

THE 1998 OHIO POVERTY REPORT

DECEMBER 1999

This report should be cited as follows:
"The 1998 Ohio Poverty Report,"
prepared and distributed by
the Office of Strategic Research,
Ohio Dept. of Development, December 1999.

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INTRODUCTION

Clients of the Office of Strategic Research frequently request current information about poverty and the near-poor in Ohio. Data from the Census Bureau help answer some of their questions. This report covers changes from 1976 through 1998. Historical trends are displayed in tables 1 and 2. Table 3 provides some detailed comparisons of the results from the 1980 and 1990 censuses. Tables 4 through 8 offer more detail about people from the 1990 census onward. Tables 9 through 12 cover the same time for households and families. All data are for the state; data for metropolitan areas, counties or cities are not available in this report.

Defining the abbreviations and terms used makes it easier to interpret data from the Census Bureau. *CPS* and *PUMSA* refer to the Current Population Survey and Public Use Microdata Sample A. *Persons for Whom Poverty Status is Determined* means the civilian non-institutional population, and further excludes unrelated children under the age of 15 years—essentially foster children—from the calculations. A householder is the person who owns or rents the residence occupied. *Family* refers to a householder who lives with at least one related person. *Households* are the sum of primary family and non-family householders. Subfamilies are families within the family of the householder. A mother and her son living with her father is an example of a related subfamily. A related subfamily such as this (and any income which it has) are included as part of the primary family for poverty calculations—it is not counted as a separate family. Unrelated subfamilies and unrelated individuals are excluded from household and family poverty calculations because they neither own nor rent the residence. However, subfamily members and unrelated individuals, with the exception mentioned above, are included in persons for whom poverty status is determined. *Poor* means that the person or household has an income or lives in a household with an income below 100 percent of the poverty level. *Near-poor* refers to people and households whose income ranges from 100 to 132 percent and/or 133 to 184 percent of the poverty level. The poverty threshold for a household varies with the number of persons in the household and their ages.

Tables 4 and 5 compare data at three levels of poverty for 1989 and later years. Tables 6 through 8 compare 1989 with 1998, differing only in the poverty level for which data are displayed—below 100, 133 and 185 percent. These levels are used because they are frequently requested by state agencies. It is possible to develop estimates for any level of poverty, but estimates below 100 percent will be less reliable than estimates at or above 100 percent of the poverty level.

It is possible to develop estimates for segments of the population not shown herein, but standard errors could be calculated only if the Census Bureau provides parameters for the formulas. The reliability of these estimates depends on the sample sizes. For any given sample size, percentages are more reliable than absolute numbers. CPS-based estimated numbers that are less than 75,000 are considered unreliable. Percentages also are more useful for comparisons because they account for the changing size of the population base. Some segments of the population are so small

that the Census Bureau does not publish parameters for computing a standard error. (For example, see the CPS data on female-headed households with at least one child, but no husband present.) Explaining significant changes in the number or percentage below a poverty level is beyond the scope of this report.

SYNOPSIS

During the years covered by this report, there has been a slight increase in the number and percentage of poor people and households in Ohio. (CPS data show the increase occurred from 1980 to 1981, with some fluctuations, but little significant change since—see table 1.) This has been true for most age groups and most kinds of households. The exceptions have been persons ages 65 and over, non-family households, and remaining families (*i.e.*, they are not married-with-at-least-one-child, nor are they female-headed-with-at-least-one-child-but-no-husband-present). The number of poor persons 65 and over has not changed significantly, while the percentage has declined. The percentage of remaining families in poverty in 1989 was essentially unchanged from 1979, and the percentage of poor non-family households was slightly lower. (See table 3.)

In any given year, poverty generally was greatest in the younger age groups: children (ages 0-17) and young adults (ages 18-24). Poverty was highest among female-headed households with at least one child, and lowest among married couples with at least one child and the remaining families. Non-family households fell in between these extremes. (See tables 1 through 3.)

The number of poor people in Ohio was estimated at 1,253,000 in 1998—11.2 percent of the persons for whom poverty status was determined. These figures are slightly lower than are those for 1989 (which come from the 1990 census), but not significantly different. In other words, the differences between 1989 and 1998 probably reflect only sampling variability. The same may be said when the near-poor are included. (See tables 4 and 5.)

However, a significant difference appears when the population is segmented into age groups. The percentages of young adults who were poor and/or near-poor appear to have declined between 1989 and 1998. The differences are unlikely to have occurred by chance. (Technical problems in testing differences for this age group temper this conclusion—the details of which are discussed in the Technical Notes.) (See tables 6 through 8.)

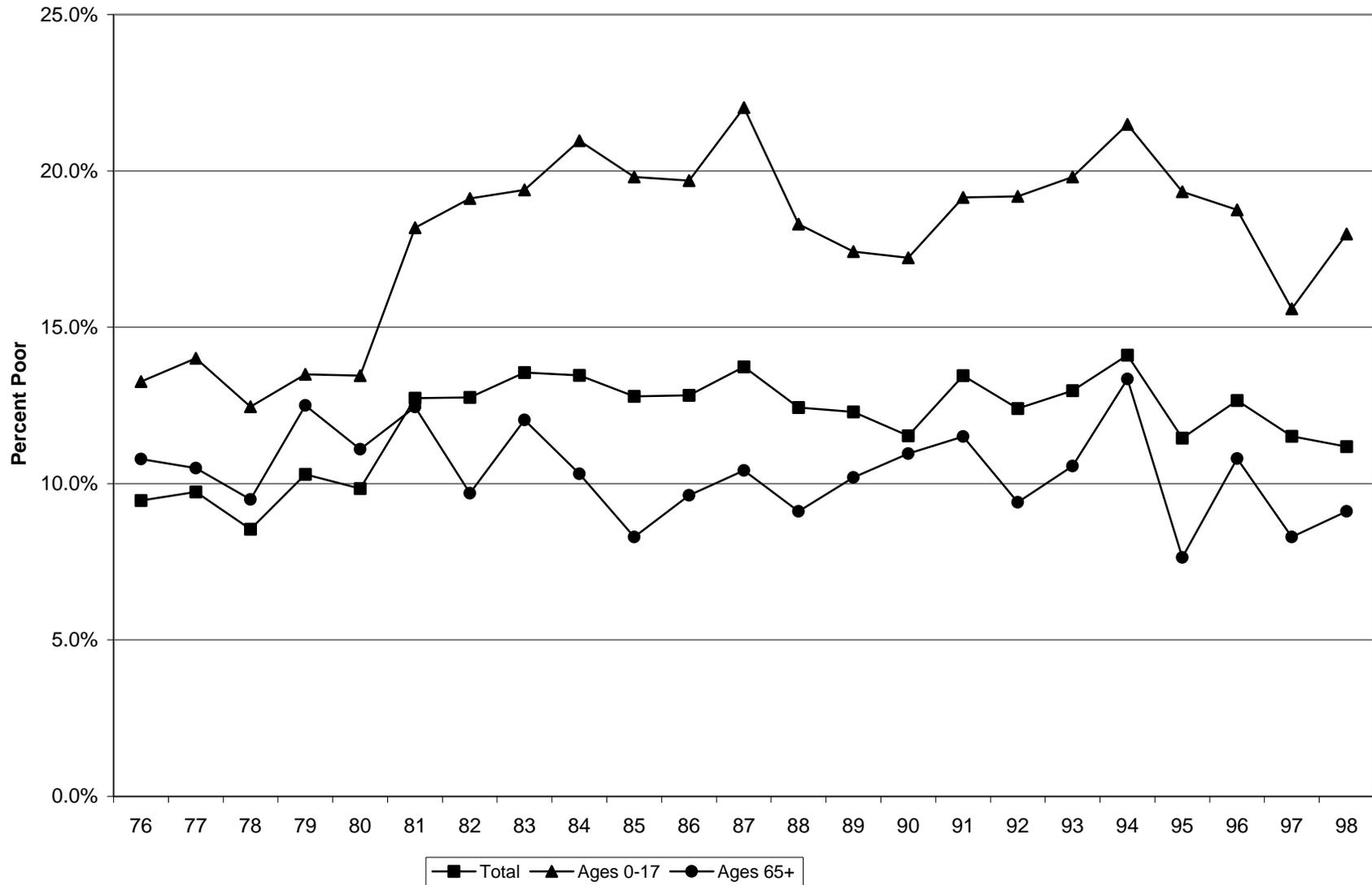
Only the percentages of poor and near-poor households appear significantly lower in 1998 than 1989; the numbers of such households are not significantly different. There were no significant changes when considering families, suggesting that the declines were concentrated among non-family households. However, parameters are unavailable for testing this idea. (See tables 9 through 12.)

Little weight should be given to marginally significant differences involving CPS data.

The number of such tests in this report is sufficient to warrant concern about differences arising (or failing to arise) from random variability. See the Technical Notes section for more detail.

Historical Estimates of Poverty in Ohio: 1976-98

Persons for Whom Poverty Status Was Determined



Source: U.S. Census Bureau.

TABLE 1: HISTORICAL ESTIMATES OF POVERTY AMONG PERSONS IN OHIO FOR WHOM POVERTY STATUS WAS DETERMINED
(numbers in thousands, except percentages)

Year and Source	Persons for Whom Poverty Status was Determined			Age Group														
				0--17			18--24*			25--44			45--64			65 & Up		
	In Poverty			In Poverty			In Poverty			In Poverty			In Poverty			In Poverty		
	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%
1998 CPS	11,201	1,253	11.2%	2,931	527	18.0%	1,016	137	13.4%	3,354	279	8.3%	2,540	186	7.3%	1,360	124	9.1%
1997 CPS	11,212	1,291	11.5%	3,013	470	15.6%	963	148	15.4%	3,474	304	8.7%	2,314	190	8.2%	1,448	120	8.3%
1996 CPS	11,254	1,424	12.7%	3,004	563	18.8%	1,026	151	14.7%	3,576	339	9.5%	2,190	213	9.7%	1,458	158	10.8%
1995 CPS	11,211	1,285	11.5%	3,004	581	19.3%	1,021	106	10.4%	3,458	340	9.8%	2,323	150	6.5%	1,405	107	7.6%
1994 CPS	11,139	1,571	14.1%	3,085	663	21.5%	1,074	199	18.5%	3,415	375	11.0%	2,131	151	7.1%	1,374	183	13.3%
1993 CPS	11,264	1,461	13.0%	3,130	620	19.8%	1,084	190	17.6%	3,539	370	10.5%	2,177	140	6.4%	1,333	141	10.6%
1992 CPS	11,132	1,381	12.4%	3,041	584	19.2%	990	148	15.0%	3,569	352	9.9%	2,196	171	7.8%	1,336	126	9.4%
1991 CPS	11,061	1,488	13.4%	3,021	579	19.2%	1,080	159	14.7%	3,501	369	10.5%	2,156	232	10.7%	1,303	150	11.5%
1990 CPS	10,890	1,256	11.5%	2,874	495	17.2%	1,061	139	13.1%	3,459	302	8.7%	2,107	168	8.0%	1,389	152	11.0%
1989 Census [†]	10,560	1,298	12.3%	2,763	481	17.4%	1,023	196	19.1%	3,378	329	9.8%	2,074	157	7.6%	1,322	135	10.2%
1988 CPS	10,903	1,356	12.4%	3,024	553	18.3%	1,198	181	15.1%	3,379	354	10.5%	2,112	159	7.5%	1,190	108	9.1%
1987 CPS	10,709	1,470	13.7%	2,829	623	22.0%	1,134	170	15.0%	3,372	382	11.3%	2,151	168	7.8%	1,223	127	10.4%
1986 CPS	10,703	1,372	12.8%	2,924	576	19.7%	1,092	154	14.1%	3,358	353	10.5%	2,030	165	8.1%	1,299	125	9.6%
1985 CPS	10,629	1,359	12.8%	2,888	572	19.8%	1,213	180	14.8%	3,269	336	10.3%	2,064	172	8.3%	1,197	99	8.3%
1984 CPS	10,619	1,429	13.5%	2,859	600	21.0%	1,240	198	16.0%	3,253	332	10.2%	2,051	175	8.5%	1,215	125	10.3%
1983 CPS	10,675	1,447	13.6%	2,927	568	19.4%	1,235	215	17.4%	3,198	342	10.7%	2,133	180	8.5%	1,182	142	12.0%
1982 CPS	10,711	1,366	12.8%	2,940	562	19.1%	1,271	181	14.2%	3,208	330	10.3%	2,201	187	8.5%	1,091	106	9.7%
1981 CPS	10,751	1,369	12.7%	3,028	551	18.2%	1,392	207	14.9%	3,149	321	10.2%	2,099	155	7.4%	1,083	135	12.5%
1980 CPS	10,630	1,046	9.8%	3,007	405	13.5%	1,407	152	10.8%	2,844	204	7.2%	2,276	164	7.2%	1,095	122	11.1%
1979 Census [#]	10,552	1,086	10.3%	3,081	416	13.5%	1,298	173	13.4%	2,897	213	7.4%	2,178	146	6.7%	1,099	137	12.5%
1978 CPS	10,460	893	8.5%	2,946	367	12.5%	1,428	107	7.5%	2,746	172	6.2%	2,232	142	6.4%	1,107	105	9.5%
1977 CPS	10,330	1,006	9.7%	3,005	421	14.0%	1,430	166	11.6%	2,594	169	6.5%	2,220	136	6.1%	1,081	114	10.5%
1976 CPS	10,721	1,014	9.5%	3,273	434	13.3%	1,369	148	10.8%	2,741	181	6.6%	2,240	133	5.9%	1,098	118	10.8%

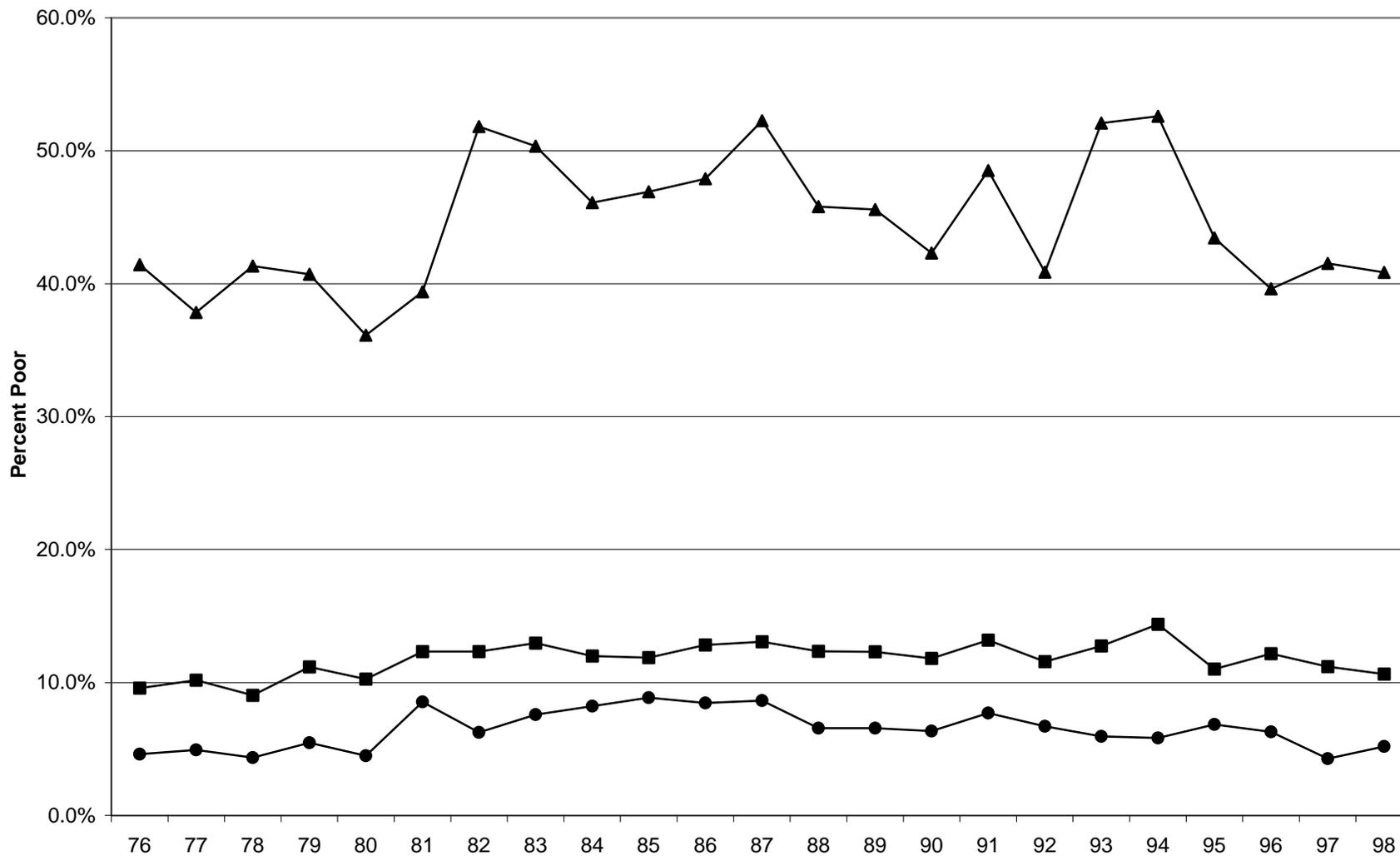
Notes: * - CPS numbers and percentages in these columns are less reliable; + - marks the first use of weights from the 1990 Census; # - marks the first use of weights from the 1980 census.

Sources: Current Population Surveys, March, 1977-79, 1981-89, & 1991-99 [machine-readable data files] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor], 1977-99.
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Historical Estimates of Poverty in Ohio: 1976-98

Households and Selected Families with Children



Source: U.S. Census Bureau. Note: FHwK, NHP - Female Head with Kid(s), No Husband Present.

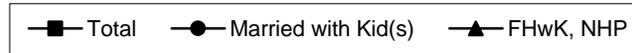


TABLE 2: HISTORICAL ESTIMATES OF THE NUMBER AND PERCENTAGE OF POOR HOUSEHOLDS IN OHIO BY TYPE
(numbers in thousands, except percentages)

Year and Source	Family Households																	
	Total Households			All Families			Married, with kid(s)*			Female head, with kid(s), no husband*			Remaining families*			Nonfamily Households*		
	In Poverty			In Poverty			In Poverty			In Poverty			In Poverty			In Poverty		
	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%
1998 CPS	4,473	476	10.6%	3,012	282	9.4%	1,104	57	5.2%	344	141	40.8%	1,564	84	5.4%	1,461	193	13.2%
1997 CPS	4,431	496	11.2%	2,981	260	8.7%	1,170	50	4.3%	353	146	41.5%	1,458	64	4.4%	1,449	235	16.2%
1996 CPS	4,376	532	12.2%	2,944	306	10.4%	1,111	70	6.3%	372	147	39.6%	1,461	89	6.1%	1,432	226	15.8%
1995 CPS	4,304	474	11.0%	3,024	287	9.5%	1,118	76	6.8%	345	150	43.4%	1,562	61	3.9%	1,280	188	14.6%
1994 CPS	4,315	621	14.4%	3,026	369	12.2%	1,168	68	5.8%	384	202	52.6%	1,473	99	6.7%	1,290	252	19.5%
1993 CPS	4,277	546	12.8%	3,012	350	11.6%	1,171	70	5.9%	379	197	52.1%	1,461	83	5.7%	1,266	195	15.4%
1992 CPS	4,231	490	11.6%	2,995	296	9.9%	1,145	77	6.7%	346	142	40.9%	1,504	78	5.2%	1,236	194	15.7%
1991 CPS	4,175	551	13.2%	2,958	336	11.4%	1,203	93	7.7%	315	153	48.5%	1,440	91	6.3%	1,217	215	17.7%
1990 CPS	4,146	490	11.8%	2,904	259	8.9%	1,149	73	6.3%	271	115	42.3%	1,484	71	4.8%	1,241	231	18.6%
1989 Census ⁺	4,081	502	12.3%	2,909	278	9.5%	1,125	74	6.6%	304	138	45.6%	1,481	65	4.4%	1,172	224	19.1%
1988 CPS	4,064	502	12.4%	2,961	304	10.3%	1,158	76	6.6%	332	152	45.8%	1,471	76	5.2%	1,103	198	18.0%
1987 CPS	4,055	530	13.1%	2,862	307	10.7%	1,134	98	8.6%	291	152	52.3%	1,437	57	4.0%	1,193	223	18.7%
1986 CPS	3,934	505	12.8%	2,877	294	10.2%	1,233	104	8.5%	268	128	47.9%	1,376	62	4.5%	1,057	210	19.9%
1985 CPS	3,861	458	11.9%	2,908	297	10.2%	1,235	109	8.9%	254	119	46.9%	1,419	68	4.8%	953	162	17.0%
1984 CPS	3,910	469	12.0%	2,871	301	10.5%	1,148	94	8.2%	298	137	46.1%	1,425	70	4.9%	1,040	168	16.1%
1983 CPS	3,918	508	13.0%	2,927	336	11.5%	1,170	89	7.6%	326	164	50.4%	1,431	83	5.8%	991	172	17.4%
1982 CPS	3,951	487	12.3%	2,958	311	10.5%	1,217	76	6.2%	312	162	51.8%	1,429	74	5.2%	992	176	17.7%
1981 CPS	3,887	479	12.3%	2,923	294	10.1%	1,226	105	8.5%	331	130	39.4%	1,367	60	4.4%	964	185	19.2%
1980 CPS	3,876	397	10.2%	2,907	218	7.5%	1,228	55	4.5%	317	114	36.1%	1,363	48	3.5%	969	180	18.5%
1979 Census [#]	3,835	428	11.2%	2,864	229	8.0%	1,262	69	5.5%	250	102	40.7%	1,352	58	4.3%	971	200	20.6%
1978 CPS	3,711	336	9.0%	2,873	184	6.4%	1,244	54	4.3%	210	87	41.3%	1,418	43	3.0%	839	152	18.1%
1977 CPS	3,635	370	10.2%	2,788	205	7.3%	1,213	60	4.9%	273	103	37.8%	1,303	42	3.2%	847	165	19.5%
1976 CPS	3,678	352	9.6%	2,833	207	7.3%	1,293	60	4.6%	257	107	41.4%	1,283	41	3.2%	845	145	17.2%

Notes: * - CPS numbers and percentages in these columns are less reliable; + - marks the first use of weights from the 1990 Census; # - marks the first use of weights from the 1980 census.

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TABLE 3. SIGNIFICANCE TESTS FOR CHANGES IN THE NUMBERS AND PERCENTAGES OF POOR PERSONS AND HOUSEHOLDS: OHIO, 1979 AND 1989

Poor	Numbers			Standard Errors			T Values	Significance
	1979 PUMSA	1989 PUMSA	Differences	1979 PUMSA	1989 PUMSA	Differences		
Persons: Total	1,086,200	1,297,962	211,762	8,610	7,441	11,380	18.608	*
Ages 0--17 Years	415,780	481,430	65,650	5,230	4,397	6,833	9.608	*
Ages 18--24 Years	173,340	195,586	22,246	3,380	2,774	4,373	5.088	*
Ages 25--44 Years	213,240	329,480	116,240	3,870	3,803	5,426	21.423	*
Ages 45--64 Years	146,480	156,653	10,173	3,220	2,654	4,173	2.438	*
Ages 65 Years & Over	137,360	134,813	(2,547)	3,020	2,427	3,874	-0.657	
Households: Total	428,420	502,021	73,601	2,960	3,471	4,562	16.135	*
Families: Total	228,780	277,706	48,926	2,200	2,622	3,422	14.296	*
Married, with Kid(s)	68,900	73,846	4,946	1,220	1,374	1,837	2.692	*
Female Head with Kid(s), but No Husband Present	101,760	138,451	36,691	1,180	1,436	1,859	19.742	*
Remaining Families	58,120	65,409	7,289	1,130	1,308	1,728	4.217	*
Nonfamily Households	199,640	224,315	24,675	1,910	2,228	2,934	8.409	*

Note: * - Chances that differences are due to random variation range between 1 in about 50 to 1 in over 50,000. See the Technical Notes for details.

Poor	Percentages			Standard Errors			T Values	Significance
	1979 PUMSA	1989 PUMSA	Differences	1979 PUMSA	1989 PUMSA	Differences		
Persons: Total	10.3	12.3	2.0	0.08	0.07	0.11	18.532	*
Ages 0--17 Years	13.5	17.4	3.9	0.17	0.16	0.23	16.868	*
Ages 18--24 Years	13.4	19.1	5.8	0.26	0.27	0.38	15.333	*
Ages 25--44 Years	7.4	9.8	2.4	0.13	0.11	0.17	13.683	*
Ages 45--64 Years	6.7	7.6	0.8	0.15	0.13	0.20	4.231	*
Ages 65 Years & Over	12.5	10.2	-2.3	0.27	0.18	0.33	-6.954	*
Households: Total	11.2	12.3	1.1	0.08	0.09	0.11	9.820	*
Families: Total	8.0	9.5	1.6	0.08	0.09	0.12	13.155	*
Married, with Kid(s)	5.5	6.6	1.1	0.10	0.12	0.16	7.096	*
Female Head with Kid(s), but No Husband Present	40.7	45.6	4.9	0.47	0.47	0.67	7.267	*
Remaining Families	4.3	4.4	0.1	0.08	0.09	0.12	0.975	
Nonfamily Households	20.6	19.1	-1.4	0.20	0.19	0.27	-5.242	*

Note: * - Chances that differences are due to random variation are less than 1 in 10,000. See the Technical Notes for details.

Sources: Censuses of Population and Housing, 1980 & 1990: PUMSA (Ohio) [machine-readable data files] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1983 & 1993.
Censuses of Population and Housing, 1980 & 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1983 & 1992.

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TABLE 4. ESTIMATED NUMBER AND PERCENT OF PERSONS BELOW VARIOUS LEVELS OF POVERTY, OHIO: 1989-98
(with 95% confidence limits)

Year and Source	U.S.: Percent Below 100% of Poverty Level	Ohio						Persons for Whom Poverty Status Is Determined	Sample Size
		Below 100% Level		Below 133% Level		Below 185% Level			
		Number	Percent	Number	Percent	Number	Percent		
1998 CPS Estimate	12.7	1,253,000	11.2	1,728,000	15.4	2,673,000	23.9	11,201,000	4,616
Lower Limit		1,026,000	9.3	1,461,000	13.2	2,342,000	21.3		
Upper Limit		1,480,000	13.1	1,995,000	17.6	3,004,000	26.5		
1997 CPS Estimate	13.3	1,231,000	11.0	1,725,000	15.4	2,853,000	25.4	11,212,000	4,700
Lower Limit		1,006,000	9.1	1,458,000	13.2	2,511,000	22.8		
Upper Limit		1,456,000	12.9	1,992,000	17.6	3,195,000	28.1		
1996 CPS Estimate	13.7	1,424,000	12.7	1,998,000	17.8	3,143,000	27.9	11,254,000	4,610
Lower Limit		1,184,000	10.7	1,714,000	15.5	2,788,000	25.2		
Upper Limit		1,664,000	14.7	2,282,000	20.1	3,498,000	30.6		
1995 CPS Estimate	13.8	1,285,000	11.5	1,932,000	17.2	2,805,000	25.0	11,211,000	4,664
Lower Limit		1,055,000	9.5	1,650,000	14.9	2,466,000	22.4		
Upper Limit		1,515,000	13.4	2,214,000	19.5	3,144,000	27.7		
1994 CPS Estimate	14.5	1,571,000	14.1	2,245,000	20.2	3,179,000	28.5	11,139,000	6,192
Lower Limit		1,353,000	12.3	1,985,000	18.1	2,870,000	26.2		
Upper Limit		1,789,000	15.9	2,505,000	22.3	3,488,000	30.9		
1993 CPS Estimate	15.1	1,461,000	13.0	2,090,000	18.6	3,259,000	28.9	11,264,000	6,525
Lower Limit		1,251,000	11.2	1,840,000	16.5	2,947,000	26.6		
Upper Limit		1,671,000	14.7	2,340,000	20.6	3,571,000	31.3		
1992 CPS Estimate	14.8	1,381,000	12.4	2,012,000	18.1	3,179,000	28.6	11,132,000	6,727
Lower Limit		1,177,000	10.7	1,766,000	16.1	2,871,000	26.2		
Upper Limit		1,585,000	14.1	2,258,000	20.1	3,487,000	30.9		
1991 CPS Estimate	14.2	1,488,000	13.5	1,983,000	17.9	3,105,000	28.1	11,061,000	6,654
Lower Limit		1,277,000	11.7	1,739,000	15.9	2,801,000	25.7		
Upper Limit		1,699,000	15.2	2,227,000	19.9	3,409,000	30.4		
1990 CPS Estimate	13.5	1,256,000	11.5	1,804,000	16.6	2,842,000	26.1	10,890,000	6,683
Lower Limit		1,062,000	9.9	1,571,000	14.6	2,551,000	23.8		
Upper Limit		1,450,000	13.2	2,037,000	18.5	3,133,000	28.4		
1989 Census Estimate	13.1	1,297,962	12.3	1,828,704	17.3	2,784,024	26.4	10,560,297	528,000
Lower Limit		1,283,377	12.2	1,811,895	17.2	2,764,452	26.2		
Upper Limit		1,312,547	12.4	1,845,513	17.5	2,803,596	26.5		

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau, 1992.
Current Population Surveys, March, 1991-99 [machine-readable data files] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].
1990 Census of Population, Social and Economic Characteristics: United States (CP-2-1). Washington, D.C.: U.S. Government Printing Office, 1993. Table 24.
U.S. Bureau of the Census (1991-99).

Prepared by: Office of Strategic Research, Ohio Dept. of Development, P.O. Box 1001, Columbus, Oh. 43216-1001.
Phone 800/848-1300, or 614/466-2116 (DL, 12/99).

TABLE 5. SIGNIFICANCE TESTS FOR CHANGES IN THE NUMBERS AND PERCENTAGES OF PERSONS BELOW VARIOUS LEVELS OF POVERTY, OHIO: 1989-98

Poverty Category	Numbers			Standard Errors			T Values	Significance
	1989 PUMSA	1998 CPS	Differences	1989 PUMSA	1998 CPS	Differences		
< 100%	1,297,962	1,253,000	(44,962)	7,441	116,000	116,238	-0.387	
< 133%	1,828,704	1,728,000	(100,704)	8,576	136,000	136,270	-0.739	
< 185%	2,784,024	2,673,000	(111,024)	9,986	169,000	169,295	-0.656	

Poverty Category	Percentages			Standard Errors			T Values	Significance
	1989 PUMSA	1998 CPS	Differences	1989 PUMSA	1998 CPS	Differences		
< 100%	12.3	11.2	-1.1	0.07	0.98	0.98	-1.126	
< 133%	17.3	15.4	-1.9	0.08	1.12	1.12	-1.680	
< 185%	26.4	23.9	-2.5	0.09	1.32	1.33	-1.883	

Note: Chances that the differences are due to random variation are greater than 1 in 20 in every case. See the Technical Notes for details.

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
 Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1992.
 Current Population Survey, March, 1999 [machine-readable data file] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor]. U.S. Bureau of the Census (1999).

Prepared by: Office of Strategic Research, Ohio Dept. of Development, P.O. Box 1001, Columbus, Oh. 43216-1001. Phone 800/848-1300, or 614/466-2116 (DL, 12/99).

TABLE 6. ESTIMATED NUMBER AND PERCENT OF PERSONS BELOW 100% OF POVERTY, BY SEX AND AGE, OHIO:
1989 AND 1998 (with 95% confidence limits)

Population	Numbers				Percentages				CPS Sample Sizes: Numerator ----- Denominator
	1989 PUMSA	1998 CPS	Differ- ence	T Values	1989 PUMSA	1998 CPS	Differ- ence	T Values	
Total: Estimate	1,297,962	1,253,000	-44,962	-0.39	12.3	11.2	-1.1	-1.13	494
Lower Limit	1,283,377	1,026,000			12.2	9.3			-----
Upper Limit	1,312,547	1,480,000			12.4	13.1			4,616
Males: Estimate	543,057	512,000	-31,057	-0.42	10.7	9.5	-1.2	-0.90	195
Lower Limit	533,536	367,000			10.5	6.9			-----
Upper Limit	552,578	657,000			10.9	12.1			2,176
Females: Estimate	754,905	741,000	-13,905	-0.16	13.8	12.8	-1.0	-0.72	299
Lower Limit	743,878	567,000			13.6	9.9			-----
Upper Limit	765,932	915,000			14.0	15.6			2,440
Ages 0-17: Estimate	481,430	527,000	45,570	0.69	17.4	18.0	0.6	0.27	206
Lower Limit	472,811	398,000			17.1	14.0			-----
Upper Limit	490,049	656,000			17.7	22.0			1,216
Ages 18-24: Estimate [#]	195,586	137,000	-58,586	-2.42 *	19.1	13.5	-5.6	-2.58 *	49
Lower Limit	190,149	90,000			18.6	9.2			-----
Upper Limit	201,023	184,000			19.6	17.7			384
Ages 25-44: Estimate	329,480	279,000	-50,480	-1.48	9.8	8.3	-1.4	-1.48	109
Lower Limit	322,026	212,000			9.5	6.4			-----
Upper Limit	336,934	346,000			10.0	10.2			1,356
Ages 45-64: Estimate	156,653	186,000	29,347	1.04	7.6	7.3	-0.2	-0.22	75
Lower Limit	151,451	131,000			7.3	5.3			-----
Upper Limit	161,855	241,000			7.8	9.4			1,086
Ages 65+: Estimate	134,813	124,000	-10,813	-0.49	10.2	9.1	-1.1	-0.68	55
Lower Limit	130,057	81,000			9.8	6.0			-----
Upper Limit	139,569	167,000			10.6	12.2			574

Notes: # - CPS numbers and percentages are less reliable;

* - Chances that differences are due to random variation are less than 1 in 20. See the Technical Notes for details.

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1992.
Current Population Survey, March, 1999 [machine-readable data file] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].
U.S. Bureau of the Census (1999).

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TABLE 7. ESTIMATED NUMBER AND PERCENT OF PERSONS BELOW 133% OF POVERTY, BY SEX AND AGE, OHIO:
1989 AND 1998 (with 95% confidence limits)

Population	Numbers				Percentages				CPS Sample Sizes: Numerator ----- Denominator
	1989 PUMSA	1998 CPS	Differ- ence	T Values	1989 PUMSA	1998 CPS	Differ- ence	T Values	
Total: Estimate	1,828,704	1,728,000	-100,704	-0.74	17.3	15.4	-1.9	-1.68	694
Lower Limit	1,811,895	1,461,000			17.2	13.2			-----
Upper Limit	1,845,513	1,995,000			17.5	17.6			4,616
Males: Estimate	768,413	718,000	-50,413	-0.57	15.1	13.3	-1.8	-1.17	278
Lower Limit	757,372	546,000			14.9	10.3			-----
Upper Limit	779,454	890,000			15.3	16.3			2,176
Females: Estimate	1,060,291	1,010,000	-50,291	-0.48	19.4	17.4	-2.0	-1.21	416
Lower Limit	1,047,652	806,000			19.1	14.2			-----
Upper Limit	1,072,930	1,214,000			19.6	20.6			2,440
Ages 0-17: Estimate	636,159	663,000	26,841	0.36	23.0	22.6	-0.4	-0.18	270
Lower Limit	626,593	518,000			22.7	18.2			-----
Upper Limit	645,725	808,000			23.4	27.0			1,216
Ages 18-24: Estimate [#]	252,105	204,000	-48,105	-1.65	24.6	20.1	-4.6	-1.78	71
Lower Limit	246,147	147,000			24.1	15.1			-----
Upper Limit	258,063	261,000			25.2	25.1			384
Ages 25-44: Estimate	461,430	387,000	-74,430	-1.85	13.7	11.5	-2.1	-1.89	154
Lower Limit	452,802	309,000			13.4	9.4			-----
Upper Limit	470,058	465,000			13.9	13.7			1,356
Ages 45-64: Estimate	225,835	241,000	15,165	0.49	10.9	9.5	-1.4	-1.18	97
Lower Limit	219,703	180,000			10.6	7.2			-----
Upper Limit	231,967	302,000			11.2	11.8			1,086
Ages 65+: Estimate	253,175	232,000	-21,175	-0.68	19.2	17.1	-2.1	-1.01	102
Lower Limit	246,991	171,000			18.7	13.0			-----
Upper Limit	259,359	293,000			19.6	21.1			574

Notes: # - CPS numbers and percentages are less reliable;

Chances that differences are due to random variation are greater than 1 in 20. See the Technical Notes for details.

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1992.
Current Population Survey, March, 1999 [machine-readable data file] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].
U.S. Bureau of the Census (1999).

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TABLE 8. ESTIMATED NUMBER AND PERCENT OF PERSONS BELOW 185% OF POVERTY, BY SEX AND AGE, OHIO:
1989 AND 1998 (with 95% confidence limits)

Population	Numbers				Percentages				CPS Sample Sizes: Numerator ----- Denominator
	1989 PUMSA	1998 CPS	Differ- ence	T Values	1989 PUMSA	1998 CPS	Differ- ence	T Values	
Total: Estimate	2,784,024	2,673,000	-111,024	-0.66	26.4	23.9	-2.5	-1.88	1,079
Lower Limit	2,764,452	2,342,000			26.2	21.3			-----
Upper Limit	2,803,596	3,004,000			26.5	26.5			4,616
Males: Estimate	1,202,931	1,153,000	-49,931	-0.45	23.6	21.4	-2.3	-1.23	449
Lower Limit	1,189,831	935,000			23.4	17.8			-----
Upper Limit	1,216,031	1,371,000			23.9	25.0			2,176
Females: Estimate	1,581,093	1,520,000	-61,093	-0.48	28.9	26.2	-2.7	-1.43	630
Lower Limit	1,566,598	1,271,000			28.6	22.5			-----
Upper Limit	1,595,588	1,769,000			29.2	29.9			2,440
Ages 0-17: Estimate	927,634	956,000	28,366	0.32	33.6	32.6	-1.0	-0.38	386
Lower Limit	916,903	782,000			33.2	27.7			-----
Upper Limit	938,365	1,130,000			34.0	37.5			1,216
Ages 18-24: Estimate [#]	345,143	284,000	-61,143	-1.79	33.7	28.0	-5.8	-2.02 *	102
Lower Limit	338,605	217,000			33.1	22.4			-----
Upper Limit	351,681	351,000			34.4	33.5			384
Ages 25-44: Estimate	728,178	638,000	-90,178	-1.76	21.6	19.0	-2.5	-1.84	255
Lower Limit	717,847	538,000			21.3	16.3			-----
Upper Limit	738,509	738,000			21.9	21.7			1,356
Ages 45-64: Estimate	350,787	382,000	31,213	0.80	16.9	15.0	-1.9	-1.30	159
Lower Limit	343,407	306,000			16.6	12.2			-----
Upper Limit	358,167	458,000			17.3	17.8			1,086
Ages 65+: Estimate	432,282	412,000	-20,282	-0.49	32.7	30.3	-2.4	-0.95	177
Lower Limit	424,909	332,000			32.1	25.4			-----
Upper Limit	439,655	492,000			33.3	35.2			574

Notes: # - CPS numbers and percentages are less reliable;

* - Chances that differences are due to random variation are less than 1 in 20. See the Technical Notes for details.

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1992.
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TABLE 9. ESTIMATED NUMBER AND PERCENT OF HOUSEHOLDS BELOW VARIOUS LEVELS OF POVERTY, OHIO: 1989-98
(with 95% confidence limits)

Year and Source	U.S.: Percent Below 100% of Poverty Level	Ohio						Estimated Households	Sample Size
		Below 100% Level		Below 133% Level		Below 185% Level			
		Number	Percent	Number	Percent	Number	Percent		
1998 CPS Estimate	12.2	476,000	10.6	681,000	15.2	1,112,000	24.9	4,473,000	1,874
Lower Limit		407,000	9.2	598,000	13.5	1,005,000	22.8		
Upper Limit		545,000	12.1	764,000	16.9	1,219,000	26.9		
1997 CPS Estimate	12.6	496,000	11.2	729,000	16.5	1,176,000	26.5	4,431,000	1,871
Lower Limit		426,000	9.7	643,000	14.7	1,066,000	24.5		
Upper Limit		566,000	12.7	815,000	18.2	1,286,000	28.6		
1996 CPS Estimate	13.0	532,000	12.2	784,000	17.9	1,237,000	28.3	4,376,000	1,821
Lower Limit		460,000	10.6	696,000	16.1	1,125,000	26.2		
Upper Limit		604,000	13.7	872,000	19.7	1,349,000	30.4		
1995 CPS Estimate	13.0	474,000	11.0	730,000	17.0	1,144,000	26.6	4,304,000	1,832
Lower Limit		405,000	9.5	644,000	15.2	1,036,000	24.5		
Upper Limit		543,000	12.5	816,000	18.7	1,252,000	28.7		
1994 CPS Estimate	13.8	621,000	14.4	875,000	20.3	1,265,000	29.3	4,315,000	2,433
Lower Limit		553,000	13.0	794,000	18.6	1,167,000	27.5		
Upper Limit		689,000	15.8	956,000	21.9	1,363,000	31.2		
1993 CPS Estimate	14.2	546,000	12.8	813,000	19.0	1,257,000	29.4	4,277,000	2,541
Lower Limit		483,000	11.4	736,000	17.4	1,160,000	27.5		
Upper Limit		609,000	14.1	890,000	20.6	1,354,000	31.3		
1992 CPS Estimate	13.9	490,000	11.6	754,000	17.8	1,214,000	28.7	4,231,000	2,619
Lower Limit		430,000	10.3	680,000	16.2	1,119,000	26.8		
Upper Limit		550,000	12.9	828,000	19.4	1,309,000	30.6		
1991 CPS Estimate	13.5	551,000	13.2	777,000	18.6	1,214,000	29.1	4,175,000	2,567
Lower Limit		488,000	11.8	701,000	17.0	1,119,000	27.2		
Upper Limit		614,000	14.6	853,000	20.2	1,309,000	31.0		
1990 CPS Estimate	13.5	490,000	11.8	727,000	17.5	1,155,000	27.9	4,146,000	2,599
Lower Limit		430,000	10.5	654,000	16.0	1,062,000	26.0		
Upper Limit		550,000	13.2	800,000	19.1	1,248,000	29.7		
1989 Census Estimate	12.7	502,021	12.3	733,608	18.0	1,110,807	27.2	4,081,472	202,108
Lower Limit		494,205	12.1	724,431	17.7	1,100,265	27.0		
Upper Limit		509,837	12.5	742,785	18.2	1,121,349	27.5		

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau, 1992.
Current Population Surveys, March, 1991-99 [machine-readable data files] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].
1990 Census of Population, Social and Economic Characteristics: United States (CP-2-1). Washington, D.C.: U.S. Government Printing Office, 1993. Table 24.
U.S. Bureau of the Census (1991-99).

Prepared by: Office of Strategic Research, Ohio Dept. of Development, P.O. Box 1001, Columbus, Oh. 43216-1001.
Phone 800/848-1300, or 614/466-2116 (DL, 12/99).

TABLE 10. SIGNIFICANCE TESTS FOR CHANGES IN THE NUMBERS AND PERCENTAGES OF HOUSEHOLDS BELOW POVERTY, OHIO: 1989-98

Poverty Category	Numbers			Standard Errors			T Values	Significance
	1989 PUMSA	1998 CPS	Differences	1989 PUMSA	1998 CPS	Differences		
< 100%	502,021	476,000	(26,021)	3,988	35,000	35,226	-0.739	
< 133%	733,608	681,000	(52,608)	4,682	42,000	42,260	-1.245	
< 185%	1,110,807	1,112,000	1,193	5,379	54,000	54,267	0.022	

Poverty Category	Percentages			Standard Errors			T Values	Significance
	1989 PUMSA	1998 CPS	Differences	1989 PUMSA	1998 CPS	Differences		
< 100%	12.3	10.6	-1.7	0.10	0.73	0.74	-2.237	*
< 133%	18.0	15.2	-2.7	0.11	0.86	0.86	-3.183	*
< 185%	27.2	24.9	-2.4	0.13	1.03	1.04	-2.268	*

Note: * - Chances that the differences are due to random variation are less than 1 in 20. See the Technical Notes for details.

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
 Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1992.
 Current Population Survey, March, 1999 [machine-readable data file] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].
 U.S. Bureau of the Census (1999).

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TABLE 11. ESTIMATED NUMBER AND PERCENT OF FAMILIES BELOW VARIOUS LEVELS OF POVERTY, OHIO: 1989-98
(with 95% confidence limits)

Year and Source	U.S.: Percent Below 100% of Poverty Level	Ohio						Estimated Families	Sample Size
		Below 100% Level		Below 133% Level		Below 185% Level			
		Number	Percent	Number	Percent	Number	Percent		
1998 CPS Estimate	10.0	282,000	9.4	382,000	12.7	598,000	19.9	3,012,275	1,267
Lower Limit		229,000	7.7	320,000	10.8	521,000	17.6		
Upper Limit		335,000	11.0	444,000	14.6	675,000	22.1		
1997 CPS Estimate	10.3	260,000	8.7	361,000	12.1	622,000	20.9	2,981,000	1,265
Lower Limit		209,000	7.1	301,000	10.2	543,000	18.5		
Upper Limit		311,000	10.3	421,000	14.0	701,000	23.2		
1996 CPS Estimate	11.0	306,000	10.4	424,000	14.4	689,000	23.4	2,944,000	1,223
Lower Limit		252,000	8.7	360,000	12.4	607,000	21.0		
Upper Limit		360,000	12.1	488,000	16.4	771,000	25.8		
1995 CPS Estimate	10.8	287,000	9.5	446,000	14.7	655,000	21.7	3,024,000	1,272
Lower Limit		234,000	7.8	379,000	12.7	574,000	19.3		
Upper Limit		340,000	11.2	513,000	16.8	736,000	24.0		
1994 CPS Estimate	11.6	369,000	12.2	516,000	17.1	739,000	24.4	3,026,000	1,708
Lower Limit		317,000	10.6	454,000	15.2	665,000	22.3		
Upper Limit		421,000	13.8	578,000	18.9	813,000	26.5		
1993 CPS Estimate	12.3	350,000	11.6	476,000	15.8	754,000	25.0	3,012,000	1,779
Lower Limit		300,000	10.1	417,000	14.0	680,000	22.9		
Upper Limit		400,000	13.2	535,000	17.6	828,000	27.1		
1992 CPS Estimate	11.7	296,000	9.9	441,000	14.7	703,000	23.5	2,995,000	1,843
Lower Limit		250,000	8.4	384,000	13.0	631,000	21.4		
Upper Limit		342,000	11.3	498,000	16.5	775,000	25.5		
1991 CPS Estimate	11.5	336,000	11.4	451,000	15.2	710,000	24.0	2,958,000	1,813
Lower Limit		287,000	9.8	394,000	13.5	638,000	21.9		
Upper Limit		385,000	12.9	508,000	17.0	782,000	26.1		
1990 CPS Estimate	10.7	259,000	8.9	380,000	13.1	637,000	21.9	2,904,000	1,820
Lower Limit		216,000	7.5	328,000	11.4	569,000	19.9		
Upper Limit		302,000	10.3	432,000	14.8	705,000	24.0		
1989 Census Estimate	10.0	277,706	9.5	394,859	13.6	632,228	21.7	2,909,192	146,464
Lower Limit		272,568	9.4	388,870	13.4	625,016	21.5		
Upper Limit		282,844	9.7	400,848	13.8	639,440	22.0		

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau, 1992.
Current Population Surveys, March, 1991-99 [machine-readable data files] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].
1990 Census of Population, Social and Economic Characteristics: United States (CP-2-1). Washington, D.C.: U.S. Government Printing Office, 1993. Table 24.
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TABLE 12. SIGNIFICANCE TESTS FOR CHANGES IN THE NUMBERS AND PERCENTAGES OF FAMILIES
BELOW POVERTY, OHIO: 1989-98

Poverty Category	Numbers			Standard Errors			T Values	Signif- icance
	1989 PUMSA	1998 CPS	Differ- ences	1989 PUMSA	1998 CPS	Differ- ences		
< 100%	277,706	260,000	(17,706)	2,622	26,000	26,132	-0.678	
< 133%	394,859	361,000	(33,859)	3,056	31,000	31,150	-1.087	
< 185%	632,228	622,000	(10,228)	3,679	40,000	40,169	-0.255	

Poverty Category	Percentages			Standard Errors			T Values	Signif- icance
	1989 PUMSA	1998 CPS	Differ- ences	1989 PUMSA	1998 CPS	Differ- ences		
< 100%	6.8	5.8	-1.0	0.07	0.82	0.83	-1.199	
< 133%	9.7	8.1	-1.6	0.09	0.95	0.96	-1.677	
< 185%	15.5	13.9	-1.6	0.11	1.19	1.19	-1.330	

Note: Chances that the differences are due to random variation are greater than 1 in 20. See the Technical Notes for details.

Sources: Census of Population and Housing, 1990: PUMSA (Ohio) [machine-readable data file] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1993.
Census of Population and Housing, 1990: PUMS Technical Documentation / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1992.
Current Population Survey, March, 1999 [machine-readable data file] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].
U.S. Bureau of the Census (1999).

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TECHNICAL NOTES:

This section considers the poverty estimates' reliability. This is important because this report uses the CPS data files in ways that are not their major purpose. The CPS is designed to be a nationally representative sample for labor force studies. Only recently has the national sample been designed to accommodate state level estimates of non-labor force characteristics such as this report. Despite these limitations, the estimates for Ohio are generally accurate within their confidence limits (CLs).

Standard errors (SEs) for statistical tests and CLs were calculated according to formulas suggested by the Census Bureau. For estimates from the 1980 and 1990 censuses PUMSAs, the formulas used for SEs are:

$SE_y = f \cdot (19 \cdot y \cdot (1 - y/n))^{.5}$, for estimated totals, and
 $SE_p = f \cdot (19/n \cdot p \cdot (100 - p))^{.5}$, for estimated percentages, where
f = an adjustment factor which varies by census and whether population or household characteristics are estimated.
n = the estimated number for whom poverty status is determined,
y = the estimated number below the specified poverty level, and
p = the estimated percentage below the specified poverty level, such that $0 < p < 100$.

Formulas used for SEs from CPS are:

$SE_y = f \cdot (a \cdot y^2 + b \cdot y)^{.5}$, for estimated totals, and
 $SE_p = f \cdot (b/y \cdot p \cdot (100 - p))^{.5}$, for estimated percentages, where
f = the state adjustment factor for Ohio,
a & b = parameters for poverty estimates whose values vary according to two factors: the segment of population for which poverty is estimated, and the year for which the estimate is produced, and
y & p are the same as above.

SEs for numbers and percentages below 133 and 185 percent of the poverty level that are based on CPS data should be regarded as approximate because the a and b parameters were developed for the 100 percent poverty level. I used the a and b parameters developed for the 15-24 age group on the 18-24 group because there are none for the latter. Consequently, SEs for the 18-24 group are too small at any level of poverty, and the T values of statistical significance tests (see below) are exaggerated to an unknown degree. Caution is advisable when interpreting the results. The Census Bureau recommended a state adjustment factor for Ohio of .91 for 1990-94, and a factor of 1.01 for 1995-96, and 1.02 for 1997-98. Parameters a and b are listed in the methodological sections of the published reports.

The formulas for 95 percent CLs are:

$CL_y = y \pm 1.96 \cdot SE_y$, and

$CL_p = p \pm 1.96 * SE_p$, where y, p & SE are the same as above.

The CLs for percentages are generally more accurate than the CLs for estimated numbers. However, it is not advisable to apply the CLs for percentages to those for whom poverty status is determined to obtain CLs that are closer to the estimated number than would otherwise be true. Nor should the estimated percentage below the specified poverty level be applied to a non-CPS estimate of families, households or the non-institutional population in an attempt to obtain a more accurate estimate of the number below the specified poverty level. In other words, users of this report are limited to the numbers, percentages, and SEs developed from the samples.

The correct way to interpret the 95 percent CL is to say that if the same procedures were repeated, 95 percent of all possible sample CLs would contain the population mean; users of this report can be 95 percent confident that they have one of those intervals. CLs may not be used as a test of significant differences in the estimated numbers or percentages of persons below specified poverty levels when comparing one year with another. Even if the sample figure for one year is not within the CL for another year, it is still possible that the CLs for both years could overlap. If the CLs overlap, it is possible that the true value figure for the population could be in that range where the CLs overlap; in other words, the true value figure may not have changed. It is best to use a test for difference between sample means.

The formula for the test of a difference between two sample means is:

$T = (X_i - X_j) / (SE_i^2 + SE_j^2)^{.5}$, where
 X_i & X_j = the numbers or percentages from samples i and j, and
 SE_i & SE_j = the SEs of the numbers or percentages from samples i and j.

The greater the |T|, the less likely the difference between the means is due to chance variations. If $T > 1.96$ or $T < -1.96$, then there is less than one chance in 20 that the difference between the means is due to random variability. Less-than-one-chance-in-20 is the conventional criterion for concluding that the difference between the sample means indicates a statistically significant or "real" difference between the populations.

SOURCES:

Censuses of Population and Housing, 1980 & 1990: PUMSA (Ohio) [machine-readable data files] / prepared by the Census Bureau. Washington, D.C.: the Bureau [producer and distributor], 1983 & 1993.

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Current Population Surveys, March, 1977-79, 1981-89, & 1991-99 [machine-readable data files] / conducted by the Census Bureau for the Bureau of Labor Statistics. Washington, D.C.: the Census Bureau [producer and distributor].

U.S. Bureau of the Census, 1991-99
Current Population Reports, Series P60-175, 181, 185, 188, 189, 194, 198, 201 & 207. Washington, D.C.: U.S. Government Printing Office.

1990 Census of Population, Social and Economic Characteristics: United States (CP-2-____1). Washington, D.C.: U.S. Government Printing Office, 1993. Table 24.

The comments on, suggestions about, and corrections to the sources made by Joe Dalaker, Maurice Kniceley and Janet Yax of the Census Bureau, plus the assistance of Mark Johnson (State of Ohio) and Ed Welniak (Census Bureau) in developing computer algorithms, are hereby acknowledged.