
Working Poverty in Michigan: Magnitudes and Demographic and Labor Characteristics, 1998 and 2007

Udaya R. Waglé
School of Public Affairs and Administration
Western Michigan University

(Acknowledging a grant from the Upjohn Institute for Employment Research, Kalamazoo, MI)

Economic and Labor Market Changes in Michigan

- Struggling state economy
 - Declining manufacturing jobs
 - Transition to service and sales jobs
 - Growth of education and health care industries
-

Key Indicators

Table 1. Some Economic Indicators, 1998 and 2007

Indicators	Michigan			United States		
	1998	2007	% Change	1998	2007	% Change
Per capita income (in 2007 dollars) ^a	33,713	35,086	4.07	34,196	38,611	12.91
Total Labor Force (in thousands)	5,046	4,989	-1.13	137,673	153,124	11.22
Total Employment (in thousands)	4,842	4,617	-4.65	127,359	138,078	8.42
Manufacturing	896	601	-32.92	17,447	13,772	-21.06
Trade, Transportation, and Utilities	860	784	-8.84	25,420	26,658	4.87
Professional and Business Services	609	569	-6.57	15,512	18,131	16.88
Education and Health Services ^b	487	600	23.20	14,627	18,568	26.94
Unemployment Rate ^c (%)	4.0	7.4	85.00	4.5	4.6	2.22

Note: a. Inflation adjusted income using Consumer Price Index for urban areas.

b. This category is included in Professional and Business Services.

c. Unemployment rates in June 2008 were 8.5% in Michigan and 5.5% in the US.

Source: Bureau of Labor Statistics (2008)

Effects on Poverty and Working Poverty

- Increasing unemployment and stagnant incomes increase poverty
 - Labor market restructuring is likely to increase working poverty
 - These effects partly depend on demographic characteristics and transfer policies
-

Data

- 1998 and 2007 Current Population Surveys
 - Focus on Michigan subsample:
 - $N_{1998} \sim 4,300$; $N_{2007} \sim 5,000$
 - Focus on all and working families:
 - $N_{\text{all}} \sim 1900$; $N_{\text{working}} \sim 1200$
 - Measure changes between economic expansion of the late 1990s and the ongoing economic slowdown
-

Questions

- How have the magnitudes of ‘general poverty’ and ‘working poverty’ changed between 1998 and 2007?
 - Working poverty may have increased more rapidly than general poverty.
 - What has been the role of taxes and transfers?
 - How have the demographic and labor characteristics of the poor changed between general poverty and working poverty and between 1998 and 2007?
 - What are the policy implications for reducing poverty in Michigan and beyond?
-

Key Concepts

- Income:
 - Gross family cash income
 - Family income after taxes and transfer (Food Stamps, School Lunch, Housing Subsidy, Medicare, Medicaid)
 - Equivalized family income
 - Poverty Lines:
 - Official poverty lines
 - 200% of the official poverty lines
 - Poverty lines based on 50% of the median income
-

Magnitudes of Poverty

Table 2. Poverty Headcount Ratios (Values as Percentages)

Description	Working Families		All Families		% Change	
	1998	2007	1998	2007	Working Families	All Families
% of the Families Poor						
Official poverty line and gross income	4.75	5.95	13.26	15.68	25.26	18.25
200% official poverty line and gross income	16.08	19.97	31.91	33.31	24.19	4.39
Official poverty line and income after taxes and transfers	5.54	5.11	13.01	13.72	-7.76	5.46
50% of the median equivalized gross income	10.62	12.19	25.42	26.36	14.78	3.70
50% of the median equivalized income after taxes and transfers	11.27	10.52	21.33	22.08	-6.65	3.52
% of the Population Poor						
Official poverty line and gross income	3.03	5.01	10.86	13.81	65.35	27.16
200% official poverty line and gross income	15.29	16.89	28.05	29.24	10.46	4.24
Official poverty line and income after taxes and transfers	3.23	3.11	9.66	10.70	-3.72	10.77
50% of the median equivalized gross income	9.58	11.17	21.87	22.78	16.60	4.16
50% of the median equivalized income after taxes and transfers	8.92	7.54	17.42	17.65	-15.47	1.32
% of the Children under 18						
Official poverty line and gross income	3.72	7.24	15.42	19.96	94.62	29.44
200% official poverty line and gross income	21.73	24.02	35.60	36.99	10.54	3.90
Official poverty line and income after taxes and transfers	3.48	2.94	12.20	12.97	-15.52	6.31
50% of the median equivalized gross income	13.71	15.91	28.36	29.22	16.05	3.03
50% of the median equivalized income after taxes and transfers	11.90	8.35	22.88	21.13	-29.83	-7.65

Poverty Gap

Table 3. Poverty Gap Among the Poor Families (Values as Percentages)

Description	1998	2007	% Change
<i>All Poor Families</i>			
Official poverty line and gross income	48.79	54.22	11.13
200% official poverty line and gross income	45.85	49.51	7.98
Official poverty line and income after taxes and transfers	49.28	55.93	13.49
50% of the median equivalized gross income	44.70	50.04	11.95
50% of the median equivalized income after taxes and transfers	45.37	50.08	10.38
<i>Working Poor Families</i>			
Official poverty line and gross income	54.84	51.35	-6.36
200% official poverty line and gross income	38.77	40.44	4.31
Official poverty line and income after taxes and transfers	62.45	65.57	5.00
50% of the median equivalized gross income	41.12	41.97	2.07
50% of the median equivalized income after taxes and transfers	43.63	44.35	1.65

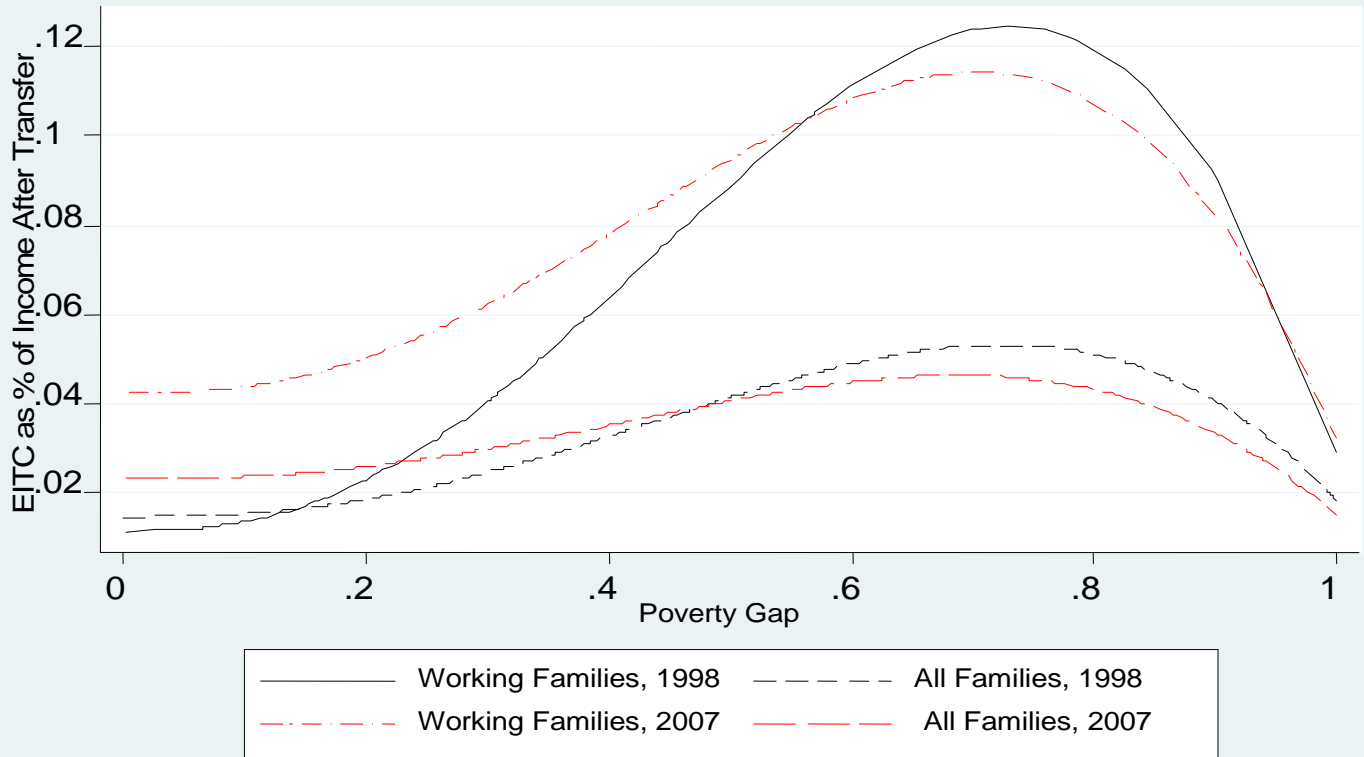
Role of Means-Tested Cash and In-Kind Transfers

Table 4. Size of Means-Tested Transfers to the Poor Relative to Their Income After Taxes and Transfers
(Values as Percentages)

Description	1998	2007	% Change
<i>All Poor Families</i>			
Official poverty line and gross income	25.92	25.55	-1.43
200% official poverty line and gross income	13.40	14.76	10.15
Official poverty line and income after taxes and transfers	21.63	22.59	4.44
50% of the median equivalized gross income	16.21	17.55	8.27
50% of the median equivalized income after taxes and transfers	16.49	17.37	5.34
<i>Working Poor Families</i>			
Official poverty line and gross income	24.12	23.19	-3.86
200% official poverty line and gross income	10.87	13.42	23.46
Official poverty line and income after taxes and transfers	16.92	15.37	-9.16
50% of the median equivalized gross income	14.20	16.81	18.38
50% of the median equivalized income after taxes and transfers	11.20	11.90	6.25

Role of EITC, 1998 and 2007

Figure 1
EITC and Poverty Gap, 1998 and 2007
(Using 200% Adjusted Official Poverty Lines)



Role of In-Kind Transfers, 1998 and 2007

Figure 2
In-Kind Supports and Poverty Gap, 1998 and 2007
(Using 200% Adjusted Official Poverty Lines)

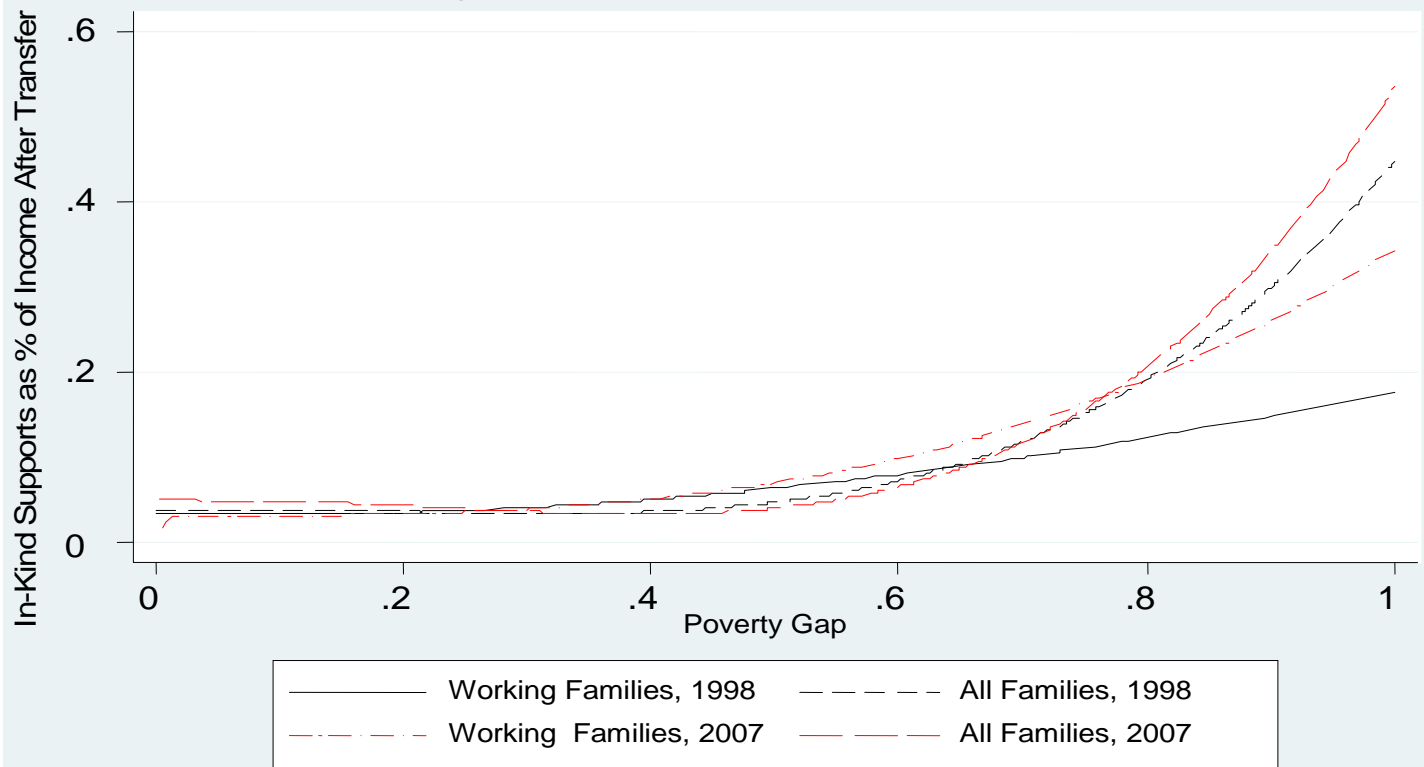


Table 6. Poverty Headcount Ratios for Working Families, 1998 and 2007 (Figures are percentages unless otherwise indicated)

Variables	1998					2007				
	Gross Income			Income After Transfer		Gross Income			Income After Transfer	
	Official	200 % Official	Relative	Official	Relative	Official	200 % Official	Relative	Official	Relative
Demographic Characteristics										
Age										
24 and younger	12.68	38.23	24.81	14.42	26.53	17.87	50.57	40.21	21.83	38.36
25 - 59	4.32	14.30	9.35	4.95	9.94	5.63	17.30	11.53	4.48	9.65
60 and older	0.00	12.35	10.39	1.95	10.39	2.14	8.05	4.20	2.14	4.77
Marital Status:										
Married	0.80	9.18	4.80	0.94	3.80	2.98	10.24	7.08	1.83	4.53
Never Married	11.36	29.08	19.88	12.85	22.74	13.39	38.88	24.00	14.06	24.77
Divorced/Separated	9.67	20.32	15.98	11.33	18.97	7.07	21.92	14.79	5.78	13.53
Widowed	0.00	28.51	23.39	3.42	26.81	0.00	0.00	0.00	0.00	0.00
Gender										
Female	6.43	22.68	15.86	7.29	16.33	8.55	23.39	17.46	6.96	13.66
Male	4.01	13.16	8.30	4.77	9.03	4.29	14.75	9.04	3.89	8.58
Race										
White	4.25	14.27	9.55	5.10	10.35	5.30	16.27	10.97	4.83	9.34
Black	10.12	31.42	20.91	9.87	19.72	8.92	28.51	19.58	5.90	16.87
American Indian	0.00	19.84	10.43	0.00	10.43	5.73	34.30	14.45	0.00	22.92
Asian	2.89	16.11	6.78	5.65	9.54	8.57	11.04	11.04	8.57	8.57
Hispanic	3.20	24.00	17.41	4.39	13.44	4.75	27.09	17.89	1.48	9.71
Family Type										
Individuals	10.42	22.17	14.99	13.66	20.47	11.62	28.02	18.75	13.68	22.27
Families	2.47	13.78	8.97	2.48	7.79	3.70	14.14	9.59	1.80	6.06
Single Mother	18.74	57.58	45.28	16.95	41.42	17.64	50.47	36.64	8.31	21.35
Number of Children Under Six										
One	8.37	26.50	19.47	9.59	17.36	10.87	27.61	19.11	4.99	11.56
Two or more	1.44	21.21	12.17	1.44	9.18	5.37	23.27	15.90	1.95	7.33
Nativity										
US Native	4.82	15.79	10.60	5.58	11.29	5.69	17.62	11.92	5.04	10.46
Foreign-Born, US Citizen	5.41	24.72	14.12	5.41	11.40	7.66	24.80	14.64	2.17	8.90
Foreign-Born, Non US Citizen	2.36	16.87	8.13	4.65	10.40	8.35	18.31	14.35	6.67	10.49
Metropolitan Area										
Metro	4.31	15.14	9.68	5.22	10.40	5.58	16.90	11.24	4.96	9.98
Non-Metro	8.09	23.06	17.61	7.93	17.74	7.31	23.57	16.98	5.22	12.96
Labor Characteristics										
Educational Attainment										
Less Than High School	11.40	34.70	27.10	10.96	23.28	19.77	44.38	35.38	9.99	34.50
High School	5.78	23.09	15.09	6.51	15.33	6.81	26.56	17.79	5.49	14.49
Some College	4.55	11.94	7.84	5.38	8.99	5.48	15.77	9.80	5.58	9.29
College	2.04	6.76	3.03	2.90	5.08	2.98	8.66	5.91	3.29	4.33
Graduate	0.96	2.72	2.72	1.90	3.69	4.07	5.91	4.73	3.54	4.07
Employment Industry										
Construction	8.25	23.49	14.76	9.51	14.84	8.26	24.61	16.88	5.64	12.42
Manufacturing	3.48	10.52	7.15	3.95	7.99	1.92	12.78	6.69	2.17	6.36
Wholesale and Retail Sale	5.12	23.21	14.93	5.04	13.51	5.52	21.59	12.52	3.70	10.80
Financial Activities	4.59	13.22	8.20	6.04	9.65	3.31	10.22	6.12	3.31	6.34
Professional and Business Services	6.95	19.52	14.35	9.15	16.37	8.73	22.61	18.37	5.60	12.53
Educational and Health Services	3.67	13.75	8.71	3.56	9.28	7.66	16.45	13.32	7.26	10.28
Others	4.21	16.38	9.97	5.89	11.59	7.38	20.25	14.11	6.81	14.05
Occupation										
Managerial, Business, and Professional	2.66	6.51	4.22	3.66	6.50	3.98	8.45	5.49	3.63	5.02
Services	10.71	27.59	20.14	10.31	19.98	11.54	37.96	30.36	8.85	23.62
Sales and Related	2.85	17.40	10.34	4.22	11.01	4.94	17.57	12.50	4.17	10.43
Others	3.13	16.32	9.89	4.36	9.59	5.90	20.06	12.06	5.22	11.06
Self-Employed	7.17	22.61	13.70	9.09	16.37	3.63	16.88	13.03	3.45	8.37
Combined Hours of Work for Families (average)										
Poor Families	2,548	2,612	2,581	2,569	2,579	2,539	2,544	2,583	2,542	2,528
Non-Poor Families	3,347	3,443	3,396	3,352	3,401	3,219	3,318	3,262	3,213	3,255

Table 5. Poverty Headcount Ratios for All Families, 1998 and 2007 (Figures are percentages unless otherwise indicated)

Variables	1998					2007				
	Gross Income			Income After Transfer		200 %			Income After Transfer	
	Official	200 %	Relative	Official	Relative	Official	Official	Relative	Official	Relative
Demographic Characteristics										
Age										
24 and younger	28.83	57.23	46.11	30.17	44.67	43.89	68.04	58.91	46.63	58.49
25 - 59	11.91	25.35	19.83	11.57	18.85	14.54	28.68	22.06	11.85	18.97
60 and older	10.96	40.29	33.08	10.37	19.36	10.47	35.61	28.29	9.25	19.82
Marital Status:										
Married	3.12	15.69	10.51	2.88	7.00	5.42	15.92	11.91	4.00	8.28
Never Married	26.72	48.96	40.28	26.51	38.55	32.07	54.16	43.87	29.93	42.15
Divorced/Separated	19.46	37.34	33.56	19.34	32.09	19.57	39.16	31.26	16.59	26.67
Widowed	16.24	53.58	42.09	14.75	26.91	14.23	55.53	43.32	11.90	27.74
Gender										
Female	20.84	45.29	37.71	19.62	31.08	21.29	43.84	35.67	17.81	28.30
Male	8.00	22.30	16.70	8.41	14.59	10.65	24.31	18.31	9.87	16.45
Race										
White	9.77	28.08	21.61	10.15	17.56	12.03	29.23	22.36	10.94	18.36
Black	33.32	53.83	47.93	29.76	43.40	33.37	53.74	26.58	46.31	39.81
American Indian	39.70	54.24	49.47	30.85	49.47	16.53	43.71	25.98	8.76	28.61
Asian	10.72	22.48	14.18	10.63	16.63	18.74	26.69	25.02	18.74	20.73
Hispanic	15.90	36.22	13.95	31.69	27.57	20.76	43.49	32.69	12.86	25.17
Family Type										
Individuals	20.69	44.17	36.05	22.59	32.99	22.48	46.87	37.06	22.72	34.10
Families	9.03	24.61	19.17	7.57	17.73	11.22	24.85	19.55	7.95	14.48
Single Mother	45.46	77.38	67.98	36.78	58.98	45.07	70.83	61.07	28.62	45.89
Number of Children Under Six										
One	23.08	40.95	34.41	21.32	30.72	26.98	42.50	34.45	18.05	28.28
Two or more	14.98	33.93	28.01	11.09	21.91	18.11	34.96	28.71	11.79	18.88
Nativity										
US Native	13.26	31.65	25.27	13.00	21.45	15.00	32.45	25.49	13.18	21.21
Foreign-Born, US Citizen	12.71	34.95	27.56	12.72	18.65	17.12	42.45	32.94	11.66	25.57
Foreign-Born, Non US Citizen	12.01	28.15	21.65	11.94	17.98	26.19	39.31	35.62	22.71	34.18
Metropolitan Area										
Metro	13.18	30.57	24.27	12.98	20.65	15.11	31.81	24.79	13.13	20.86
Non-Metro	13.50	39.45	32.33	12.82	25.95	16.62	38.82	32.23	14.67	26.01
Labor Characteristics										
Educational Attainment										
Less Than High School	28.75	58.20	53.39	26.11	41.49	32.21	66.03	56.28	25.28	46.81
High School	12.88	35.95	26.99	11.86	22.48	16.55	38.50	30.63	13.74	24.06
Some College	12.57	28.46	22.38	13.52	19.35	14.96	30.10	22.62	13.88	20.36
College	4.41	12.63	8.22	5.42	9.21	6.54	16.55	11.38	7.36	10.10
Graduate	3.98	7.88	5.37	5.30	6.70	9.51	12.08	10.79	8.19	9.51
Employment Industry										
Construction	9.78	30.68	22.08	10.65	19.70	14.54	32.05	11.69	23.59	19.92
Manufacturing	5.04	14.97	10.70	5.69	10.97	3.55	16.17	9.05	4.00	8.76
Wholesale and Retail Sale	13.67	33.34	26.11	12.39	23.10	9.98	28.31	8.27	8.27	17.65
Financial Activities	4.01	14.42	7.18	5.28	9.85	9.44	18.40	13.71	7.86	13.19
Professional and Business Services	12.07	27.35	22.58	12.59	21.31	11.81	27.64	21.64	8.72	16.92
Educational and Health Services	10.65	23.49	18.18	10.32	17.78	12.88	24.62	19.87	12.28	16.89
Others	21.98	49.73	41.61	20.91	30.79	22.93	45.21	37.86	19.78	30.66
Occupation										
Managerial, Business, and Professional	3.99	8.31	6.04	5.10	8.03	6.42	11.89	8.44	6.25	8.29
Services	16.14	37.50	29.70	14.89	26.48	22.69	49.92	41.00	19.40	33.67
Sales and Related	12.60	25.89	20.36	11.89	19.69	13.23	29.71	24.69	12.58	21.99
Others	16.35	40.96	33.06	15.96	25.54	18.19	39.41	30.95	15.46	25.16
Unemployed	36.40	62.43	47.68	33.11	47.68	41.34	61.27	49.49	37.58	44.87
Self-Employed	8.34	23.77	16.42	9.93	16.63	7.18	24.97	18.29	7.42	12.67
Combined Hours of Work for Families (average)										
Poor Families	880	1,121	985	983	1,177	811	1,067	957	801	985
Non-Poor Families	2,457	2,771	2,675	2,437	2,539	2,315	2,584	2,480	2,283	2,389

Table 8. Logit Estimates of Poverty Status for Working Families, 1998 and 2007 (Robust Standard Errors in Parentheses)

Variables	1998					2007				
	Gross Income			Income After Transfer		Gross Income			Income After Transfer	
	Official	200% Official	Relative	Official	Relative	Official	200% Official	Relative	Official	Relative
Demographic Characteristics										
Age	-0.006 (0.016)	-0.034 ** (0.011)	-0.010 (0.013)	-0.005 (0.015)	-0.017 (0.012)	-0.026 (0.013)	-0.035 ** (0.009)	-0.035 ** (0.011)	-0.019 (0.014)	-0.030 ** (0.011)
Marital Status: Never Married	1.720 * (0.842)	0.919 ** (0.358)	1.319 ** (0.427)	1.525 (0.848)	1.721 ** (0.420)	0.365 (0.445)	0.491 (0.314)	0.168 (0.374)	0.610 (0.659)	0.398 (0.419)
Marital Status: Divorced/Separated	1.566 (0.826)	0.630 (0.355)	1.001 * (0.433)	1.436 (0.795)	1.554 ** (0.418)	-0.102 (0.512)	-0.008 (0.322)	-0.276 (0.392)	-0.189 (0.693)	0.009 (0.433)
Marital Status: Widowed		0.567 (0.718)	1.083 (0.834)	-0.075 (1.627)	1.912 ** (0.841)					
Female	-0.1984 (0.470)	0.234 (0.253)	0.060 (0.317)	-0.161 (0.419)	-0.054 (0.300)	0.224 (0.331)	0.222 (0.222)	0.411 (0.253)	0.072 (0.331)	0.103 (0.262)
Race: Black	0.437 (0.437)	0.513 (0.295)	0.272 (0.355)	0.282 (0.437)	0.161 (0.345)	-0.135 (0.514)	0.205 (0.299)	0.169 (0.361)	-0.435 (0.560)	0.188 (0.362)
Race: American Indian		0.055 (0.822)	-0.427 (0.899)		-0.455 (0.972)	-0.840 (0.848)	0.666 (0.533)	-0.803 (0.983)		0.502 (0.617)
Race: Asian	-0.271 (0.907)	0.728 (0.677)	-0.318 (0.824)	0.025 (0.750)	-0.600 (0.743)	0.456 (0.861)	-0.551 (0.824)	0.065 (0.819)	0.534 (1.099)	-0.376 (0.922)
Race: Hispanic	-1.437 (1.073)	-0.160 (0.514)	-0.080 (0.566)	-0.974 (0.995)	-0.443 (0.559)	-0.725 (0.851)	0.269 (0.431)	0.340 (0.466)	-1.967 (1.667)	-0.623 (0.690)
Family Size	-0.928 ** (0.342)	0.167 (0.121)	-0.038 (0.144)	-1.284 ** (0.472)	-0.191 (0.150)	-0.264 (0.171)	0.013 (0.098)	-0.128 (0.120)	-0.985 (0.566)	-0.487 ** (0.183)
Number of Children Under Six	0.945 * (0.417)	0.377 * (0.175)	0.714 ** (0.225)	1.419 * (0.556)	0.680 ** (0.237)	0.533 * (0.258)	0.371 * (0.156)	0.426 * (0.180)	0.899 (0.581)	0.498 * (0.238)
Single Mother	2.374 ** (0.630)	1.266 ** (0.392)	1.567 ** (0.445)	2.057 ** (0.594)	1.301 ** (0.416)	0.888 (0.521)	0.937 * (0.375)	0.942 * (0.416)	0.826 (0.754)	0.466 (0.460)
Nativity: Foreign-Born, Non-US Citizen	1.226 (0.856)	0.836 (0.437)	0.788 (0.486)	0.780 (0.799)	0.542 (0.597)	1.157 (0.732)	1.185 * (0.518)	0.910 (0.656)	-0.568 (1.623)	0.698 (0.852)
Nativity: Foreign-Born, US Citizen	0.268 (0.826)	-0.189 (0.587)	-0.181 (0.764)	0.553 (0.765)	0.487 (0.584)	0.636 (0.705)	0.390 (0.602)	0.366 (0.653)	1.005 (1.030)	0.789 (0.735)
Metropolitan Area	-1.209 * (0.552)	-0.833 * (0.331)	-1.057 ** (0.349)	-0.986 (0.508)	-1.087 ** (0.364)	-0.431 (0.366)	-0.534 * (0.229)	-0.654 * (0.260)	0.064 (0.412)	-0.336 (0.308)
Labor Characteristics										
Education: Less Than High School	0.918 * (0.461)	0.667 * (0.293)	0.919 ** (0.329)	0.543 (0.441)	0.630 (0.350)	1.479 ** (0.437)	1.022 * (0.414)	1.146 ** (0.444)	0.821 (0.557)	1.437 ** (0.438)
Education: Some College	-0.282 (0.450)	-0.905 ** (0.268)	-0.730 * (0.308)	-0.308 (0.404)	-0.708 * (0.296)	-0.159 (0.336)	-0.623 ** (0.217)	-0.638 * (0.259)	0.037 (0.365)	-0.423 (0.268)
Education: College	-0.903 (0.642)	-1.340 ** (0.461)	-1.713 ** (0.494)	-0.803 (0.545)	-1.320 ** (0.409)	-0.719 (0.418)	-0.957 ** (0.289)	-0.827 * (0.340)	-0.297 (0.493)	-0.925 * (0.392)
Education: Graduate	-1.262 (1.363)	-1.811 * (0.806)	-1.496 (0.965)	-0.483 (0.884)	-1.083 (0.702)	-0.380 (0.721)	-1.203 * (0.555)	-0.849 (0.634)	-0.136 (0.817)	-0.877 (0.708)
Industry: Construction	0.329 (0.730)	-0.177 (0.451)	-0.131 (0.546)	0.345 (0.632)	-0.376 (0.527)	0.228 (0.653)	0.447 (0.415)	0.514 (0.480)	-0.186 (0.804)	0.128 (0.561)
Industry: Manufacturing	0.265 (0.645)	-0.444 (0.381)	-0.232 (0.475)	-0.123 (0.542)	-0.337 (0.437)	-1.409 ** (0.544)	-0.207 (0.281)	-0.451 (0.347)	-1.053 (0.542)	-0.574 (0.365)
Industry: Wholesale and Retail Sale	0.461 (0.656)	0.426 (0.405)	0.437 (0.471)	-0.174 (0.587)	-0.183 (0.440)	-0.275 (0.624)	0.466 (0.356)	-0.027 (0.429)	-0.787 (0.725)	-0.196 (0.472)
Industry: Financial Activities	-0.062 (0.769)	-0.524 (0.537)	-0.496 (0.637)	-0.200 (0.673)	-0.584 (0.567)	-0.466 (0.900)	-0.282 (0.508)	-0.449 (0.655)	-0.520 (0.955)	-0.411 (0.622)
Industry: Professional and Business Services	0.480 (0.659)	0.122 (0.410)	0.292 (0.481)	0.462 (0.563)	0.093 (0.445)	0.401 (0.473)	0.375 (0.351)	0.611 (0.395)	-0.109 (0.523)	-0.006 (0.392)
Industry: Educational and Health Services	-0.593 (0.780)	-0.359 (0.460)	-0.590 (0.550)	-0.821 (0.678)	-0.750 (0.500)	0.277 (0.400)	0.134 (0.303)	0.298 (0.337)	0.313 (0.408)	-0.017 (0.345)
Occupation: Managerial, Business, and Professional	0.656 (0.570)	-0.204 (0.398)	0.146 (0.423)	0.302 (0.498)	0.478 (0.385)	-0.348 (0.366)	-0.567 * (0.245)	-0.661 * (0.311)	-0.497 (0.413)	-0.419 (0.325)
Occupation: Services	1.540 ** (0.454)	0.768 ** (0.248)	0.950 ** (0.287)	0.966 * (0.398)	1.028 ** (0.283)	-0.062 (0.445)	0.661 * (0.278)	0.690 * (0.320)	-0.061 (0.482)	0.519 (0.336)
Occupation: Sales and Related	-0.265 (0.714)	0.107 (0.402)	0.142 (0.453)	0.047 (0.657)	0.564 (0.442)	-0.229 (0.695)	-0.283 (0.407)	0.205 (0.461)	0.022 (0.704)	0.147 (0.494)
Self-Employed	1.078 * (0.468)	1.404 ** (0.327)	1.009 ** (0.404)	0.926 * (0.404)	1.123 ** (0.331)	-0.410 (0.601)	0.375 (0.351)	0.495 (0.398)	-0.016 (0.677)	0.038 (0.463)
Combined Hours of Work (Log)	-0.226 (0.655)	-2.089 ** (0.359)	-1.547 ** (0.428)	0.338 (0.661)	-1.036 * (0.413)	-1.469 * (0.617)	-2.155 ** (0.388)	-1.688 ** (0.469)	-0.350 (0.751)	-1.346 * (0.543)
Constant (Poverty Status: 1=Poor; 0=Non-Poor)	-0.698 (5.246)	15.829 ** (2.876)	10.204 ** (3.515)	-3.873 (5.269)	6.798 * (3.431)	10.807 * (5.195)	17.222 ** (3.163)	13.432 ** (3.814)	2.599 (5.880)	11.081 * (4.405)
N	1140	1172	1172	1161	1172	1255	1255	1255	1238	1255
Pseudo R ² (%)	32.08	29.02	28.81	29.28	26.47	17.35	24.8	22.52	19.09	21.38
% Poor Accurately Predicted	8.93	37.77	29.03	10.77	28.03	4.05	32.16	20.92	0.00	12.12
% Poor and Non-Poor Accurately Predicted	92.32	87.29	91.04	93.86	90.19	92.99	83.69	86.92	92.51	88.89

Note: * p<0.05; ** p<0.01

Table 7. Logit Estimates of Poverty Status for All Families, 1998 and 2007 (Robust Standard Errors in Parentheses)

Variables	1998					2007				
	Gross Income			Income After Transfer		Gross Income			Income After Transfer	
	Official	200% Official	Relative	Official	Relative	Official	200% Official	Relative	Official	Relative
Demographic Characteristics										
Age	-0.045 ** (0.009)	-0.043 ** (0.007)	-0.031 ** (0.008)	-0.046 ** (0.008)	-0.042 ** (0.007)	-0.050 ** (0.008)	-0.032 ** (0.006)	-0.033 ** (0.006)	-0.045 ** (0.008)	-0.037 ** (0.007)
Marital Status: Never Married	0.830 * (0.383)	0.676 ** (0.250)	0.899 ** (0.273)	0.615 (0.383)	0.808 ** (0.270)	0.849 ** (0.285)	1.202 ** (0.236)	0.880 ** (0.259)	1.016 ** (0.318)	0.894 ** (0.268)
Marital Status: Divorced/Separated	0.939 ** (0.342)	0.509 * (0.244)	0.874 ** (0.257)	0.811 * (0.337)	1.063 ** (0.253)	0.513 (0.266)	0.666 ** (0.215)	0.474 * (0.233)	0.568 (0.296)	0.492 (0.255)
Marital Status: Widowed	0.178 (0.363)	0.413 (0.276)	0.203 (0.309)	-0.047 (0.382)	0.350 (0.332)	-0.135 (0.330)	0.765 ** (0.253)	0.452 (0.263)	-0.134 (0.356)	0.092 (0.291)
Female	0.376 (0.221)	0.518 ** (0.159)	0.526 ** (0.173)	0.351 (0.212)	0.348 * (0.170)	0.250 (0.186)	0.482 ** (0.145)	0.413 ** (0.155)	0.169 (0.192)	0.206 (0.162)
Race: Black	0.919 ** (0.229)	0.478 * (0.195)	0.671 ** (0.200)	0.726 ** (0.231)	0.746 ** (0.197)	0.722 ** (0.203)	0.590 ** (0.171)	0.678 ** (0.179)	0.471 * (0.221)	0.635 ** (0.181)
Race: American Indian	1.934 ** (0.561)	0.992 * (0.478)	1.227 ** (0.463)	1.244 * (0.554)	1.369 ** (0.497)	-0.042 (0.635)	0.580 (0.394)	-0.153 (0.636)	-0.743 (0.739)	0.351 (0.547)
Race: Asian	0.239 (0.652)	0.392 (0.550)	-0.101 (0.573)	-0.139 (0.712)	0.277 (0.543)	0.562 (0.536)	-0.118 (0.486)	0.304 (0.490)	0.525 (0.557)	-0.108 (0.518)
Race: Hispanic	-0.133 (0.536)	0.012 (0.387)	0.139 (0.394)	-0.377 (0.482)	0.255 (0.403)	-0.097 (0.403)	0.259 (0.319)	0.080 (0.390)	-0.617 (0.439)	-0.291 (0.394)
Family Size	-0.340 * (0.146)	-0.131 (0.097)	-0.217 * (0.105)	-0.598 ** (0.161)	-0.364 ** (0.111)	-0.162 (0.097)	-0.040 (0.079)	-0.142 (0.087)	-0.330 ** (0.127)	-0.346 ** (0.098)
Number of Children Under Six	0.337 (0.268)	0.362 * (0.168)	0.641 ** (0.179)	0.497 (0.258)	0.513 * (0.213)	0.575 ** (0.164)	0.568 ** (0.134)	0.607 ** (0.145)	0.484 * (0.191)	0.541 ** (0.146)
Single Mother	1.052 ** (0.342)	1.423 ** (0.280)	1.200 ** (0.299)	0.757 * (0.331)	0.920 ** (0.285)	0.867 ** (0.286)	0.844 ** (0.254)	0.975 ** (0.262)	0.194 (0.347)	0.590 * (0.273)
Nativity: Foreign-Born, Non-US Citizen	0.531 (0.472)	0.625 (0.355)	0.754 * (0.338)	0.599 (0.453)	0.350 (0.390)	1.048 * (0.430)	1.249 ** (0.341)	1.186 ** (0.359)	0.629 (0.457)	1.194 ** (0.378)
Nativity: Foreign-Born, US Citizen	0.409 (0.543)	0.051 (0.355)	0.312 (0.374)	0.558 (0.562)	0.063 (0.422)	0.881 * (0.423)	0.424 (0.399)	0.646 (0.409)	1.053 * (0.428)	1.128 ** (0.396)
Metropolitan Area	-0.218 (0.332)	-0.541 * (0.226)	-0.615 * (0.243)	-0.159 (0.331)	-0.569 * (0.251)	-0.547 * (0.221)	-0.521 ** (0.165)	-0.689 ** (0.175)	-0.423 (0.227)	-0.584 ** (0.186)
Labor Characteristics										
Education: Less Than High School	0.987 ** (0.235)	0.701 ** (0.189)	1.023 ** (0.198)	0.936 ** (0.243)	0.929 ** (0.204)	0.652 * (0.256)	0.918 ** (0.234)	0.821 ** (0.233)	0.445 (0.262)	0.827 ** (0.239)
Education: Some College	-0.012 (0.243)	-0.425 * (0.172)	-0.255 (0.184)	0.166 (0.233)	-0.291 (0.189)	0.097 (0.189)	-0.245 (0.150)	-0.276 (0.159)	0.236 (0.205)	-0.050 (0.164)
Education: College	-0.497 (0.352)	-0.798 ** (0.280)	-0.847 ** (0.279)	-0.345 (0.327)	-0.603 * (0.272)	-0.403 (0.308)	-0.492 ** (0.206)	-0.603 * (0.237)	-0.014 (0.304)	-0.415 (0.254)
Education: Graduate	-0.524 (0.481)	-1.073 ** (0.361)	-1.085 ** (0.416)	-0.237 (0.443)	-0.765 (0.399)	0.019 (0.409)	-0.963 ** (0.350)	-0.674 (0.363)	0.014 (0.436)	-0.545 (0.386)
Industry: Construction	-0.113 (0.536)	0.134 (0.359)	0.299 (0.415)	0.046 (0.519)	0.010 (0.432)	0.199 (0.457)	0.496 (0.346)	0.447 (0.370)	-0.094 (0.526)	0.308 (0.407)
Industry: Manufacturing	-0.408 (0.423)	-0.434 (0.294)	-0.309 (0.332)	-0.339 (0.396)	-0.389 (0.315)	-1.218 ** (0.379)	-0.082 (0.241)	-0.514 (0.288)	-0.810 * (0.388)	-0.427 (0.300)
Industry: Wholesale and Retail Sale	0.096 (0.426)	0.476 (0.305)	0.570 (0.344)	-0.128 (0.413)	0.176 (0.348)	-0.750 (0.411)	0.080 (0.273)	-0.439 (0.308)	-0.907 * (0.417)	-0.326 (0.315)
Industry: Financial Activities	-1.166 (0.648)	-0.715 (0.489)	-1.206 * (0.574)	-0.994 (0.579)	-0.936 (0.513)	-0.367 (0.509)	-0.317 (0.352)	-0.387 (0.410)	-0.550 (0.596)	-0.279 (0.415)
Industry: Professional and Business Services	-0.084 (0.431)	0.095 (0.311)	0.331 (0.344)	-0.020 (0.411)	0.041 (0.340)	0.203 (0.361)	0.440 (0.285)	0.421 (0.303)	-0.115 (0.383)	0.197 (0.306)
Industry: Educational and Health Services	-0.183 (0.452)	0.087 (0.339)	0.044 (0.385)	-0.145 (0.426)	-0.064 (0.356)	0.235 (0.305)	0.114 (0.238)	0.148 (0.253)	0.362 (0.313)	0.115 (0.267)
Occupation: Managerial, Business, and Professional	-0.032 (0.387)	-0.938 ** (0.294)	-0.670 * (0.325)	-0.063 (0.346)	-0.297 (0.310)	-0.398 (0.296)	-0.666 ** (0.207)	-0.634 ** (0.236)	-0.282 (0.316)	-0.467 (0.246)
Occupation: Services	0.840 ** (0.306)	0.439 * (0.205)	0.510 * (0.224)	0.603 * (0.293)	0.489 * (0.231)	0.106 (0.300)	0.597 ** (0.212)	0.611 ** (0.231)	0.164 (0.319)	0.457 (0.245)
Occupation: Sales and Related	0.361 (0.410)	-0.451 (0.303)	-0.287 (0.331)	0.323 (0.407)	0.005 (0.339)	0.549 (0.411)	0.217 (0.286)	0.763 * (0.308)	0.818 * (0.397)	0.654 * (0.312)
Unemployed	0.731 (0.562)	0.650 (0.405)	0.261 (0.502)	0.629 (0.597)	0.532 (0.486)	1.058 ** (0.392)	0.690 * (0.352)	0.505 (0.369)	1.198 ** (0.381)	0.532 (0.354)
Self-Employed	0.691 (0.425)	0.828 ** (0.299)	0.551 (0.344)	0.783 (0.407)	0.691 * (0.317)	0.067 (0.383)	0.611 * (0.271)	0.504 (0.296)	0.432 (0.429)	0.226 (0.322)
Combined Hours of Work (Log)	-0.342 ** (0.050)	-0.353 ** (0.043)	-0.339 ** (0.045)	-0.303 ** (0.048)	-0.244 ** (0.043)	-0.311 ** (0.039)	-0.290 ** (0.031)	-0.291 ** (0.032)	-0.295 ** (0.041)	-0.249 ** (0.032)
Constant (Poverty Status: 1=Poor; 0=Non-Poor)	1.303 (0.776)	3.288 ** (0.588)	1.968 ** (0.618)	1.826 * (0.778)	2.093 ** (0.621)	2.013 ** (0.636)	1.809 ** (0.509)	1.980 ** (0.540)	1.750 ** (0.711)	2.086 ** (0.571)
N	1830	1830	1830	1830	1830	1979	1979	1979	1979	1979
Pseudo R ² (%)	33.27	32.36	33.63	29.4	28.47	30.92	29.19	29.32	27.73	26.27
% Poor Accurately Predicted	39.26	60.28	55.84	29.54	43.08	37.83	59.97	52.14	29.81	39.86
% Poor and Non-Poor Accurately Predicted	89.67	80.38	83.33	88.69	84.04	87.92	79.13	82.01	88.38	82.82

Note: * p<0.05; ** p<0.01

Summary of Findings on the Determinants of Poverty

Variables	Working Poverty		General Poverty	
	1998	2007	1998	2007
Age		--	--	--
Marital Status: Never Married	++		++	++
Divorced/Separated	+		++	+
Widowed				
Female			++	+
Race: Black			++	++
American Indian			++	
Asian				
Hispanic				
Family Size	-		--	-
Number of Children Under Six	++	++	++	++
Single Mother	++	++	++	++
Educational Attainment: Less Than High School	++	+	++	++
Some College	--	-		
Bachelors	--	--	--	-
Graduate			-	
Employment Industry: Construction				
Manufacturing				-
Wholesale and Retail Sale				
Financial Activities				
Professional and Business Services				
Educational and Health Services				
Occupation: Managerial, Business, and Professional		-	-	-
Services	++	+	++	+
Sales and Related				++
Unemployed				++
Self--Employed	++		+	
Combined Hours of Work by Family Members (Log)	--	--	--	--
Nativity: Foreign--Born, Non--US Citizen				++
Foreign--Born, Naturalized US Citizen				++
Metropolitan Area	--	-	--	--

Note: ++ significant and positive coefficient in at least three models; + significant and positive coefficient in two models;

-- significant and negative coefficient in at least three models; - significant and negative coefficient in two models.

Changes in the Characteristics of Working Poverty Over Time

- No role in 1998 and negative role in 2007:
 - Age (older workers may have done better)
 - Managerial, Business, & Professional occupation (some)
 - Negative role in 1998 and no role in 2007:
 - Family size (some: larger families are not better off)
 - Positive role in 1998 and no role in 2007:
 - Never married
 - Divorced/separated
 - Self-employed
-

Differences in the Determinants of Working and General Poverty

- Higher likelihood of poverty for females, Blacks, never married, and large families does not consistently apply to working families
 - Lower likelihood of poverty for young, manufacturing industry, and managerial, business, and professional occupations does not consistently apply to working families
 - Increasing likelihood of poverty for foreign-born and sales occupation over time does not apply to working families
-

Policy Implications

- Inadequacy of wages: current minimum \$7.15
 - Positive but inadequate role of public transfers such as Earned Income Tax Credit
 - Mis-targeting of transfer to those with stable labor market attachment
 - Changing demographics of working poverty: not equally concentrated among:
 - Divorced/separated
 - Widowed
 - American Indian
 - One child
 - Foreign-born
 - Working less
-

Policy Implications

- Demographic and labor characteristics of working poverty are less predictable: It can affect people randomly
 - Obvious role of education up to the college level
 - Service occupations likely to consistently increase poverty
 - Unsystematic roles of many occupations and industries including education and health care
-