

# Trends over time in the educational attainments of single mothers

by Peter Brandon

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## Introduction

Over the last three decades, high school dropout rates among minority members have decreased. Fewer blacks, fewer Hispanics, and fewer people in poor rural regions are dropping out of high school, and rates of high school graduation among these groups are catching up to those of whites.<sup>1</sup>

In light of this finding, one might conclude that completing high school is a universally shared phenomenon among all groups. Not so. Single mothers on welfare—an important group, not necessarily defined along racial and ethnic lines—remain an exception. Despite significant increases in the incidence of out-of-wedlock childbearing among all women,<sup>2</sup> their dropout rates remain extremely high. This finding is troubling, especially when this study finds that single mothers who graduate from high school have consistently, over the last twenty-five years, been far less likely to receive public assistance than those without high school diplomas.

In this article, I use data from the Current Population Survey (CPS) to trace high school dropout rates among single mothers and to track welfare<sup>3</sup> participation rates among single mothers with varying amounts of schooling.<sup>4</sup> I seek to answer several questions: (1) How has the distribution of educational attainment among single mothers on welfare changed over time? (2) Have high school dropout rates for black and white single mothers on welfare converged? (3) How has welfare participation changed among single mothers in different age cohorts? (4) Have welfare participation rates among single mothers who have attained different educational levels converged or diverged? (5) Have welfare rates for black and white single mothers with the same level of education converged?

## The sample

To generate time series that represent the educational attainments and welfare participation of single mothers, I pooled twenty-five years of the March supplements of the CPS.<sup>5</sup> For every March, starting in 1968 and ending in 1992, I

identified single mothers aged 18 or older who either headed households or headed subfamilies within households.

I have included subfamilies headed by single mothers, because a single mother does not necessarily live alone with her children. If the CPS lists her as the household head, I call the household mother-headed; if she is not the household head, but she and her children live with others, they constitute a subunit within a household, which may or may not be mother-headed. To head either a subfamily within a household or a household, mothers had to have at least one co-residing biological or adopted child younger than 18.

The total sample size over the twenty-five years was 77,512, large enough to permit arraying the data for blacks and whites across all twenty-five years by welfare receipt and by educational attainment.

Across all years, mothers reported *completed* years of schooling<sup>6</sup> and whether public assistance was a source of income over the preceding twelve months. With this information, and appropriate survey sampling weights, I created the twenty-five-year time series representative of the educational attainments and welfare receipt of single mothers. Other demographic data, also collected every March, permit stratifying the time series by race, by region,<sup>7</sup> and by age cohort. Where possible, the estimates are compared to estimates generated from other sources of data and to numbers calculated from administrative records.

These data clearly suit my aim: depicting trends in the educational levels of single mothers.<sup>8</sup> However, two caveats to the analyses need mentioning.

First, a variable that measures *completed* years of schooling has advantages over a variable that simply measures years of schooling. Yet even this alternative measure has drawbacks. It cannot distinguish mothers who dropped out of high school but subsequently obtained a general equivalency diploma (GED) from mothers who completed high school as adolescents. This is less of a concern for the early time series estimates. In later years, however, especially after enactment of the Family Support Act in 1988, this problem could bias downward the estimates of dropout rates among single mothers reporting receipt of welfare, if receipt of transfer income is tied to enrollment in adult education programs.

Second, in restricting the sample to single mothers aged 18 and older, I exclude other mothers who may be eligible for

welfare: married mothers with unemployed husbands, female guardians (e.g., foster mothers and grandmothers), and teenage mothers younger than 18 and still in high school. To include a sample of teenage mothers, still possibly attending high school, would simply confound the results.<sup>9</sup> As for the other excluded women, they represent a small fraction of the caseload of all adult welfare mothers, and invariably they have been much less likely than single mothers to get welfare.<sup>10</sup>

## Trends in educational attainment

To begin with, I characterize changes over time in the distribution of educational attainments among only that subsample of single mothers who reported receipt of public assistance. I specify three educational categories: dropped out of high school, graduated from high school only, and attended post-secondary school.<sup>11</sup>

Figures 1 and 2 display how the distribution of educational attainment has altered over time among black and white single mothers on welfare, according to these three categories. The time series show that high school dropout percentages between these black and white mothers have converged. Moreover, this convergence is indisputably due to a rapid decline in dropouts among black single mothers rather than big changes in dropouts among white single mothers. So, today, unlike a quarter of a century ago, most black and white single mothers who receive welfare are high school graduates.

Though declining high school dropout among welfare mothers is encouraging, and even unsurprising to some, these dropout rates have persistently remained at least one-and-a-half times higher than those of single mothers not receiving welfare. The recurring gap between dropout rates of welfare mothers and those of other single mothers is repeatedly demonstrated in the following results, contained in Tables 1, 2, and 3.

Table 1 summarizes high school dropout rates for the full sample. It shows that by 1992, for instance, black and white single mothers receiving welfare were more than twice as likely to have dropped out of high school than were nonrecipient mothers. Throughout the 1980s, the same trend is evident.

Even after possible effects of age cohorts are controlled, the same tendencies are exhibited in Tables 2 and 3. In Table 2, dropout rates from 1968 until 1992 for single mothers aged 18–29 are presented. Between those receiving and not receiving welfare, a huge gap in dropout rates—for both races—is evident. In 1992, less than 20 percent of black and white single mothers not receiving welfare were high school dropouts, but about 40 percent of black and white single mothers on welfare, in that same year, were high school dropouts. Without belaboring the point, the same tendency is

seen in Table 3, which is for the age cohort of mothers aged between 30 and 44. If anything, the tendency is more pronounced.

Results in these three tables also show that, since 1968, high school dropout rates for black and white single mothers have been converging. When the sample is divided between those receiving and those not receiving welfare, convergence between black and white mothers still occurs. What is exceptional is that high school dropout rates for single mothers who receive welfare *have not* intersected over time with those of single mothers who do not receive welfare. A gap in high school completion for welfare recipients spans the twenty-five years for both racial groups.

The foregoing tables and figures show that although the distribution of educational attainment among single mothers has changed, differentials in educational attainment persist between mothers on welfare and those not on welfare. But what has happened to welfare receipt rates among single mothers attaining different levels of education? Have they converged or diverged over the last twenty-five years? Figures 3 and 4 and Table 4 address this question.

Trend lines in Figures 3 and 4 are probably what most people would expect: Both black and white single mothers who dropped out of high school have the highest rates of welfare receipt. And again as anticipated, black and white single mothers who have received postsecondary schooling have the lowest rates of welfare receipt.

Figures 3 and 4 also show that within each race the differential in public assistance receipt rates between high school dropouts and high school graduates fluctuates. These oscillations fail to indicate convergence or divergence across the years. There might be a slight change over time in the odds of receiving welfare for a single mother, black or white, with a high school diploma, when compared to the odds for a single mother, black or white, without a high school diploma, but this change seems nominal.

The marked change worth noting, however, comes from comparing welfare receipt rates for blacks and whites sharing the same educational level. Because, since the late 1970s, welfare receipt has declined among black women at each level of completed schooling, whereas, over time, welfare receipt rates have risen among white single mothers who have either dropped out of or graduated from high school, a growing similarity is evident in receipt rates of black and white single mothers with the same levels of education. Why is this convergence taking place?

One factor that could help explain the convergence is that demographic changes have occurred among those white women who are most likely to drop out of high school. White dropouts today could be an extremely disadvantaged population, more like black dropouts, since high school grad-

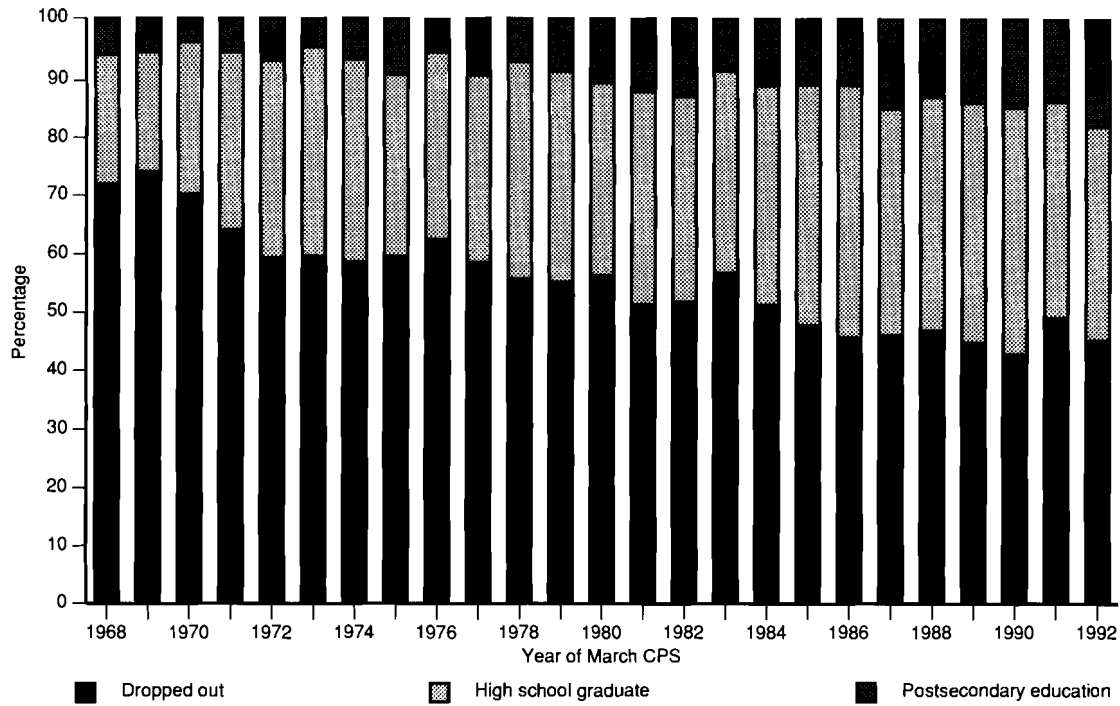


Figure 1. Educational Trends of White Single Mothers on Welfare

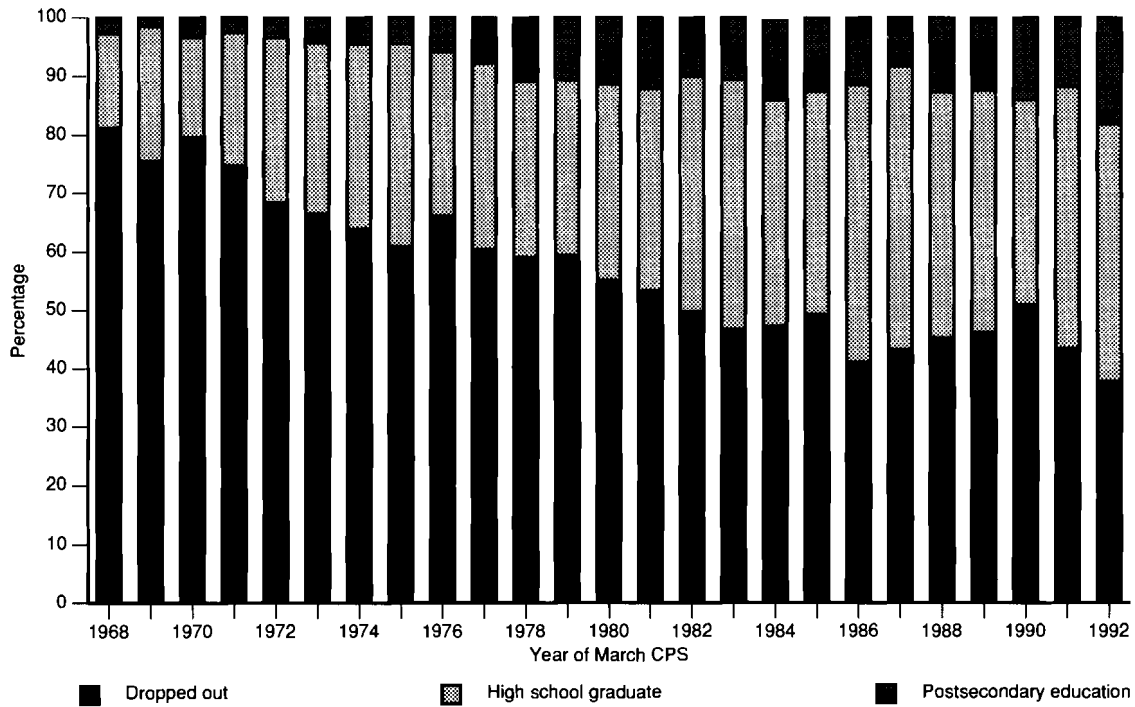


Figure 2. Educational Trends of Black Single Mothers on Welfare

**Table 1**  
**High School Dropout Rates of Single Mothers,**  
**by Race and Welfare Participation**

	Blacks			Whites		
	All <sup>a</sup>	Receipt <sup>b</sup>	No Receipt	All <sup>a</sup>	Receipt <sup>b</sup>	No Receipt
1968	.67	.81	.62	.35	.73	.31
1969	.60	.75	.54	.36	.73	.33
1970	.56	.78	.47	.33	.70	.29
1971	.58	.74	.50	.33	.63	.28
1972	.52	.66	.42	.33	.62	.29
1973	.49	.66	.38	.33	.60	.28
1974	.51	.64	.40	.30	.61	.24
1975	.46	.60	.37	.31	.58	.26
1976	.45	.65	.31	.28	.60	.22
1977	.47	.61	.36	.29	.58	.24
1978	.42	.57	.30	.27	.52	.22
1979	.46	.58	.37	.26	.53	.21
1980	.36	.53	.26	.28	.55	.22
1981	.38	.51	.31	.25	.49	.20
1982	.36	.46	.29	.25	.47	.20
1983	.33	.46	.27	.25	.55	.20
1984	.35	.45	.27	.25	.54	.20
1985	.31	.49	.21	.24	.49	.19
1986	.27	.39	.20	.23	.46	.18
1987	.32	.43	.26	.24	.47	.18
1988	.34	.47	.25	.23	.47	.18
1989	.29	.47	.20	.25	.49	.20
1990	.31	.52	.22	.24	.40	.20
1991	.31	.46	.23	.24	.50	.18
1992	.23	.37	.16	.23	.44	.17
N =	19,380	7,185	12,195	58,132	9,840	48,292

Source: Current Population Survey, March Supplements, 1968–1992.

Note: Sample is single mothers aged 18–64.

<sup>a</sup>Full sample, not conditioned upon welfare receipt.

<sup>b</sup>Those single mothers who reported positive amounts of public assistance monies over last calendar year.

**Table 2**  
**High School Dropout Rates of Single Mothers Aged 18–29,**  
**by Race and Welfare Participation**

	Blacks			Whites		
	All <sup>a</sup>	Receipt <sup>b</sup>	No Receipt	All <sup>a</sup>	Receipt <sup>b</sup>	No Receipt
1968	.56	.76	.51	.27	.52	.26
1969	.49	.74	.43	.27	.64	.25
1970	.42	.70	.34	.24	.74	.22
1971	.46	.68	.38	.25	.57	.22
1972	.41	.57	.33	.27	.56	.25
1973	.39	.56	.30	.28	.53	.24
1974	.40	.59	.29	.24	.55	.20
1975	.37	.52	.29	.27	.52	.22
1976	.33	.49	.25	.25	.58	.20
1977	.42	.56	.33	.26	.56	.21
1978	.36	.50	.26	.24	.53	.20
1979	.37	.48	.30	.25	.54	.21
1980	.32	.47	.24	.26	.58	.20
1981	.38	.50	.29	.26	.48	.21
1982	.31	.39	.25	.25	.45	.21
1983	.29	.40	.23	.26	.53	.21
1984	.31	.40	.24	.25	.51	.20
1985	.31	.49	.20	.26	.51	.21
1986	.27	.36	.22	.25	.44	.20
1987	.31	.41	.24	.25	.49	.21
1988	.33	.41	.27	.26	.50	.21
1989	.30	.47	.20	.28	.55	.23
1990	.35	.55	.24	.26	.36	.23
1991	.34	.48	.25	.27	.51	.21
1992	.25	.38	.16	.23	.41	.18
N =	9,867	3,620	6,247	32,911	4,775	28,136

Source: Current Population Survey, March Supplements, 1968–1992.

<sup>a</sup>Full sample, not conditioned upon welfare receipt.

<sup>b</sup>Those single mothers who reported positive amounts of public assistance monies over last calendar year.

uation among whites is now nearly universal.<sup>12</sup>

Another factor that may account for the convergence is that rates of nonmarital births among older white women have increased.<sup>13</sup> If rising rates of nonmarital births among whites were pushing up their welfare receipt rates while educational gains by blacks gradually altered their welfare participation, then changes would occur in the relative proportions of whites and blacks receiving welfare. Eventually these demographic shifts would cause welfare receipt differentials between the races to narrow.<sup>14</sup>

One final consideration that may drive the convergences is breakups of cohabitations among whites. Over the last 20 years, more and more whites have chosen to live together before marrying or instead of marrying.<sup>15</sup> Some of these

unions do in fact lead to marriages; some do not. Break-downs of cohabitations among whites would add to the population of white single mothers, however. The loss of a partner may make a sizable proportion of these women eligible for welfare and lead them to receive welfare. This compositional change among the population of white single mothers is a plausible reason why welfare receipt differentials between the races have closed.

Table 4 lists the percentage differences in the proportions of blacks and whites receiving welfare for each year and for each educational category. Overall, differentials have declined, chiefly for dropouts. For most of the seventies, at least 20 percent more black single mothers who were dropouts received welfare than did white single mothers who were dropouts. Since 1986, however, the percentage

Table 3

High School Dropout Rates of Single Mothers Aged 30–44,  
by Race and Welfare Participation

	Blacks			Whites		
	All <sup>a</sup>	Receipt <sup>b</sup>	No Receipt	All <sup>a</sup>	Receipt <sup>b</sup>	No Receipt
1968	.73	.80	.69	.41	.83	.34
1969	.65	.71	.60	.45	.76	.38
1970	.60	.77	.49	.40	.62	.34
1971	.60	.72	.52	.38	.64	.29
1972	.57	.69	.46	.34	.59	.26
1973	.53	.70	.39	.37	.63	.26
1974	.56	.66	.43	.36	.63	.27
1975	.50	.66	.35	.32	.57	.22
1976	.54	.77	.30	.30	.55	.21
1977	.49	.65	.34	.31	.54	.24
1978	.43	.62	.27	.27	.45	.22
1979	.47	.63	.35	.25	.49	.18
1980	.35	.59	.20	.27	.48	.21
1981	.32	.46	.25	.22	.48	.16
1982	.38	.48	.29	.23	.47	.16
1983	.35	.48	.28	.23	.54	.16
1984	.33	.48	.23	.25	.57	.17
1985	.27	.43	.18	.19	.42	.14
1986	.24	.40	.15	.19	.47	.13
1987	.29	.43	.23	.19	.44	.12
1988	.32	.53	.20	.18	.43	.11
1989	.21	.40	.12	.20	.39	.15
1990	.22	.42	.13	.19	.41	.15
1991	.24	.42	.15	.18	.47	.12
1992	.17	.33	.10	.20	.46	.14
N =	7,158	2,792	4,366	18,553	4,155	14,398

Source: Current Population Survey, March Supplements, 1968–1992.

<sup>a</sup>Full sample, not conditioned upon welfare receipt.

<sup>b</sup>Those single mothers who reported positive amounts of public assistance monies over last calendar year.

difference between the proportion of black single-mother dropouts receiving welfare and the proportion of white single-mother dropouts receiving welfare has been well below 20 percentage points, except for 1990.

Figures 3 and 4 do not contradict my prior findings displaying upward shifts in the distribution of educational attainment for these single mothers on welfare. (See Figures 1 and 2.) Just because in later years of the time series mothers receiving welfare were more likely to be high school graduates<sup>16</sup> does not mean that the *effect* of graduating from school on the likelihood of welfare receipt is weaker relative to its effects in the past. In fact, some could interpret the long-lasting differences in welfare receipt rates among mothers with and without high school degrees as prima facie evidence

Table 4

Percentage Differences in Rates of Welfare Receipt  
between Black and White Single Mothers,  
by Educational Level

	High School Dropouts	High School Graduates	Postsecondary
1968	15%	14%	05%
1969	17	18	02
1970	22	11	06
1971	16	14	05
1972	27	22	10
1973	25	19	09
1974	26	26	14
1975	18	22	05
1976	23	20	11
1977	21	24	16
1978	24	21	17
1979	18	18	21
1980	21	15	13
1981	13	17	10
1982	20	24	15
1983	10	20	12
1984	18	22	15
1985	23	13	13
1986	17	16	12
1987	08	19	04
1988	14	15	10
1989	16	12	10
1990	21	10	06
1991	13	18	07
1992	13	13	10

Source: Current Population Survey, March Supplements, 1968–1992.

establishing the value of policy efforts aimed at lowering dropout rates among single mothers.

### Significance of the trends

Single mothers have made progress in educational attainment over the last twenty-five years. High school dropout rates of black and white single mothers are converging. Yet the rate of decline in dropout rates for single mothers (black and white) who have received welfare is so slow that their dropout rates remain considerably higher than those of other single mothers. Dropout rates among mothers on welfare have been lowered sufficiently, however, that now more than half of all single mothers receiving welfare are high school graduates. Since, through all twenty-five years, lower rates of public assistance receipt have been maintained among

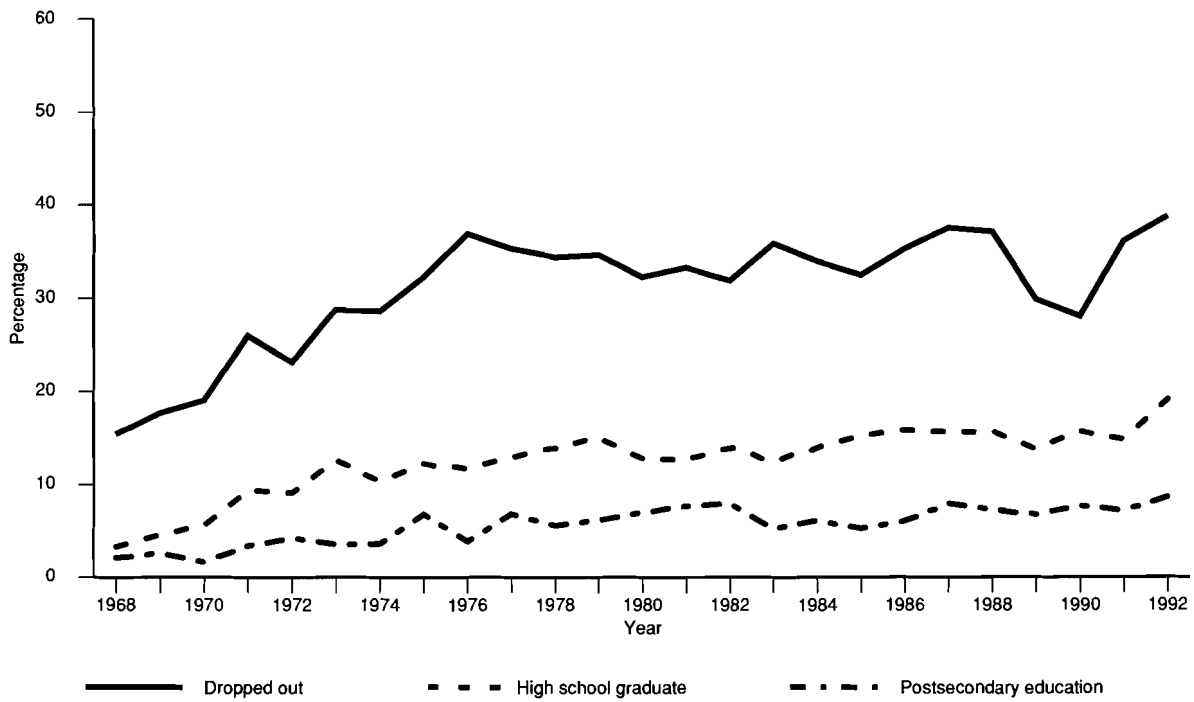


Figure 3. Welfare Receipt of White Single Mothers, by Educational Level

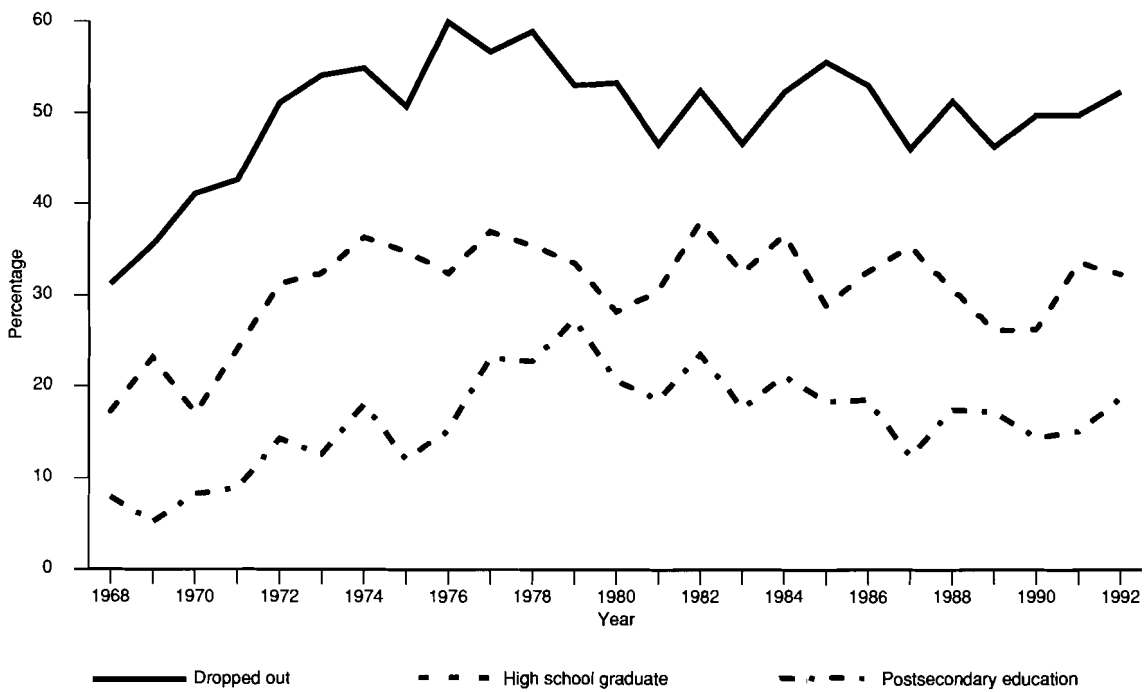


Figure 4. Welfare Receipt of Black Single Mothers, by Educational Level

those single mothers possessing a high school diploma, the increase in educational attainment is a hopeful sign. Finally, rates of public assistance receipt for black and white mothers with the same amount of education are approaching each other.

These time series results also tell a story about comparability of alternative sources of data that contain information about single mothers on welfare. Table 5 lists in the first column several of the yearly CPS estimates of dropout rates among single mothers who received welfare. The next five columns provide equivalent estimates that were calculated from other scientifically based samples.<sup>17</sup> Table 5 shows that estimates of dropout rates vary across each survey, even after the same group of single mothers receiving welfare was selected from these alternative samples.<sup>18</sup> This variation across estimates emphasizes the difficulties in pinpointing the proportion of single mothers on welfare who are high school dropouts. A single, reliable estimate of this proportion would undoubtedly help policymakers plan the training components, often considered essential, of welfare programs. Perhaps one of the estimates presented in Table 5 is the true estimate but this cannot be known for sure.

There is, however, surprising similarity between the CPS estimates in Table 5 and estimates of dropout rates that are generated from administrative records—another alternative source of data on single mothers receiving welfare. The last column in Table 5 summarizes a broader set of statistics that are contained in the federal government's *Green Book*<sup>19</sup> on the educational attainments of mothers receiving AFDC. If the figures based upon the *Green Book* are used to estimate the percentage of mothers receiving welfare who are high school dropouts, the resulting percentages coincide with CPS percentages in column 1.

Some disparities between the CPS estimates and estimates from administrative records should be expected. Methods caseworkers use to gather information from single mothers or inaccuracies in the information that single mothers provide caseworkers are factors accounting for the differences. Since income and asset levels determine eligibility for AFDC and educational levels do not, recordings by caseworkers of single mothers' net wealth are probably more precise than their recordings of single mothers' educational attributes.<sup>20</sup> Moreover, in states where single mothers' educational levels are very low and homogeneous, relative to other states, there is presumably even less emphasis on recording educational levels exactly. On the other hand, single mothers may misreport or fail to report their educational levels to caseworkers. Such misreporting of educational levels by single mothers occurs in CPS data as well.<sup>21</sup>

The differences between the columns in Table 5 notwithstanding, commonalities between the CPS estimates and estimates based on administrative data suggest that the two data sources produce comparable estimates of high school

dropouts among single mothers receiving welfare. The National Integrated Quality Control System's (NIQCS) monthly sample of cases, on which administrative data are based,<sup>22</sup> apparently generates samples from which reliable statistics can be drawn. One must remember, however, that tabulated estimates of welfare mothers' educational levels cannot be generalized to all single mothers.

The trends outlined here suggest that public policy should continue to strongly promote high school graduation among single mothers, particularly since welfare receipt remains higher among high school dropouts than among other single mothers, black or white.

Furthermore, these findings signal the need for policies that encourage adolescent females to complete high school. Completing high school, and having improved chances of employment or entering postsecondary schools, without the responsibility of children, seems a better alternative than attaining a GED while on welfare and caring for children. In any event, the present policy goal of enabling single mothers to achieve long-term economic well-being through their attachments to the labor market, rather than through their dependence on the welfare system, will remain elusive if many still fail to finish high school. ■

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<sup>1</sup>See Robert Hauser, "Measuring Adolescent Educational Transitions among African Americans, Hispanics, and Whites," IRP Discussion Paper no. 951-91, University of Wisconsin-Madison, 1991; Robert Kominski, "Estimating the National High School Dropout Rate," *Demography*, 27 (May 1990), 303-311; Mary J. Frase, "Dropout Rates in the United States: 1988," Analysis Report, NCES 89-600, National Center for Education Statistics (Washington, D.C.: U.S. GPO, 1989); Gerald David Jaynes and Robin M. Williams, Jr., eds., *A Common Destiny: Blacks and American Society*, Committee on the Status of Black Americans, Commission on Behavioral and Social Sciences, National Research Council (Washington, D.C.: National Academy Press, 1989); Robert Hauser and H. S. Phang, "Trends in High School Dropout among White, Black, and Hispanic Youth, 1973 to 1989," IRP Discussion Paper no. 1007-93, University of Wisconsin-Madison, 1993.

<sup>2</sup>According to the U.S. Bureau of the Census, the incidence of out-of-wedlock childbearing increased mostly among women in their twenties and thirties. Current Population Surveys (CPS) indicate that about 36% of never-married women in their thirties in 1992 had a child, whereas in 1982 only 24% had a child. Since 1982, proportions of never-married women having a child increased for whites, blacks, and Hispanics. See U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 470, *Fertility of American Women, June 1992* (Washington, D.C.: U.S. GPO, 1993).

<sup>3</sup>Welfare here consists of Aid to Families with Dependent Children and general assistance.

<sup>4</sup>The author would like to thank Robert Hauser for his support of this project and Bill Prosser for asking the initial question. Help that Larry Bumpass gave me with the NSFH data, Dan Meyer's criticisms, and Jay Dixon's assistance in constructing the CPS data are appreciated as well.

<sup>5</sup>For a description of the CPS, see U.S. Bureau of the Census, *The Current Population Survey: Design and Methodology*, Technical Paper 40 (Washington, D.C.: U.S. GPO, 1978).

**Table 5**  
**Estimates from Seven Sources of Data on High School Dropout Rates among**  
**Single Mothers Receiving Welfare**

	CPS	Census	SIPP <sup>a</sup>	NSFH <sup>b</sup>	NLSY <sup>c</sup>	PSID <sup>d</sup>	<i>Green Book</i> <sup>e</sup>
1969							
All	73.0%	NA	NA	NA	NA	NA	77.0%
1970							
Blacks	78.0	74.0% <sup>f</sup>	NA	NA	NA	68.0%	NA
Whites	70.0	64.0 <sup>f</sup>	NA	NA	NA	66.0	NA
1975							
All	59.0	NA	NA	NA	NA	60.0	63.0
1979							
All	56.0	NA	NA	NA	55.0%	55.0	58.0
1980							
Blacks	53.0	53.0 <sup>g</sup>	NA	NA	60.0	47.0	NA
Whites	55.0	47.0 <sup>g</sup>	NA	NA	46.0	63.0	NA
1985							
Blacks	49.0	NA	43.0	NA	52.0	45.0	NA
Whites	49.0	NA	53.0	NA	57.0	53.0	NA
All	49.0	NA	48.0	NA	56.0	49.0	NA
1986							
Blacks	39.0	NA	60.0	NA	52.0	40.0	NA
Whites	46.0	NA	47.0	NA	45.0	53.0	NA
All	45.0	NA	53.0	NA	47.0	46.0	47.0
1987							
Blacks	43.0	NA	43.0	NA	52.0	42.0	NA
Whites	47.0	NA	53.0	NA	47.0	59.0	NA
All	46.0	NA	49.0	NA	48.0	50.0	NA
1988							
Blacks	47.0	NA	45.0	40.0%	57.0	46.0	NA
Whites	47.0	NA	51.0	37.0	48.0	59.0	NA
All	46.0	NA	48.0	38.0	50.0	52.0	48.0
1990							
Blacks	52.0	47.0 <sup>f</sup>	—	—	56.0	NA	NA
Whites	40.0	39.0 <sup>f</sup>	—	—	41.0	NA	NA
All	46.0	43.0	—	—	45.0	NA	47.0

**Notes:** NA = Not applicable or not available. — = Not computed. Percentages rounded to the nearest integer. "All" means blacks and whites combined (Hispanics excluded from analyses).

<sup>a</sup>Survey of Income and Program Participation: Weighted estimates calculated from Wave 2 for all survey panels; estimates for unmarried female guardians aged 18 to 64 who reported receipt of AFDC in any one of the four preceding survey reference months. These estimates are not inflated by GED attainment.

<sup>b</sup>National Survey of Families and Households: Weighted estimates for black and white unmarried mothers aged 19 or older who reported receipt of welfare over preceding year. Welfare could include receipt of food stamps. Lower estimates could serve as a lower bound given age truncation and the survey's question on welfare receipt, which does not distinguish food stamp receipt from AFDC receipt.

<sup>c</sup>National Longitudinal Survey of Youth: Weighted cross-sectional estimates for unmarried female guardians aged 18 to 64 who reported receipt of AFDC over preceding calendar year. These estimates are not inflated by GED attainment. (Sample used is not the oversampling of blacks and poor whites.)

<sup>d</sup>Panel Study of Income Dynamics: Weighted estimates for black and white mothers aged 18 to 64 who are single, divorced, widowed, or separated and are household heads. (Mothers heading subfamilies within households are considered household heads if they once left their parents' household and returned.) Mothers reported receipt of AFDC over preceding calendar year. Higher estimates should be expected due to the nature of the PSID, smaller N's for whites, and inability to capture all subfamilies. These estimates are not inflated by GED attainment.

<sup>e</sup>The 1993 *Green Book*, data on AFDC characteristics, 1969–1990: Estimates based on Table 31, p. 696 (U.S. House of Representatives, Committee on Ways and Means, *Overview of Entitlement Programs: 1993 Green Book* [Washington, D.C.: U.S. GPO, 1993]). Data generated from Office of Family Assistance, Administration for Children and Families, and Congressional Budget Office. Data are for the federal fiscal year October through September, except for 1969 (May), 1975 (May), and 1979 (March). All percentages are based on the average monthly caseload during the year. Data after 1987 include the territories; for years after 1983, education is for all AFDC adult recipients and GED attainment is not known.

<sup>f</sup>Based upon 5% state sample: Estimates for black and white unmarried mothers, aged 18–64, who reported receipt of welfare over preceding calendar year. Mothers either head households or head subfamilies within households. 1970 is based on a 1/100 file from the 5% state sample. 1990 is based on full 5% state sample.

<sup>g</sup>Based upon Sample B, which is a 1/100 sample: Estimates for black and white unmarried mothers, aged 18–64, who reported receipt of welfare over preceding calendar year. Mothers either head households or head subfamilies within households.



<sup>6</sup>The CPS educational attainment question was, “What is the highest grade or year of regular school that . . . attended?” and “Did . . . complete that grade or year?” Persons who “attended” grades higher than twelve are counted as college entrants—this, of course, may be false. I group those reporting more than twelve completed years of schooling into the postsecondary category.

<sup>7</sup>I have analyzed these trends across all four regions of the country, but for brevity I leave them unreported. The most recognizable trend is brisk gains in educational attainment among single mothers living in the South. Their high school dropout rate now approximates that of single mothers living elsewhere.

<sup>8</sup>Choices such as staying in school, receiving welfare, or having a child are not made in a vacuum, however. These data contain much that could help us understand the underlying factors affecting these salient decisions. But my purpose here is not to model welfare participation decisions or infer the causal factors driving these trends. Instead, I report and describe trends only, which are instructive in their own right.

<sup>9</sup>For these twenty-five years of CPS data, an average of 5% of teenage mothers aged 16 ( $N = 16,016$ ) reported receiving welfare. For teenage mothers in the sample aged 17 ( $N = 15,508$ ) an average of 7% reported getting welfare. Analogous figures by race and year are available from the author upon request.

<sup>10</sup>The author has analyzed the rate of welfare participation among married mothers over time and can provide, upon request, estimates of these rates.

<sup>11</sup>The sample is still too small for more refined time trend analyses, like tabulating educational attainments by respondents’ marital histories, or partitioning educational attainments into four or more categories.

<sup>12</sup>See Hauser, “What Happens to Youth after High School?” *Focus* 13:3 (Fall and Winter 1991), pp. 1–13.

<sup>13</sup>See U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics, *Monthly Vital Statistics Report*, Vol. 41, No. 9, Supplement, February 25, 1993, Table 17.

<sup>14</sup>The trends for the subsample of black mothers, displayed in Figure 4, support the argument by Robert Moffitt that the AFDC caseload peaked in the late sixties and early seventies, and since then it has tapered off and declined slightly (see Robert Moffitt, “Incentive Effects of the U.S. Welfare System: A Review,” *Journal of Economic Literature*, 30 [March 1992], 1–61). Yet Figure 3 shows that there have been *secular increases* in rates of welfare receipt among white single mothers—a result inconsistent with his contention.

<sup>15</sup>See Larry L. Bumpass and James A. Sweet, “National Estimates of Cohabitation,” *Demography*, 26 (1989), 615–625; N. G. Bennett, A. K. Blanc, and D. E. Bloom, “Commitment and the Modern Union: Assessing the Link between Premarital Cohabitation and Subsequent Marital Stability,” *American Sociological Review*, 53 (1988), 127–138; William Axinn and Arland Thornton, “The Relationship between Cohabitation and Divorce: Selection or Causal Influence?” *Demography*, 29 (1992), 357–374.

<sup>16</sup>This could be the GED effect discussed earlier.

<sup>17</sup>I choose these five surveys because each survey has been used to study the determinants of single-mother families and single-mother families’ welfare participation decisions, labor market attachments, schooling choices, child care arrangements, and housing circumstances. Each survey has also had, to varying degrees, an impact on policies designed to help single-mother families.

<sup>18</sup>Notes in Table 5 explain how the surveys differ from each other and how estimates were calculated from each survey. Obviously, differences in estimates can be due to alternative sampling strategies, different populations under study (some samples, for instance, are for select cohorts or income groups), diverse methods of collecting data, sampling errors, and nonsampling errors.

<sup>19</sup>This is done by adding the percentages for those with an eighth-grade education or less to the percentages for those with only one to three years of high school and dividing by the converse of the percentages in the “unknown” row of Table 31 of the *1993 Green Book* (U.S. House of Representatives, Committee on Ways and Means, *Overview of Entitlement Programs: 1993 Green Book* [Washington, D.C.: U.S. GPO, 1993], Table 31, “AFDC Characteristics, 1969–91,” pp. 696–698). The table contains other information, as well. All data in Table 31 of the *Green Book* are based upon administrative records.

<sup>20</sup>The last row of Table 31 in the *1993 Green Book* shows that in 1990, for example, no information was available on the educational attainments of about 50% of the mothers in the sample. For other years there is also much missing data. Why this proportion of missing data has grown so rapidly over the years is another question deserving attention.

<sup>21</sup>See “Appendix C: Definitions, Explanations, and Comparability of Data,” in U.S. Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, No. 174, *Money Income of Households, Families, and Persons in the United States: 1990* (Washington, D.C.: U.S. GPO, 1991).

<sup>22</sup>This sampling procedure is referred to in the *1993 Green Book*, p. 695.