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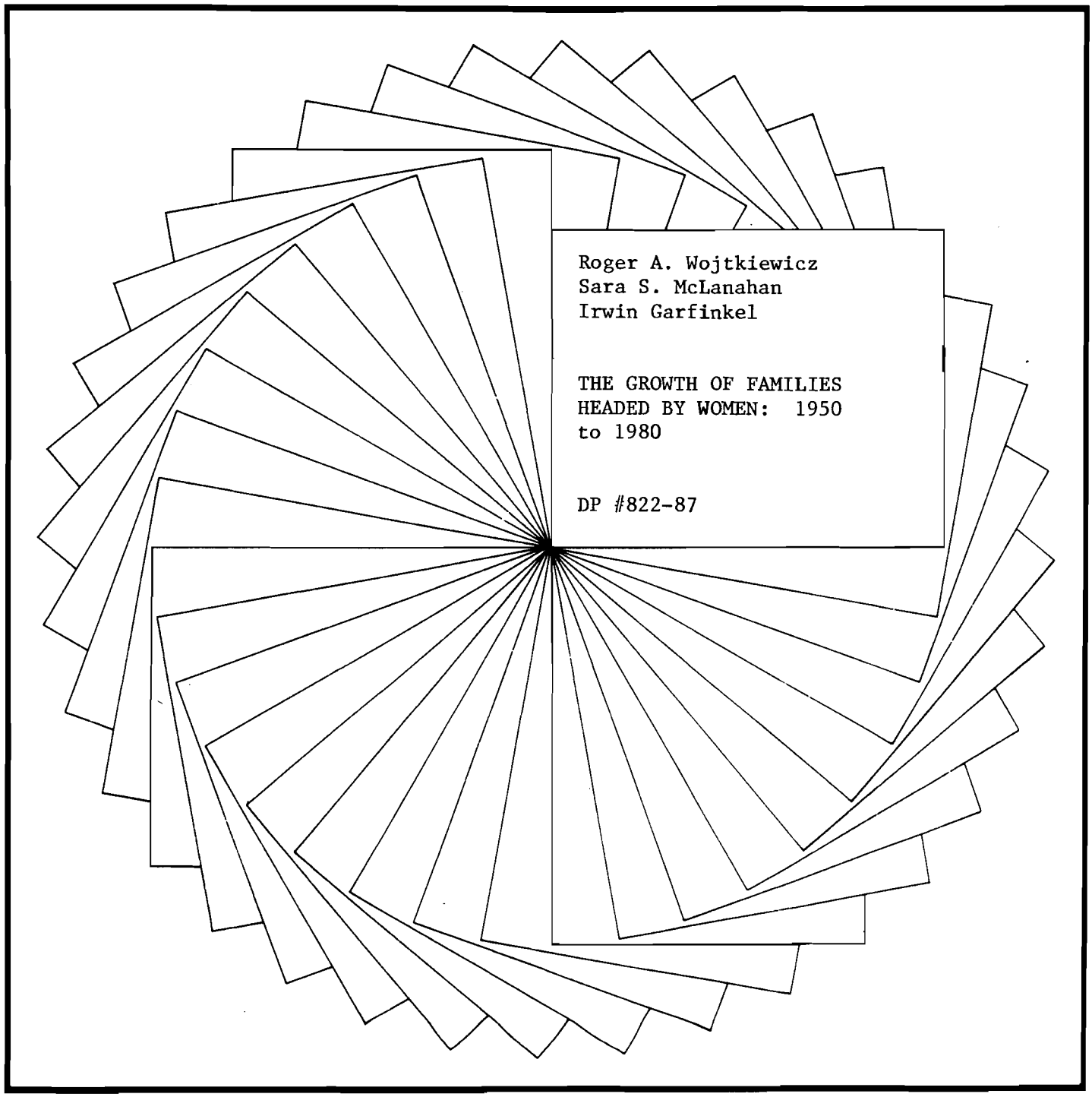

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The Growth of Families Headed by Women: 1950 to 1980

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Abstract

In recent decades the proportion of women with children who head their own households has increased dramatically. A number of factors have contributed: decrease in fertility, increase in divorce, increased propensity for women with children to establish independent households, decrease in remarriage, and increase in nonmarital births.

This paper uses U.S. Census data to analyze the impact of these major demographic components on the growth in female-headed families from 1950 to 1980.

The findings indicate that for white women, the major source of growth has been the increase in the number of formerly married mothers, which results from higher divorce rates and, more recently, lower rates of remarriage. For black women, much of the early growth in female-headed families was caused by an increase in formerly married mothers, but recent growth has come from declines in marriage and increases in births to never-married women.

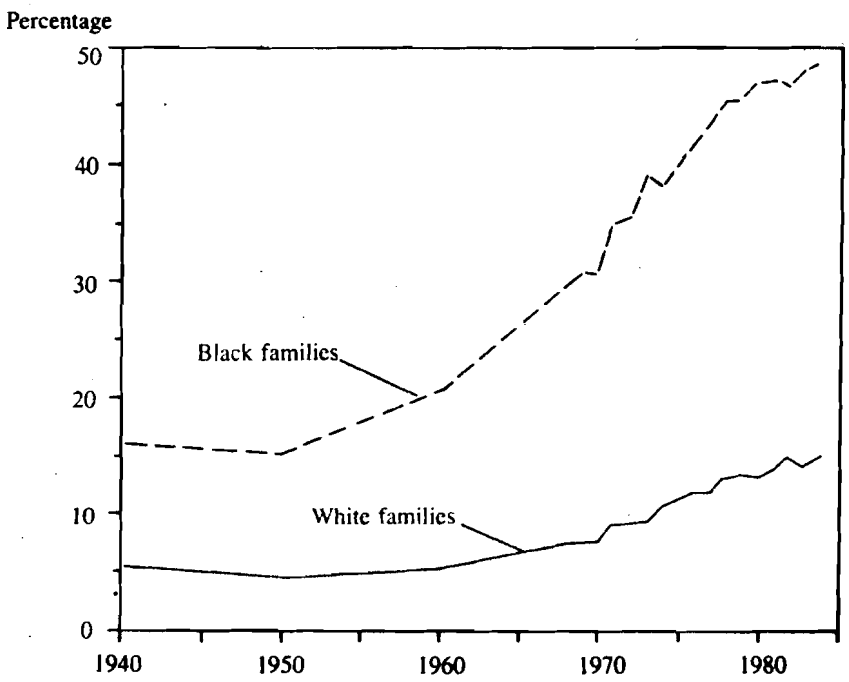
The Growth of Families Headed by Women: 1950 TO 1980

The proportion of all families headed by women has increased dramatically in recent decades. One impact of this change is that a larger proportion of children are living with single mothers than at any time in the past. If current conditions persist, one-half of all children born today will live in a female headed family at some time before reaching age 18 (Bumpass, 1984). While there is debate over the psychological effects of growing up in a female-headed family, the economic consequences are clear.[1] About half of mother-only families have incomes below the official U.S. poverty line as compared with only 13 percent of husband-wife families (Garfinkel and McLanahan, 1986). Thus, the increase in female headship has had a negative effect on the economic welfare of children.[2]

Trends by race in the proportion of families headed by women are shown in Figure 1 for the period 1940 to 1985. Since 1975, the figures have been reported annually. The trends for blacks and whites are similar in that both groups experienced small increases in female headship in the fifties and larger increases in the sixties and seventies. In addition, the rate of growth during the latter two periods was similar for both races. For whites, the proportion of all families headed by women grew 37 percent between 1960 and 1970 and 40 percent between 1970 and 1980. For blacks, growth was 37 percent and 35 percent in those two decades. The similarity in growth rates is surprising, since many analysts view female headship as a problem of the black community that has only recently affected whites. The focus on blacks is due to the fact that female-

Figure 1

Growth in Families Headed by Women, 1940-1985



Source: U.S. Census, 1940, 1950, 1960; Current Population Reports, 1967-1985, Series P-20.

headed families are more common among blacks and therefore the absolute increases are much greater.

In this paper we analyze the major demographic components underlying the growth in female-headed families from 1950 to 1980. We begin by describing the paths that lead to the formation of female-headed families. These paths, or sequence of statuses, illustrates the logic behind the construction of components for the decomposition analysis. Next, we discuss previous studies of the growth of female headship and compare them to the approach used here. Finally, we present findings from our own analysis.

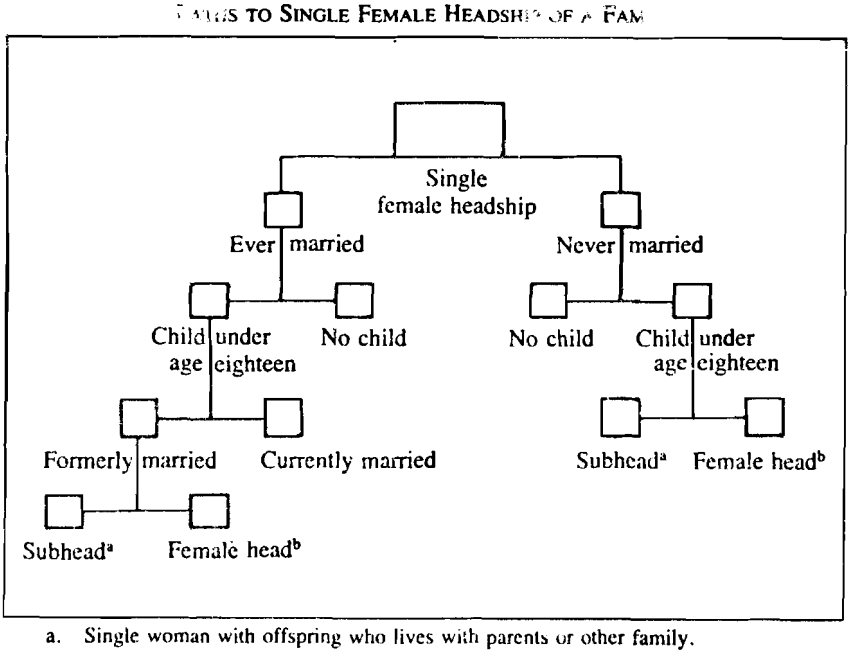
The findings indicate that for whites, the major source of growth has been the increase in formerly married mothers, which has resulted from higher rates of divorce and, more recently, lower rates of remarriage. For blacks the picture is different. Whereas much of the early growth in female-headed families was due to an increase in formerly married mothers, recent growth has come from declines in marriage and increases in births to never-married women.

PATHS TO FEMALE HEADSHIP

A woman who is the head of a family household has usually taken one of two paths (Figure 2). Her first decision is whether or not to marry. If she remains single, she is at risk of becoming a never-married female head. Reaching this status depends upon two additional decisions: whether she has a child and whether she lives independently in the event that she becomes a single mother. Of course the events may not occur in

Figure 2

Paths to Single Female Headship of a Family



a. Single woman with offspring who lives with parents or other family.
b. Lives independently as family headed by a single woman.

this sequence. Some never-married women become pregnant and then decide whether or not to marry.

For women who marry, the path to female headship depends upon three additional decisions: to have a child, to divorce, and to establish an independent household. Obviously, a woman does not always control the decision to end her marriage as in cases where she is widowed. Once a woman becomes a female head, she may leave that status in one of three ways: she may move in with a relative or unrelated household head, she may remarry, or her children may move out. Although only a small proportion of formerly married mothers live with their parents, a large proportion of never-married mothers do so (Sweet and Bumpass, 1987).[3]

The proportion of women who are female heads at any point in time depends on the choices women make and the rates at which they enter and exit the various statuses shown in Figure 2. Similarly, a change in the proportion of females heading families reflects a change in choices and rates of transition across statuses. An increase in female headship may be due to an increase in fertility, divorce, or the propensity to establish an independent household. It may also be due to a decrease in remarriage or an increase in nonmarital births.

The best way to evaluate the relative importance of different demographic changes to the growth of female-headed families is to use longitudinal data to follow change in the rates at which women move in and out of each of the statuses. Unfortunately such data do not exist for the period 1950 to 1980, nor is aggregate data available for all of the transition rates of interest. An alternative strategy is to examine change in the proportion of women occupying each status in 1950, 1960,

1970, and 1980. Changes in these proportions reflect the cumulative effect of changes in flows during the preceding decade. Although the results obtained from the latter approach are less precise than those obtained by using actual rates, they do increase our understanding of the dynamics underlying recent growth.

PAST RESEARCH

The use of cross-sectional data to study the demographic components of growth among female-headed families was introduced in the early seventies by Cutright (1974) and Ross and Sawhill (1975). Cutright examined growth over a thirty-year period (1940 to 1970), whereas Ross and Sawhill focused on the period from 1960 to 1970. At least two other studies have updated these results and have attempted to resolve inconsistencies in the earlier findings (Cooney, 1979; Smith and Cutright, 1985). All of these studies use somewhat different samples and different methods of analysis. Not surprisingly, they all reach somewhat different conclusions regarding the size of components. While most agree that marital disruption and the presence of children were major sources of growth of female-headed families during the sixties and seventies, Cutright (1974) and Smith and Cutright (1985) place much greater importance on changes in living arrangements than do other researchers.

Table 1 summarizes the major characteristics and conclusions of previous studies. To summarize briefly, the Cutright studies are restricted to women between the ages of 14 and 44, whereas Ross and Sawhill include all women over 17. The Cooney analysis attempts to reconcile the two

Table 1

Characteristics of Previous Studies of the Growth of Female Headed Families

Study	Sample	Period	Major Components of Growth
Cutright (1974)	Ever-married women, aged 14-44	1940-70	population growth; living arrangements
Ross and Sawhill (1975)	All women aged 18+	1960-70	population growth; marital disruption
Cooney (1979)	Women, aged 14-44, women 18+ New York, New Jersey, Pennsylvania	1960-70	population growth; living arrangements marital disruption
Smith and Cutright (1985)	Ever-married women, aged 14-44	1940-70	marital disruption
	All women, aged 14-44	1970-80	living arrangements

previous studies but her sample is restricted to New York, Pennsylvania, and New Jersey. Most important, the analyses differ in how they identify the pool of women at risk for becoming female householders. Cutright (1974) and Smith and Cutright (1985) use fertility histories, which determine whether a women has given birth to a child, whereas Ross and Sawhill (1975) look at whether a women currently lives with a child (own child). The former approach includes in its pool of single mothers women whose children live with their father, have been adopted, or have died, as well as women who currently live with their children. Thus, their living arrangement component measures changes in custody decisions, adoption, and mortality as well as changes in decisions to establish independent households.

METHODS OF ANALYSIS

In this paper we analyse the growth of female-headed families for three time periods: 1950-60, 1960-70, and 1970-80.[4] In each decade, the total number of females headed families is equal to the sum of formerly married female heads and never-married heads.

$$TFHF = FMFH + NMFH$$

The number of formerly married female heads can be expressed as the product of two components: the total number of women and the rate at which women are formerly married and heading their own households with children present. The headship rate component is in turn a product of four conditional rates: the rate at which women marry, the rate at which married women have their own children living with them, the rate at which

married mothers become formerly married, and the rate at which formerly married mothers head their own households.

Thus, the number of formerly married female heads can be expressed as a multiplicative sum of five components:

$$FMFH = T * (EM/T) * (EMC/EM) * (FMC/EMC) * (FMFH/FMC)$$

where T = total number of women, EM = number of ever-married women, EMC = number of ever-married women with children, FMC = number of ever-married mothers who are currently not married, and FMFH = the number of formerly married mothers who head their own households.

The number of never-married female heads can be expressed as the product of two components: the total number of women and the rate at which women are never married and heading their own households with children present. This headship rate component is a product of three conditional rates: the rate at which women remain unmarried, the rate at which unmarried women have their own children living with them, and the rate at which unmarried mothers head their own households.

The number of never-married female heads can be expressed as a multiplicative sum of four components:

$$NMFH = T * (NM/T) * (NMC/NM) * (NMFH/NMC)$$

where T = total number of women, NM = number of never-married women, NMC = number of never-married women with children, and NMFH = number of never-married mothers who head their own households.

Change in the number of female heads between two points in time is the sum of change in the number of formerly married female heads and

change in the number of never-married female heads. These two changes can each be decomposed into parts owing to change in the multiplicative components. Total change can thus be broken down into the following components:

Changes Attributable to Change in the Number of Formerly Married Heads

a) change in T holding constant other changes
b) change in EM/T holding constant other changes
c) change in EMC/EM holding constant other changes
d) change in FMC/EMC holding constant other changes
e) change in FMFH/FMC holding constant other changes
f) interaction between change in T and change in rate components
g) interaction between changes in rate components

Changes Attributable to Change in the Number of Never-Married Heads

h) change in T holding constant other changes
i) change in NM/T holding constant other changes
j) change in NMC/NM holding constant other changes
k) change in NMFH/NMC holding constant other changes
l) interaction between change in T and change in rate components
m) interaction between changes in rate components

The interaction represents the joint change in two or more factors that cannot be separated. In this analysis, we differentiate between the population size/rate interaction and the interaction among rates. This makes it possible to measure precisely the total contribution of rate changes to overall change. The detailed equations for the decomposition is given in the Appendix.[5]

Our approach differs from previous studies in several important respects. First, we include a component for the proportion of all women who are ever married (EM/T), which allows us to separate the effect of population growth from the effect of change in rates of first marriage. These two factors are combined in the Smith and Cutright and Ross and

Sawhill analyses, thereby inflating the population component during early decades (when marriage rates were rising) and deflating it during the seventies (when rates were falling).

Second, our components are based on a slightly different sequence of events from those of past studies. Here the sequence is from married (EM) to married with children (EMC) to divorced with children (FMC); in previous studies it is from married (EM) to divorced (FM) to divorced with children (FMC). Our approach provides more easily interpretable results because it incorporates the events in their usual time order. The advantage is that all of the components may be interpreted as rates, i.e., as the number of people who experienced an event divided by the number exposed to the event. Although the component for divorce in the earlier studies can be interpreted as a rate, the fertility component cannot. The latter is the ratio of divorced women with children to all divorced women. Given the usual order of events, divorced women will not bear children unless they remarry, and remarriage takes them out of the divorced population.

Finally, this approach differs from that of Smith and Cutright in that we include a broader age range of women (18 through 59) and identify single mothers by presence of children rather than fertility histories. The data are taken from the 1940, 1950, 1960, 1970, and 1980 PUS Census tapes.

RESULTS

Table 2 shows the number of women from age 18 through 59 by family status for whites and blacks in 1940, 1950, 1960, 1970, and 1980. One

Table 2

Number of Women (thousands) Aged 18 through 59 by Family Status, Race, and Year

	1940	1950	1960	1970	1980
White Women					
1. Total (T)	341,789	387,652	409,313	462,037	515,524
2. Ever married (EM)	265,098	329,812	358,117	390,079	416,508
3. Ever married with children (EMC)	150,613	188,236	229,505	239,433	234,122
4. Formerly married with children (FMC)	11,904	12,668	16,450	22,851	30,143
5. Formerly married female heads (FMFH)	8,424	8,721	12,875	19,312	26,456
6. Never married (NM)	76,691	57,840	51,196	71,958	99,016
7. Never married with children (NMC)	227	210	279	1,284	2,927
8. Never-married female heads (NMFH)	129	107	205	764	1,823
9. FMFH per 1000 women (FMFH * 1000/T)	24.65	22.50	31.45	41.80	51.32
10.NMFH per 1000 women (NMFH * 1000/T)	0.38	0.28	0.50	1.65	3.54
Black Women					
11. Total (T)	37,149	44,147	48,354	57,366	77,057
12. Ever married (EM)	30,394	38,085	40,870	45,075	52,015
13. Ever married with children (EMC)	13,285	16,662	22,424	27,529	31,038
14. Formerly married with children (FMC)	2,736	3,429	5,381	8,226	11,215
15. Formerly married female heads (FMFH)	1,915	2,272	3,997	7,078	10,075
16. Never married (NM)	6,755	6,063	7,484	12,291	25,042
17. Never married with children (NMC)	183	277	677	2,559	7,469
18. Never-married female heads (NMFH)	109	171	499	1,640	5,376
19. FMFH per 1000 women (FMFH * 1000/T)	51.55	51.46	82.66	123.38	130.75
20. NMFH per 1000 women (NMFH * 1000/T)	2.93	3.87	10.32	28.59	69.77

Source: Tapes: 1940, 1950, 1960, 1970, and 1980. U.S. Census Public Use Sample.

can see from Table 2 that the total number of women in this age range increased markedly between each time point (rows 1 and 11) as did the number of women who were formerly married female family heads (rows 5 and 15) and never-married female heads (rows 8 and 18). The two exceptions to this growth were formerly married and never-married white female heads in the 1940-50 decade.

Table 2 also reports the number of formerly married and never-married female heads per 1000 women (rows 9 and 10 and rows 19 and 20). The ratios decrease between 1940 and 1950 for formerly married and never-married white women and for formerly married black women, and increase for never-married black women. The ratios increase in all other decades for both blacks and whites, indicating that the propensity of women to head their own families was increasing. In the following analysis, we attempt to quantify how much of the growth between 1950 and 1980 was due to population increase and how much was due to changes in behavior.

Table 3 reports the proportion of women who occupied each status in 1950, 1960, 1970, and 1980. Table 4 shows the ratio of a proportion in a later year to the proportion in an earlier year. A ratio greater than one means that the proportion increased over the period and a ratio less than one means that the proportion decreased. Increases in proportions have a positive effect on the number of female-headed households whereas decreases have a negative effect.

According to Table 4, the proportion of white women who were ever married and the proportion of ever-married women who lived with children increased during the fifties but decreased thereafter. The proportion of ever-married white mothers who were formerly married and the proportion

Table 3

Proportion of Women Aged 18 through 59 in Family Statuses by Race and Year

	1950	1960	1970	1980
White Women				
Proportion of total women who have ever married (EM/T)	.851	.875	.844	.808
Proportion of ever-married women who have children (EMC/EM)	.571	.641	.614	.562
Proportion of ever-married mothers who are formerly married (FMC/EMC)	.067	.072	.095	.129
Proportion of formerly married mothers who are household heads (FMFH/FMC)	.688	.783	.845	.878
Proportion of total women who have never married (NM/T)	.149	.125	.156	.192
Proportion of never married women who have children (NMC/NM)	.004	.005	.018	.030
Proportion of never-married mothers who are household heads (NMFH/NMC)	.509	.735	.595	.623
Black Women				
Proportion of total women who have ever married (EM/T)	.863	.845	.786	.675
Proportion of ever-married women who have children (EMC/EM)	.437	.549	.611	.597
Proportion of ever-married mothers who are formerly married (FMC/EMC)	.206	.240	.299	.361
Proportion of formerly married mothers who are household heads (FMFH/FMC)	.663	.743	.860	.898
Proportion of total women who have never married (NM/T)	.137	.155	.214	.325
Proportion of never-married women who have children (NMC/NM)	.046	.090	.208	.298
Proportion of never-married mothers who are household heads (NMFH/NMC)	.617	.737	.641	.720

Note: Proportions are based on numbers in Table 2.

Table 4

Ratios of Proportions of Women Aged 18 through 59 in Family Statuses by Race and Year

	Change in Proportion		
	1960/ 1950	1970/ 1960	1980/ 1970
White Women			
Proportion of total women who have ever married (EM/T)	1.03	0.96	0.96
Proportion of ever-married women who have children (EMC/EM)	1.12	0.96	0.92
Proportion of ever-married mothers who are formerly married (FMC/EMC)	1.07	1.32	1.36
Proportion of formerly married mothers who are household heads (FMFH/FMC)	1.14	1.08	1.04
Proportion of total women who have never married (NM/T)	0.84	1.25	1.23
Proportion of never-married women who have children (NMC/NM)	1.25	3.60	1.67
Proportion of never-married mothers who are household heads (NMFH/NMC)	1.44	0.81	1.05
Black Women			
Proportion of total women who have ever married (EM/T)	0.98	0.93	0.86
Proportion of ever-married women who have children (EMC/EM)	1.26	1.11	0.98
Proportion of ever-married mothers who are formerly married (FMC/EMC)	1.17	1.25	1.21
Proportion of formerly married mothers who are household heads (FMFH/FMC)	1.12	1.16	1.04
Proportion of total women who have never married (NM/T)	1.13	1.38	1.52
Proportion of never-married women who have children (NMC/NM)	1.96	2.31	1.43
Proportion of never-married mothers who are household heads (NMFH/NMC)	1.19	0.87	1.12

Note: Proportions used in calculations are from Table 3; ratio of proportions equals proportion in later year divided by proportion in earlier year.

of formerly married white mothers who were household heads increased in all three periods.

Among white women, the proportion never married decreased during the first period and increased during the second two periods. The proportion of never-married women with children increased in each period, whereas the proportion who established their own households increased in the fifties and seventies and decreased in the sixties.[6]

Among black women, the proportion of ever-married women decreased during each period. The proportion of ever-married women with children increased during the first two periods but declined during the last period. The proportion of mothers who were formerly married and the proportion of formerly married mothers who were household heads increased during each period.

The proportion of black women who never married and the proportion of never-married women who were mothers increased consistently. The proportion of never-married mothers who were household heads increased during the fifties and seventies and declined during the sixties.

Tables 5 and 6 show for white and black women, respectively, the total growth in the number of female household heads caused by change in population size, changes in proportions in each status, interactions between changes in proportions, and interaction between changes in proportions and change in population size.

Tables 7 and 8 show the percentage of total growth attributable to the major demographic components. The first set of percentages show the total growth due to increases in formerly married female heads and the subcomponents of this growth. Although the subcomponents are based on

Table 5

Decomposition of Growth in the Number of Female Headed Families: Raw Numbers (thousands) by Family Status and Period for White Women

Growth due to change in:	Decomposition Components 1950-1960	1960-1970	1970-1980
Formerly Married Female Heads			
Population size	487	1659	2236
Proportion ever married	247	-451	-831
Proportion with children	1071	-544	-1627
Proportion formerly married	567	4268	6740
Proportion household heads	1194	1027	744
Proportion interactions	393	-67	-627
[Subtotal proportions]	[3472]	[4233]	[4399]
Population size/proportions interaction	194	545	509
[Subtotal formerly married female heads]	[4153]	[6437]	[7144]
Never-Married Female Heads			
Population size	6	27	88
Proportion never married	-17	50	178
Proportion with children	54	466	502
Proportion household heads	47	-39	36
Proportion interactions	4	-6	154
[Subtotal proportions]	[88]	[471]	[870]
Population size/proportions interaction	5	61	101
[Subtotal never-married female heads]	[99]	[559]	[1059]
Total growth	4252	6437	8203

Note: Decomposition components are calculated using the equations which appear in the Appendix; subtotals are in brackets.

Table 6

Decomposition of Growth in the Number of Female Headed Families: Raw Numbers (thousands) by Family Status and Period for Black Women

Growth due to change in:	Decomposition Components 1950-1960	1960-1970	1970-1980
Formerly Married Female Heads			
Population size	217	745	2430
Proportion ever married	-46	-281	-997
Proportion with children	578	452	-162
Proportion formerly married	377	980	1481
Proportion household heads	275	633	312
Proportion interactions	194	185	-211
[Subtotal proportions]	[1378]	[1969]	[423]
Population size/proportions interaction	131	367	145
[Subtotal formerly married female heads]	[1726]	[3081]	[2998]
Never-Married Female Heads			
Population size	16	93	563
Proportion never married	22	192	848
Proportion with children	168	649	709
Proportion household heads	33	-65	202
Proportion interactions	63	107	603
[Subtotal proportions]	[286]	[883]	[2362]
Population size/proportions interaction	27	165	811
[Subtotal never-married female heads]	[329]	[1141]	[3736]
Total growth	2055	4222	6734

Note: Decomposition components are calculated using the equations which appear in the Appendix; subtotals are in brackets.

Table 7

Decomposition of Growth in the Number of Female-Headed Families: Percentages by Family Status and Period for White Women

Growth due to change in:	1950-1960	1960-1970	1970-1980
Formerly married mothers	[44.3]%	[46.8]%	[52.2]%
Marriage	5.8	-6.4	-10.1
Marital fertility	25.2	-7.8	-19.8
Marital disruption and remarriage	13.3	61.0	82.1
Never-married mothers	[.9]	[7.4]	[8.3]
Nonmarriage	-0.4	0.7	2.2
Premarital fertility	1.3	6.7	6.1
Living independently	[29.2]	[14.1]	[9.4]
Formerly married mothers	28.1	14.7	9.0
Never-married mothers	1.1	-0.6	0.4
Population size	[11.6]	[24.1]	[28.4]
FMFH	11.5	23.7	27.3
NMFH	0.1	0.4	1.1
Interactions	[14.0]	[7.6]	[1.7]
Rates	9.4	-1.1	-5.7
Population/rates	4.6	8.7	7.4
Total growth	100%	100%	100%

Note: The components in this table are based on the raw numbers presented in Table 5; see the text for definitions of the components.

Table 8

Decomposition of Growth in the Number of Female-Headed Families: Percentages by Family Status and Period for Black Women

Growth to due change in:	1950-1960	1960-1970	1970-1980
Formerly married mothers	[44.1]%	[27.3]%	[4.8]%
Marriage	-2.2	-6.7	-14.8
Marital fertility	28.0	10.7	-2.4
Marital disruption and remarriage	18.3	23.3	22.0
Never-married mothers	[9.3]	[19.9]	[23.2]
Nonmarriage	1.1	4.5	12.6
Premarital fertility	8.2	15.4	10.6
Living independently	[15.0]	[13.5]	[7.6]
Formerly married mothers	13.4	15.0	4.6
Never-married mothers	1.6	-1.5	3.0
Population size	[11.4]	[19.8]	[44.5]
FMFH	10.6	17.6	36.1
NMFH	0.8	2.2	8.4
Interactions	[20.2]	[19.5]	[19.9]
Rates	12.5	6.9	5.8
Population/rates	7.7	12.6	14.1
Total growth	100%	100%	100%

Note: The components on this table are based on the raw numbers presented in Table 6; see the text for definitions of the components.

stocks rather than flows, they are discussed in terms of underlying rates. For example, increases in the proportion of ever-married women reflect changes in marriage rates, increases in the proportion of ever-married women with children reflect changes in marital fertility, and increases in the proportion of formerly married women with children reflect the net effect of changes in marital disruption and remarriage.[7]

The second set of percentages show the total growth due to increases in never-married female heads and the subcomponents of growth for this group. As before, part of the growth of this group is due to a decline in marriage, which increases the pool of women at risk for never-married motherhood, and part is due to an increase in premarital fertility.

The third and fourth set of percentages report the contribution of changes in living arrangements and growth in population size, divided among formerly married and never-married mothers. The last set of numbers reports the contribution of the interaction terms, divided into an interaction associated with joint change in population size and rates and an interaction associated with joint changes in rates.

THE PATTERN FOR WHITES

For whites, the increase in female-headed families during each decade was due primarily to an increase in the prevalence of formerly married mothers. This factor accounted for approximately 44 percent of the growth in the 1950s, 47 percent of the growth in the 1960s, and 52 percent of the growth in the 1970s. In comparison, increases in never-married mothers accounted for less than 1 percent in the 1950s and for a

little more than 7 and 8 percent during the 1960s and 1970s, respectively.

Although most of the overall increase since 1950 was due to an increase in formerly married mothers, the factors producing this growth changed significantly over time. Before 1960, growth was primarily the result of a large proportion of women marrying and having children--a fact that increased the pool of women at risk of becoming formerly married mothers. After 1960, the marriage and fertility rates dropped, and subsequent growth was due primarily to increases in divorce rates and declines in remarriage. Some of the growth after 1960 was also due to an increase in never-married mothers.

An additional factor in each time period was the increase in the propensity of single women with children to establish independent households. This type of change in living arrangements accounted for about 30 percent of the growth in the 1950s and for about 14 percent and 9 percent of the growth in the 1960s and 1970s.

THE PATTERN FOR BLACKS

Perhaps the most striking feature in the pattern for blacks--and the factor most different from whites--is the extent to which growth in the population of never-married mothers has replaced growth in the population of formerly married mothers (Table 8). Whereas more than 44 percent of the increase in families headed by single black women during the 1950s was due to increases in formerly married mothers, this component accounted for less than 30 percent of the growth in the 1960s and less than 5 percent in the 1970s.

The decline in the proportion of formerly married mothers was offset by an increase in never-married mothers. The latter accounted for about 9 percent of the growth in the 1950s, 20 percent in the 1960s, and 23 percent in the 1970s. During the 1950s and 1960s most of the increase in never-married mothers was due to an increase in premarital fertility. After 1970 it was due to increases in nonmarriage (which increased the proportion of women at risk for a premarital birth) and increases in fertility. Since premarital fertility rates among black women were going down throughout the seventies, the fertility component may reflect change in the propensity of young black women who give birth to keep their own children, as opposed to arranging for a formal or informal adoption.

Increases in the propensity to establish independent households accounted for a significant proportion of the growth among black women in the 1950s and 1960s, mostly among formerly married women. In the 1970s, however, it had only a minor effect. The contribution of population growth, on the other hand increased dramatically. In the 1970s, over 44 percent of the growth in black female-headed families was due to increases in the number of black women.

Finally, a prominent feature of growth among blacks is the interaction components, which accounted for approximately 20 percent of the total growth during each period. During the 1960s and 1970s, the interaction effect was due primarly to the joint effect of growth in population size and change in rates.

CONCLUSION

This paper decomposes the growth in female-headed families during three periods: 1950-60, 1960-70, and 1970-80. The analysis goes beyond

previous studies in several ways. First, and most important, we examine growth in the entire population of female heads--never-married female heads as well as ever-married heads--over three decades. Past studies have looked either at both types of female headship for one decade (Ross and Sawhill, 1975) or at one type--ever-married female heads--over a long period (Smith and Cutright, 1985).

Second, the components of growth are defined somewhat differently from past studies. In particular, the construction used here follows the common sequence of events leading to female headship, which makes it possible to interpret the components as rates. One advantage of this approach is that the growth in formerly married and never-married mothers can be decomposed into portions due to change in first marriage, change in fertility, and, for those who marry, change in marital disruption/remarriage. Hence, it can be seen that increases in marital disruption in the 1960s and 1970s would have led to even more female-headed families among whites, had it not been for the offsetting effect of declines in first marriage and fertility.

Third, the analysis is based on microdata for the entire 1950-80 period, whereas the Smith and Cutright analysis is based on published tables. The microdata make it possible to identify women who currently live with children and to distinguish between single mothers who live in subfamilies and single mothers who head their own households. Finally, we divide interaction effects into a component associated with joint change in population size and rates and a component associated with joint changes in rates. The latter provides an estimate of total effect due to changes in rates.

The estimates for the components of growth among ever-married women are consistent with those reported by Smith and Cutright with respect to the importance of the effect of marital disruption. The studies differ, however, in their estimates of the importance of change in living arrangements. The discrepancy is probably due to differences in defining and identifying single mothers. As noted earlier, Smith and Cutright use fertility histories to determine whether or not a women ever had a child, whereas the child component in this study is based on whether a women is living with her own child. Since the Smith and Cutright living-arrangement component measures "child retention" as well as the decision to establish an independent household, one would expect it to be larger than the estimate in this study, However, the disparity is greater than one would expect, especially among blacks.[8]

A more detailed analysis of the living-arrangement component is beyond the scope of this paper. However, the different results are puzzling and deserve further study. Future work might include an additional component measuring whether or not a women had given birth plus a component measuring whether or not she was currently living with a child.[9] In this case, the equations would be

$$FMFH = T * EM/T * EMF/EM * EMC/EMF * FMC/EMC * FMFH/FMC$$

$$NMFH = T * NM/T * NMF/NM * NMC/NMF * NMFH/NMC$$

where EMF/EM (NMF/NM) = proportion of ever-married (never-married) women who had given birth and EMC/EMF (NMC/NMF) = proportion of women who had given birth and currently lived with their child. In these equations the

EMC/EMF and NMC/NMF components measure the child-retention component and the FMFH/FMC component measures the decision to live independently.

More generally, future researchers should also consider incorporating an age component in their analyses which would allow us to evaluate the effect of shifts in the age structure on the growth of female headship. We know that the number of young women, as a proportion of the 14-44-year-old population, increased during the 1960s and 1970s as the baby-boom cohorts came of age. Since young women are more likely to divorce than older women, it is possible that some of the increase in formerly married female heads is due to a change in age composition. On the other hand, given a divorce or premarital birth, young single mothers are more likely to marry (or remarry) than their older counterparts, and therefore it is possible that the shift in the age structure may have actually offset some of the growth in female headship.

Appendix

Decomposition Equation

Decomposition Components

Formerly married female heads

Population size: $[T(2)-T(1)][\frac{EM(1)}{T(1)}][\frac{EMC(1)}{EM(1)}][\frac{FMC(1)}{EMC(1)}][\frac{FMFH(1)}{FMC(1)}]$

Proportion ever married: $[T(1)][\frac{EM(2)}{T(2)} - \frac{EM(1)}{T(1)}][\frac{EMC(1)}{EM(1)}][\frac{FMC(1)}{EMC(1)}][\frac{FMFH(1)}{FMC(1)}]$

Proportion with children: $[T(1)][\frac{EM(1)}{T(1)}][\frac{EMC(2)}{EM(2)} - \frac{EMC(1)}{EM(1)}][\frac{FMC(1)}{EMC(1)}][\frac{FMFH(1)}{FMC(1)}]$

Proportion formerly married: $[T(1)][\frac{EM(1)}{T(1)}][\frac{EMC(1)}{EM(1)}][\frac{FMC(2)}{EMC(2)} - \frac{FMC(1)}{EMC(1)}][\frac{FMFH(1)}{FMC(1)}]$

Proportion household heads: $[T(1)][\frac{EM(1)}{T(1)}][\frac{EMC(1)}{EM(1)}][\frac{FMC(1)}{EMC(1)}][\frac{FMFH(2)}{FMC(2)} - \frac{FMFH(1)}{FMC(1)}]$

Proportion interaction: $[T(1)][\frac{EM(2)}{T(2)} - \frac{EM(1)}{T(1)}][\frac{EMC(2)}{EM(2)}\frac{FMC(2)}{EMC(2)}\frac{FMFH(2)}{FMC(2)} - \frac{EMC(1)}{EM(1)}\frac{FMC(1)}{EMC(1)}\frac{FMFH(1)}{FMC(1)}]$

Proportion interaction: $[T(1)][\frac{EM(1)}{T(1)}][\frac{EMC(2)}{EM(2)} - \frac{EMC(1)}{EM(1)}][\frac{FMC(2)}{EMC(2)}\frac{FMFH(2)}{FMC(2)} - \frac{FMC(1)}{EMC(1)}\frac{FMFH(1)}{FMC(1)}]$

Proportion interaction: $[T(1)][\frac{EM(1)}{T(1)}][\frac{EMC(1)}{EM(1)}][\frac{FMC(2)}{EMC(2)} - \frac{FMC(1)}{EMC(1)}][\frac{FMFH(2)}{FMC(2)} - \frac{FMFH(1)}{FMC(1)}]$

Population size/proportion interaction: $[T(2)-T(1)][\frac{EM(2)}{T(2)}\frac{EMC(2)}{EM(2)}\frac{FMC(2)}{EMC(2)}\frac{FMFH(2)}{FMC(2)} - \frac{EM(1)}{T(1)}\frac{EMC(1)}{EM(1)}\frac{FMC(1)}{EMC(1)}\frac{FMFH(1)}{FMC(1)}]$

- Continued -

Appendix, Continued

Never-married female heads

Population size: $[T(2)-T(1)][\frac{NM(1)}{T(1)}][\frac{NMC(1)}{NM(1)}][\frac{NMFH(1)}{NMC(1)}]$

Proportion never married: $[T(1)][\frac{NM(2)}{T(2)} - \frac{NM(1)}{T(1)}][\frac{NMC(1)}{NM(1)}][\frac{NMFH(1)}{NMC(1)}]$

Proportion with children: $[T(1)][\frac{NM(1)}{T(1)}][\frac{NMC(2)}{NM(2)} - \frac{NMC(1)}{NM(1)}][\frac{NMFH(1)}{NMC(1)}]$

Proportion household heads: $[T(1)][\frac{NM(1)}{T(1)}][\frac{NMC(1)}{NM(1)}][\frac{NMFH(2)}{NMC(2)} - \frac{NMFH(1)}{NMC(1)}]$

Proportion interaction: $[T(1)][\frac{NM(2)}{T(2)} - \frac{NM(1)}{T(1)}][\frac{NMC(2)}{NM(2)}\frac{NMFH(2)}{NMC(2)} - \frac{NMC(1)}{NM(1)}\frac{NMFH(1)}{NMC(1)}]$

Proportion interaction: $[T(1)][\frac{NM(1)}{T(1)}][\frac{NMC(2)}{NM(2)} - \frac{NMC(1)}{NM(1)}][\frac{NMFH(2)}{NMC(2)} - \frac{NMFH(1)}{NMC(1)}]$

Population size/proportion interaction: $[T(2)-T(1)][\frac{NM(2)}{T(2)}\frac{NMC(2)}{NM(2)}\frac{NMFH(2)}{NMC(2)} - \frac{NM(1)}{T(1)}\frac{NMC(1)}{NM(1)}\frac{NMFH(1)}{NMC(1)}]$

Notes:

(1) See Table 2 for definition of abbreviations.
(2) "1" refers to period one and "2" refers to period two.

Notes

[1]For reviews of the literature on the psychological consequences of growing up in a single-parent family, see Hetherington, Camara and Featherman (1983).

[2]Mary Jo Bane (1986) distinguishes between "event caused" and "reshuffled" poverty and argues that black female-headed families often represent the latter type. In cases of "reshuffled" poverty, increases in female headship can be viewed as a consequence rather than a cause of poverty.

[3]The sequence for ever-married women may vary. A woman may marry, divorce, and then have a child. Bumpass and McLanahan (1987) estimate that about 7 percent of all births are to formerly married women.

[4]We do not decompose changes in the 1940-50 decade, since there was no growth in female headship during this period.

[5]Our decomposition approach is similar to the approach used in Winsborough and Dickinson (1972) and Smith and Cutright (1986).

[6]The decline was probably due to a change in age composition during the sixties. The population of never-married female heads was increasingly composed of teenage mothers, who were more likely to live at home than older mothers.

[7]The correspondence between proportions and rates (stocks and flows) is not perfect, but the components are reasonable proxies.

[8]Increases in child retention could be due to changes in adoption practices or changes in infant/child mortality. Both have declined during the past several decades. In Cooney's comparison of the Cutright and Ross and Sawhill methodologies, she found that in 72.5 percent of

formerly married white women (aged 14-44) who had ever had a child were living with their own child in 1960 as compared with 74.2 in 1970. For blacks the numbers were 59.8 and 75.2 respectively. This suggests that increase in child retention cannot account for the difference in living-arrangment components, at least not among whites in the 1960 to 1970 period. For blacks the increase in child retention was much greater and might well account for the difference.

[9]Smith and Cutright (1985) first proposed defining components in this way.

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