million households represented in the 1967 SEO, approximately 75 percent (45.9 million) were also interviewed in the 1966 survey and were classified as matched households. This statistic of 75 percent agrees closely with the corresponding number of 78 percent for households matched in an earlier, but similar, study involving units interviewed in both the March 1964 and March 1965 Current Population Surveys (CPS).⁴ From a further comparison between these SEO longitudinal data and the earlier CPS matching study, it is observed that 90.1 percent of the SEO matched households had white heads as compared with 90.2 percent of the CPS matched households. In the CPS operation, the characteristics of the matched and nonmatched households indicated that the nonmatched households were due mainly to entire households that moved from or into a sample address during the one-year period and were interviewed in only one of the two years.⁵ Based on the similarity of the above statistical comparisons between the SEO and CPS matched household data and the similarity of the methodology and concepts used in these surveys, it seems reasonable to assume that the households not matched in the present SEO tabulation were also due to mobile households as was the case in the previous CPS study. It should be pointed out, however, that until data become available on the characteristics of the nonmatched SEO households, this inference about the nature of these nonmatches is indirect.

RESULTS

Characteristics of households with changes.--As shown in Table 1., approximately 17.2 percent (7.9 million) of the 45.9 million matched SEO

households underwent a change in membership between 1966 and 1967.⁶ Only approximately 17 percent of the white households had a change in membership as compared to 24 percent of all non-white households. With respect to poverty status of the household, the Table 1 data show only slight differences in household composition changes. Approximately 17.4 percent of the families above the poverty line lost and/or gained members as compared with 17.6 of the poor families.

Types of changes.---The data in Table 2 classify matched households that underwent a change in composition by the number of members who entered or left the household, the color of the household head, and the relative poverty status of the unit. Looking first at the types of gross changes, it is observed that approximately 5.4 million of these changed households lost members between 1966 and 1967. These households represent approximately 69 percent of all the matched households that had a membership change. Fifty-seven percent of these changing households lost only one person; 8.4 percent lost two people; and approximately 3.5 percent lost three or more members.

In contrast to these households that only lost members approximately 2.5 million (31-percent) of the matched households with changes in composition had members join. Roughly 28-percent of the changing units added only one member and the remaining 2.6 percent added two or more members. Although net change data are not available for these households that added members, approximately 393,000 (see Table 2a.) of the units lost and gained at least one member. Therefore, it is possible that for this group of households, an added member was offset by a lost member, and the unit had no overall change in size.

Comparing these changed households according to color of head and poverty status reveals only a few differences. With respect to color, the Table 2. data indicate that households with white heads seemed slightly more likely (69.3-percent as compared to 64.5 percent) to lose a member than did households headed by nonwhites. From a complementary perspective, the nonwhite headed households appeared more likely to have had members join (35.5 percent as compared to 30.7 percent). Comparing these households in poverty in 1966 to the total population of households undergoing a change in composition indicates that nearly 80 percent of the poor households (as compared to 69 percent of all the changed households) had members leave in this one-year period.

Reasons for changes.---The statistics presented so far have been aimed primarily at describing the overall types of compositional changes undergone by the SEO matched households. Referring now to Table 3., it is observed that approximately 1.9 million children joined the 7.9 million matched households that underwent a membership change. Most of these children (78-percent or 1.5 million) who joined these

households were born between the 1966 and 1967 interviews. The remaining 21 percent of these children joined for a variety of other reasons including such events as deaths in families, divorce of parents, and other unspecified reasons.

Table 3. also deals with the reasons for adults (persons 14 years old or over) joining these matched units. Of the 1.2 million joining adults, approximately 13 percent joined the new household in order to take a job. Of the other reasons cited for these joining adults, approximately 13 percent moved in to get married, and another 18 percent were returning from an institution.

White-nonwhite comparisons with respect to the reasons for persons joining the matched households revealed few significant differences. Births accounted for fewer of the children joining nonwhite households than for white households. Approximately 81 percent of the additional children in white households were reported to be accounted for by births as compared with only 61 percent of the joining children in households headed by nonwhites.

Table 3a. provides estimates of the reasons for persons leaving these matched households. Of the 5.3 million leavers who reported such reasons, approximately 15 percent left in order to get married; 32 percent left because they joined the Armed Forces; 25 percent entered institutions; eight percent died; and 16 percent left because of divorce. The remaining approximately four percent reported "other" reasons for leaving.

Overall, these data on reasons for changes in household membership indicate that births, marriages, divorces and deaths were the major reasons for changes in composition. Purely economic reasons for entering or leaving households ranked relatively low in frequency, but the more common change reasons cited above did have economic implications.

Income of leavers and joiners.---Table 4. presents data on the income of persons who left or joined the matched households between 1966 and 1967. Although these data alone do not show the direct relationship between changes in household composition and income, certain inferences can be made about the economic impact of these persons entering and departing from the household. Overall, there were approximately 6.6 million households that lost or gained approximately 8.2 million income-contributing persons. Distinguishing between the households that had joiners or leavers, an estimated 819,000 households had an estimated 878,000 joiners. On the other hand, approximately 7.3 million persons left an estimated 5.8 million households.

Analyzing the income of the joiners first, it is observed that roughly 43 percent of these persons reported no income. Another 21.4 percent had incomes that ranged between \$1.00 and \$1,499; 25 percent reported incomes in the \$1,500 to \$4,999 range, while approximately six percent had at least \$5,000 personal income.

Among the persons that left the matched households during this year, only six percent were in the "loss or no income" category. Approximately 84 percent of these persons had personal incomes that ranged between \$1.00 and \$1,499. Of the remaining leavers, approximately six percent had incomes in the \$1,500 to \$2,999, and slightly over three percent had incomes in excess of \$3,000. "Losing members" seemed to be a more economically meaningful type of compositional change than "adding members." In other words, families that lost members appear to have had a loss of income disproportionately greater than the income gain experienced by families that added members.

Income contribution to the family by joiners and leavers.--These longitudinal data also provide more direct evidence on the relationship between family income and the income contribution of persons who joined or left the matched households. The data in Table 5. indicate that in approximately 70 percent of 5.7 million matched households, leavers and joiners contributed less than one percent of the family income. When this overall statistic is broken down by level of family income, it is observed that the higher the family income, the smaller the proportion of households in which the transient members made no contribution to the family's income. Seventy-seven percent of the households with family incomes under \$2,000 and joiners/or leavers who contributed less than one percent of the family income. For families with incomes in the \$2,000 to \$4,999 range, the percentage was 72 and for families with incomes of \$5,000 or more, this number was approximately 70 percent.

It is also interesting to note the relationship between a significant level of income contribution with respect to the level of family income. The Table 5 data show that approximately 17 percent of the households with family incomes under \$2,000 had part-year members who contributed at least 50 percent of the family income. Similarly, nearly 11 percent of the households in the \$2,000 to \$4,999 family income category had joiners or leavers who made income contributions of this magnitude. For the households with family incomes of \$5,000 or more, only approximately 10 percent had part-year members who contributed at least 50 percent of the family's income.

Summary.--The intent of the work described in this paper is to demonstrate the types of longitudinal data that can be produced from surveys such as the Survey of Economic Opportunity and to illustrate how these statistics can be used to study such problems as the relationship of household composition changes to changes in the family's economic situation. Moreover, the results of this project confirm the earlier finding that approximately 17 percent of all matched households underwent a compositional change in the 12-month study period. In addition, these estimates indicate that households with white heads are less likely to undergo such membership changes than are households headed by nonwhites.

These data also show that most of the persons who joined these households did so for reasons that can be classified as strictly demographic changes. Approximately 57 percent of the children and adults who joined these units cited births, marriages, and deaths for the reasons they made these changes.

With regard to the economic impact on the family of these gross changes in household composition, these longitudinal data show that persons who left households are more likely to have been making a significant contribution to the family income than are persons who joined such units. Overall, in most households with leavers and/or joiners, 71 percent, part-year members contributed less than one percent of the family income. Furthermore, as family income increases, the proportion contributed by leavers and joiners declines.

REFERENCES

- 1) Martin, Margaret E., (1966). Memorandum to Raymond T. Bowman, "Program for information on changes in household composition," Bureau of the Budget.
- 2) Fisher, Janet A., "Family life cycle analysis in research on consumer behavior," Consumer Behavior, 2, 3.
- 3) Miller, Herman P., (1965). "Dimensions of poverty," The Poverty as a Public Issue, ed. Ben B. Seligman, 47.
- 4) Turner, Marshall L., Jr., (1967). "A new technique for measuring household changes," Demography, 4 (1), 344.
- 5) Ibid., 344-347.
- 6) Ibid., 344.

TABLE 1.--MATCHED HOUSEHOLDS BY GROSS CHANGES
IN COMPOSITION BETWEEN 1966 AND 1967
BY COLOR OF HEAD AND MEMBERS ADDED OR LOST

(Numbers in Thousands)

Matched Households by Type of Change in Membership	Total Households		White Head		Nonwhite Head		Percentage of households	
	Number	Percent	Number	Percent	Number	Percent	Poor	Nonpoor
All matched households.....	45,878	100.0	41,351	100.0	4,527	100.0	100.0	100.0
No change in members.....	37,980	82.8	34,538	83.5	3,442	76.0	82.4	82.6
Change in members.....	7,898	17.2	6,813	16.5	1,085	24.0	17.6	17.4
Households with a change in members.....	7,898	100.0	6,813	100.0	1,085	100.0	N.R.	N.R.
Households that only added members.....	2,082	26.4	1,785	26.2	297	27.4	N.R.	N.R.
Households that lost members.....	5,816	73.6	5,028	73.8	788	72.6	N.R.	N.R.
Households that only lost members.....	5,423	68.7	4,723	69.3	700	64.5	N.R.	N.R.
Households that added and lost members..	393	5.0	305	4.5	88	8.1	N.R.	N.R.

Source: Special tabulations of the 1967 Survey of Economic Opportunity basic data records.

N.R. - Not Relevant.

TABLE 2.--MATCHED HOUSEHOLDS THAT CHANGED IN COMPOSITION
BY TYPE OF CHANGE, COLOR OF HEAD, AND POVERTY
STATUS IN 1967

(Numbers in Thousands)

Matched Households by Type of Change in Composition	Total Households		White Head Households		Nonwhite Head Households		Below Poverty Line	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Households That Changed	7,898	100.0	6,813	100.0	1,085	100.0	1,046	100.0
Had Members Join	2,475	31.3	2,090	30.7	385	35.5	214	20.5
1 joined	2,228	28.2	1,908	28.0	320	29.5	182	17.4
2 joined	204	2.6	156	2.3	48	4.4	26	2.5
3+ joined	43	--	26	--	17	1.6	6	--
Had Members Leave	5,423	68.7	4,723	69.3	700	64.5	832	79.5
1 left	4,485	56.8	3,980	58.4	505	46.5	692	66.2
2 left	662	8.4	554	8.1	108	10.0	88	8.4
3+ left	276	3.5	189	2.8	87	8.0	52	5.0

Source: Special tabulations of 1967 Survey of Economic Opportunity basic data records

-- Less than 1.0 percent

TABLE 2a.--MATCHED HOUSEHOLDS THAT CHANGED IN
COMPOSITION BY NUMBER OF PERSONS
WHO JOINED OR LEFT

(Numbers in Thousands)

Households That Changed In Composition By Number of Persons Who Joined or Left	Total Households	Households That Had Members Join	Households That Had Members Leave	Households That Had Members Join and Leave
Total Households	7,898	2,475	5,423	393
1 person changed	6,713	2,228	4,485	297
2 persons changed	866	204	662	49
3+ persons changed	319	43	276	48
<u>PERCENT DISTRIBUTION</u>				
Total Households	100.0	100.0	100.0	100.0
1 person changed	85.0	90.0	82.7	75.6
2 persons changed	11.0	8.2	12.2	12.5
3+ persons changed	4.0	1.7	5.1	12.0

Source: Special tabulations of 1967 Survey of Economic Opportunity basic data records.

TABLE 3.--MATCHED HOUSEHOLDS THAT CHANGED IN COMPOSITION CLASSIFIED
BY COLOR OF HEAD, TYPE OF CHANGE, AND REASON OF CHANGE

(Numbers in Thousands)

Matched Households by Type of Change in Composition and Reason for Change	Total Households		White Head Households		Nonwhite Head Households	
	Number	Percent	Number	Percent	Number	Percent
Matched Households with a Change.....	7,898	N.R.	6,813	N.R.	1,085	N.R.
Reason children joined, - total.....	1,907	100.0	1,645	100.0	261	100.0
Born since February 1966.....	1,483	77.8	1,324	80.5	159	60.9
Parents moved in for job.....	39	2.0	29	1.8	11	4.2
Parents were divorced.....	74	3.9	52	3.2	22	8.4
Death in the family.....	14	--	11	--	3	1.1
Returned from an institution.....	13	--	12	--	1	--
Other.....	283	14.8	218	13.3	66	25.3
Reason Adults joined, - total.....	1,229	100.0	914	100.0	287	100.0
Moved in to take a job.....	157	12.8	120	12.8	38	13.2
To get married.....	213	17.3	170	18.1	42	14.6
Returning from the Armed Forces...	37	3.0	33	3.5	4	1.4
Divorced.....	110	9.0	91	9.7	19	6.6
Death in the family.....	86	7.0	60	6.4	26	9.1
Return from an institution.....	22	17.9	16	1.7	6	2.1
Other.....	603	49.1	450	47.8	153	53.3

Source: Special tabulations of the 1967 Survey of Economic Opportunity basic data records

N.R. - Not Relevant

-- Less than 1.0 percent

TABLE 3a.--MATCHED HOUSEHOLDS THAT CHANGED
IN COMPOSITION BY COLOR OF HEAD
AND REASON FOR CHANGE

(Numbers in Thousands)

Reason Person Left Household	Total Number of Leavers		White Heads		Nonwhite Heads	
	Number	Percent	Number	Percent	Number	Percent
Reason person left - total	5,259	100.0	4,670	100.0	589	100.0
To get married	762	14.5	652	14.0	110	18.7
Entered Armed Forces	1,686	32.1	1,533	32.8	153	26.0
Divorced	842	16.0	764	16.4	78	13.2
Died	423	8.0	335	7.2	89	15.1
Entered institution	1,328	25.3	1,196	25.6	132	22.4
Other	219	4.1	190	4.1	28	4.8

Source: Special tabulations of the 1967 Survey of Economic Opportunity basic data records.

TABLE 4.--MATCHED HOUSEHOLDS BY NUMBER OF PERSONS WHO
JOINED OR LEFT THE HOUSEHOLD BY TYPE OF
CHANGE AND INCOME OF PERSONS

(Numbers in Thousands)

Income of Joiners and Leavers	Matched Households with Income Contributing Members	Households that Added Members		Households that Lost Members	
		Number	Percent	Number	Percent
Number of households containing joiners or leavers.....	6,635	819	N.R.	5,816	N.R.
Total number of joiners and leavers.....	8,164	878	100.0	7,286	100.0
<u>Level of income for leavers and joiners</u>					
None.....	846	379	43.2	467	6.0
\$ 1.00 to \$1,499.....	6,289	188	21.4	6,101	83.7
\$1,500 to \$2,999.....	538	118	13.4	420	5.8
\$3,000 to \$4,999.....	205	101	11.5	104	1.4
\$5,000 or more.....	179	49	5.6	130	1.8
N.A.....	104	39	4.4	65	.9

Source: Special tabulations of the 1967 Survey of Economic Opportunity basic records.

N.R. - Not Relevant.

TABLE 5.--PERCENT OF FAMILY INCOME CONTRIBUTED BY PERSONS WHO ENTERED OR LEFT
THE MATCHED HOUSEHOLDS

Percent of Family Income Contributed	Total	Family Income		
		Under \$2,000	\$2,000 to \$4,999	\$5,000 and over
Total households.....	6,852	898	1,603	4,351
0 percent.....	4,887	694	1,161	3,032
1 - 9 percent.....	309	17	52	240
10 - 19 percent.....	279	12	48	219
20 - 29 percent.....	288	16	68	204
30 - 39 percent.....	194	5	41	148
40 - 49 percent.....	152	1	46	105
50 - 59 percent.....	120	10	27	83
60 - 69 percent.....	94	18	28	48
70 - 79 percent.....	87	1	45	41
80 - 89 percent.....	77	5	12	60
90 - 99 percent.....	365	119	75	171
<u>VERTICAL PERCENTS</u>				
Total households.....	100.0	100.0	100.0	100.0
0 percent.....	71.3	77.2	72.4	69.6
1 - 9 percent.....	4.5	1.8	3.2	5.5
10 - 19 percent.....	4.0	1.3	2.9	5.0
20 - 29 percent.....	4.2	1.7	4.2	4.6
30 - 39 percent.....	2.8	.5	2.5	3.4
40 - 49 percent.....	2.2	.1	2.8	2.4
50 - 59 percent.....	1.7	1.1	1.6	1.9
60 - 69 percent.....	1.8	2.0	1.7	1.1
70 - 79 percent.....	1.2	.1	2.8	.9
80 - 89 percent.....	1.1	.5	.7	1.3
90 - 99 percent.....	5.3	13.2	4.6	3.9

Source: Special tabulations of the 1967 Survey of Economic Opportunity
basic records