

**An Assessment of the Labor Market, Income, Social, Health,
Civic, Incarceration, and Fiscal Consequences of Dropping
Out of High School: Findings for Michigan Adults in the 21st
Century**

(EXECUTIVE SUMMARY)

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Flint, Michigan

April 2008

“This boy is ignorance. This girl is want. Beware them both, and all of their degree, but most of all beware this boy, for on his brow I see that written which is doom, unless the writing be erased”.

Charles Dickens,
A Christmas Carol

Introduction

Over the past seven years, a growing number of educational researchers, labor market analysts, national foundations, national and state business organizations, city mayors, governors, and state legislators have highlighted the educational, economic, and social problems of America’s high school dropouts. Dropout problems among America’s high school students remain excessively high, especially among students in large urban, public school districts, males, Black and Hispanic youth, and low income youth of all races. These high dropout rates have persisted despite the fact that the personal and societal economic costs associated with dropping out of high school appear to be both quite large and growing substantially. Male dropouts in particular have faced an increasing number of severe labor market difficulties in recent decades, with steep declines in their employment rates, their real weekly wages, and annual earnings. The labor market problems of male dropouts are particularly intense in states such as Michigan, which has faced severe labor market difficulties in recent years. The deteriorating labor market fortunes of male dropouts have reduced their ability to form independent households, to marry, to support their children, and to contribute positively to the fiscal position of state and national governments. The above Charles Dickens’ quote applies with equal force to the economic and social fate of male and female dropouts in Michigan today.

During the past year, the Mott Foundation called upon the Center for Labor Market Studies of Northeastern University to help develop a comprehensive set of analyses of the economic, labor market, social, civic, health and fiscal consequences of adults dropping out of high school before graduation. This executive summary provides an overview of key findings of that study with respect to the labor market, income, health, social, civic, criminal justice, and fiscal consequences of dropping out of school in Michigan. It is designed to provide the Mott Foundation as well as local and state public policymakers in Michigan, educators, students, and the public at large with comprehensive information on the consequences of completing additional years of schooling in the state.

Alternative Estimates of High School Graduation and Dropout Rates Among Michigan’s Young Adults In Recent Years

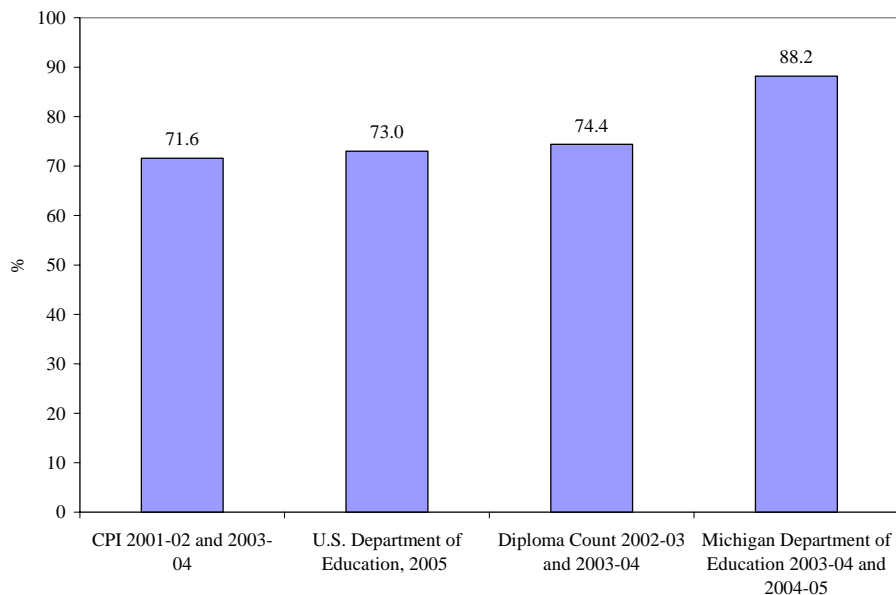
There are several methodologies that have been used by educational researchers and federal/ state educational agencies to estimate high school graduation and dropout rates for the nation, for states, and for individual school districts. These methods frequently yield quite different estimates of graduation rates. One of the methods used by the U.S. Department of Education and other researchers involves a comparison of the annual number of official high school graduates in a state (as measured by the number of high school diplomas awarded to public and private high school graduates) with the number of 17 year olds in the state. We adopted a slightly modified version of this graduation rate formula based on actual counts of diploma awards by amending the denominator to represent the estimated average number of 17 and 18 year olds in the state.

Our estimates of high school graduation rates in the state of Michigan for the 2002-2003 and 2003-2004 school years based on the above methodology reveal an average graduation rate of 74.4%. A second methodology

for estimating high school graduation rates uses data on the enrollment levels of students in each grade from 9 to 12 and through graduation at the end of grade 12 for a two year period in a given school district or state. This methodology known as the Cumulative Promotion Index (CPI) was developed by researchers at The Urban Institute in Washington, D.C. and it is the formula recommended by the U.S. Congress in the No Child Left Behind legislation. The 2003-2004 CPI estimate of the high school graduation rate for the state of Michigan was only 69.1 percent, a rate that was slightly below the national average of 69.9 percent. In a recent New York Times story, the U.S. Department of Education reported that their estimate of the on-time graduation rate for Michigan's Class of 2005 was 73.0%. This estimate was derived by taking the number of high school graduates in the state over the number of ninth graders four years earlier.

These three alternative measures yield very different graduation rates than those generated by Michigan's Department of Education. For example, the 2-year average graduation rate for the 2003-2004 and 2004-2005 school years that was reported by the Michigan Department of Education was 88.2%, which was approximately 17 percentage points higher than a 2-year average of the CPI graduation rate for the Classes of 2001 and 2004, 14 percentage points higher than that yielded by the diploma count methodology for the Classes of 2003 and 2004, and approximately 15 points higher than the recent estimate made by the U.S. Department of Education for the Class of 2005 (Chart 1).

Chart 1:
Comparisons of Alternative Graduation Rate Estimates for the State of Michigan



We have developed a fourth method for estimating the number of 16-24 year olds in Michigan who left school without obtaining a regular high school diploma. This method relies on multiple data sources and a series of estimates of undercounts to generate this estimate. During 2005, the estimated number of 16-24 year olds living in private households or in institutions in Michigan who lacked a regular diploma was 186,672. This group represented 15% of all 16-24 year olds living in the state in 2005. The estimated dropout rate was only 9.4% for teenagers but many of them were still enrolled in high school at the time of the 2005 ACS surveys. The dropout rate was just

under 20% for 20-24 year olds. Thus, we estimate that approximately one in five young adults in Michigan in recent years left high school without obtaining a regular high school diploma. For the U.S., applying the same methodology, we estimated that 22.5% of young adults leave school without receiving a regular high school diploma.

The Employment Behavior of Out-of-School Teens in Michigan in 2005-2006

The labor market problems of young high school dropouts in the U.S. and the state of Michigan have been quite severe in recent years, especially for teenaged dropouts in large cities, high poverty neighborhoods, and low income, Black families. Over the 2005-2006 period, only 30 of every 100 teenaged dropouts in Michigan were employed in a typical month, representing one-half of the employment rate of their out-of-school peers with a high school diploma or a GED certificate (Table 1). Teenaged dropouts in Michigan also were less likely to be working than their U.S. counterparts (30 vs. 39 percent).

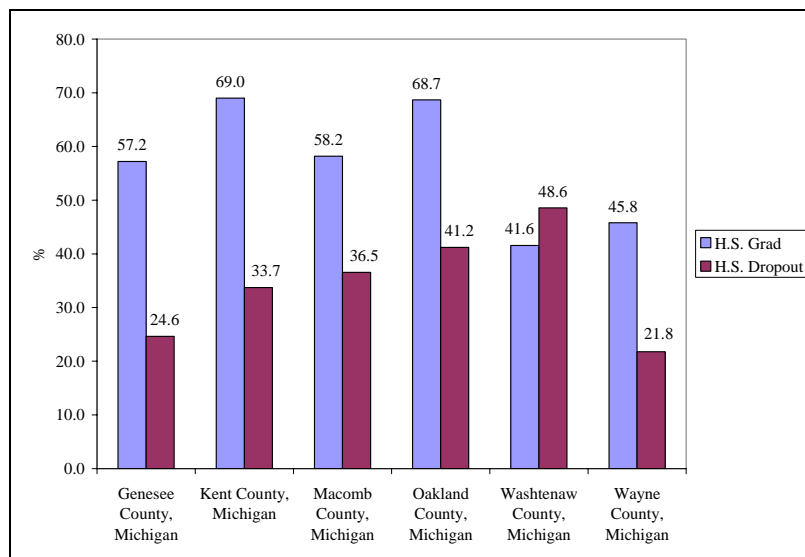
Table 1:
Employment to Population Ratios of Out of School 16 to 19 Year Olds by
Educational Attainment in the U.S., and the State of Michigan, 2005-2006 Averages (in %)

Geographic Area	(A) Total Out of School	(B) H.S. Graduates	(C) Dropouts
U.S.	52.8	62.4	38.8
Michigan	48.1	60.8	30.4

Source: 2005 and 2006 American Community Surveys, public use files, tabulations by authors.

In five of the six Michigan counties for which teen employment data were available, dropouts fared considerably worse than high school graduates in securing any type of job in recent years. In Genesee and Wayne Counties, only between one-fifth and one-fourth of teenaged dropouts were working and in the city of Detroit only 18 of every 100 teenaged dropouts were employed.

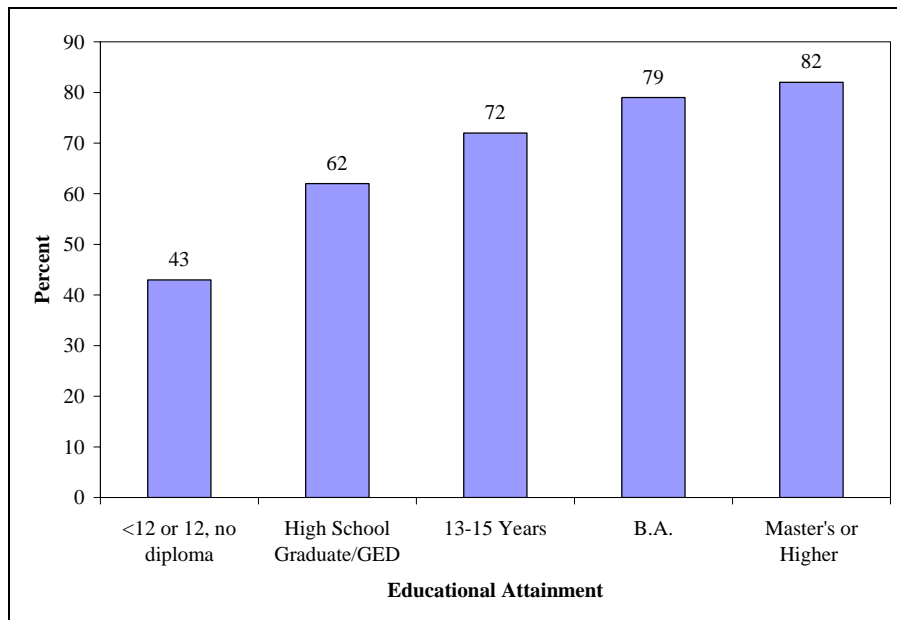
Chart 2:
Employment to Population Ratios of Out of School 16 to 19 Year Olds by
Educational Attainment in Michigan Counties, 2004-2005 Average (in %)



The Employment Behaviors of Michigan Adults (16-64 Years Old) in 2006

The labor force participation rates of Michigan adults and their success in finding employment during 2006 when they did participate in the labor market varied consistently across educational groups. Adults without a high school diploma were least likely to seek work and most likely to be unemployed when they did so than their better educated counterparts. Only 43 of every 100 working-age, non-elderly adults were employed at the time of the 2006 American Community Survey versus 62 of every 100 high school graduates, 72 of every 100 adults with one to three years of college, and 79 of every 100 bachelor degree holders in the state (Chart 3).

Chart 3:
Employment/Population Ratios of 16-64 Year Old Michigan Adults by Educational Attainment in 2006 (in %)



Source: Persons enrolled in school were excluded from the analysis.

The employment rates of both men and women in Michigan were strongly correlated with their educational attainment. Among males, only 48 of every 100 high school dropouts were employed at the time of the 2006 ACS survey versus two-thirds of their peers with a high school diploma and 86 to 88 percent of males with a bachelor's or higher degree (Table 2). Michigan men lacking a high school diploma fared far worse (13 percentage points lower) than their U.S. counterparts in obtaining employment in 2006. Among adult women, only slightly more than one-third of high school dropouts were working in 2006 versus 57 percent of high school graduates and 72 percent of bachelor degree holders. Those Michigan women with a bachelor's or higher degree were twice as likely as their peers without a high school diploma to be working in 2006. Similar to the findings for men, those Michigan women lacking a high school diploma also fared the poorest relative to their U.S. counterparts with a similar level of educational attainment.

Table 2:
Employment/Population Ratios of 16-64 Year Olds in Michigan and the U.S. by
Gender and Educational Attainment 2006 (in %)

Gender	Educational Attainment Level	Michigan	U.S.	Michigan – U.S. (in percentage points)
Male	<12 or 12, No H.S. Diploma	48.5	61.8	-13.3
	H.S. Diploma/GED	67.6	74.6	-7.0
	Some College	76.8	81.0	-4.2
	Bachelor Degree	86.0	87.8	-1.8
	Master's or Higher Degree	88.4	88.1	0.4
	Total	72.5	77.6	-5.1
Female	<12 or 12, No H.S. Diploma	35.2	40.7	-5.5
	H.S. Diploma/GED	57.0	61.4	-4.4
	Some College	67.9	69.9	-2.0
	Bachelor Degree	71.6	73.7	-2.1
	Master's or Higher Degree	75.8	76.4	-0.6
	Total	62.4	64.7	-2.3

Source: 2006 American Community Survey, public use files, tabulations by authors.

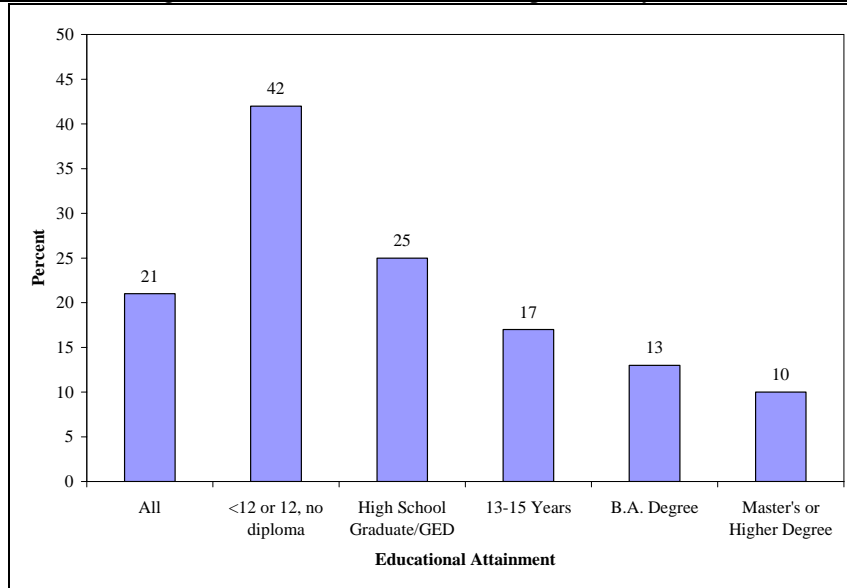
Note: (1) Military personnel are included as labor force participants and among the employed.

(2) Persons enrolled in school at the time of the ACS survey were excluded from the analysis.

Not only were adult dropouts in Michigan less likely to be employed at the time of the 2006 American Community Survey than their better educated peers, but they were considerably more likely to be jobless all year round. During 2006, 42 of every 100 Michigan adult dropouts (18-64 years old) were jobless the entire year versus only 25 of every 100 high school graduates, 17 of every 100 adults with one to three years of college, and 13 of every 100 bachelor degree holders (Chart 4). Among Michigan males, there was a steep increase in year round joblessness rates among all male subgroups with less than a bachelor's degree between 1979 and 2006. There were double-digit increases in year round joblessness rates among both male dropouts (14 percentage points) and high school graduates with no post-secondary schooling.

Chart 4:

Percent of 18-64 Year Old Michigan Adults with No Paid Work Experience by Educational Attainment During 2006



The Annual Earnings of 18-64 Year Old Michigan Adults By Educational Attainment in 2006

One of the most important measures of the labor market success of adults is their annual earnings from the labor market including self-employment. The annual earnings of an adult are influenced by his degree of attachment to the labor force during the year, weeks and hours of paid work during the year, and average hourly earnings while employed. The mean annual earnings of 18-64 year old Michigan adults during 2005-2006 by their educational attainment are displayed in Table 3.

Table 3:
Mean Annual Earnings of Adults (16-64) in Michigan and the U.S. During 2005-2006

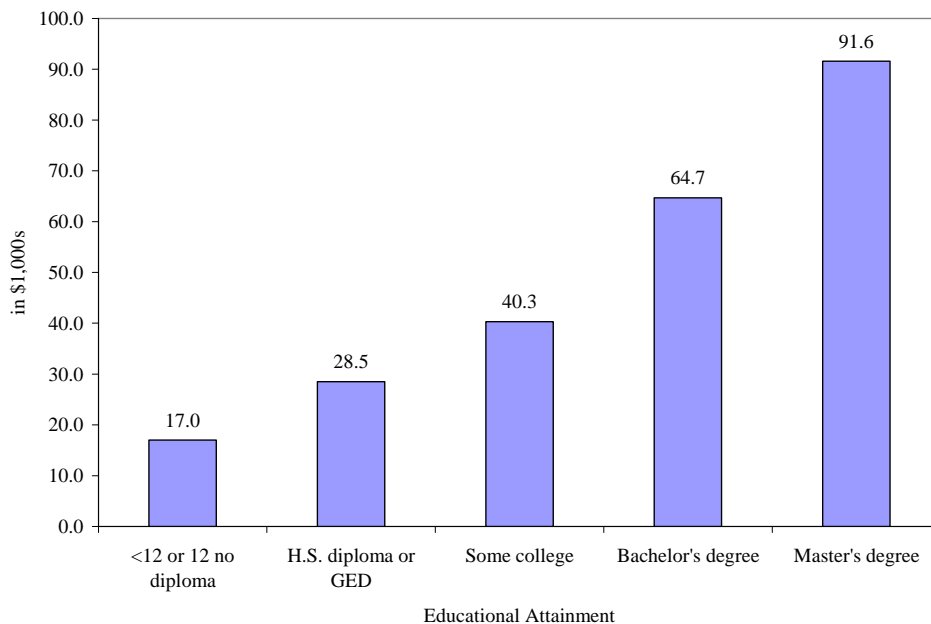
Area	Educational Attainment	(A) All	(B) Men	(C) Women
Michigan	<12 or 12, No H.S. Diploma	\$12,926	\$17,058	\$7,473
	H.S. Diploma/GED	\$21,779	\$28,514	\$14,598
	Some College	\$30,658	\$40,320	\$21,704
	Bachelor Degree	\$48,233	\$64,763	\$32,868
	Master's or Higher Degree	\$72,841	\$91,603	\$52,018
	Total	\$32,108	\$41,624	\$22,338
United States	<12 or 12, No H.S. Diploma	\$14,196	\$18,977	\$8,237
	H.S. Diploma/GED	\$23,255	\$29,656	\$16,261
	Some College	\$32,044	\$40,985	\$23,980
	Bachelor Degree	\$51,460	\$67,923	\$35,990
	Master's or Higher Degree	\$75,952	\$99,572	\$51,778
	Total	\$34,036	\$43,585	\$24,255

Note: Persons enrolled in school at the time of the ACS survey were excluded from the analysis. Persons with no paid employment during the year were assigned annual earnings of zero.

Source: 2006 American Community Surveys, public use files, tabulations by authors.

The mean annual earnings of all non-elderly Michigan adults, including those with no paid employment during the year, were \$32,108. These mean earnings ranged considerably across the five educational groups both overall and for men and women separately. High school dropouts achieved mean annual earnings of less than \$13,000 versus a mean of nearly \$21,800 for high school graduates, \$30,600 for those completing one to three years of college, and \$48,200 for bachelor degree holders. Adults with a Master's or higher degree obtained the highest mean annual earnings of \$72,841, nearly six times as high as the mean annual earnings of high school dropouts. The mean annual earnings of both male and female dropouts in Michigan lagged considerably behind those of their better educated peers. Among males, the mean earnings of high school graduates were approximately \$11,500 or two-thirds higher than those of high school dropouts while males with a bachelor's degree obtained mean earnings of \$64,763 that were nearly four times higher than those of male high school dropouts (Chart 5). Among women, high school dropouts had mean earnings of less than \$7,500, only half as high as those of high school graduates and barely more than one-fifth as high as those of their female peers with a bachelor's degree.

Chart 5:
The Mean Annual Earnings of 18-64 Year Old Males in Michigan by Educational Attainment, 2005-2006 (in \$1,000's)

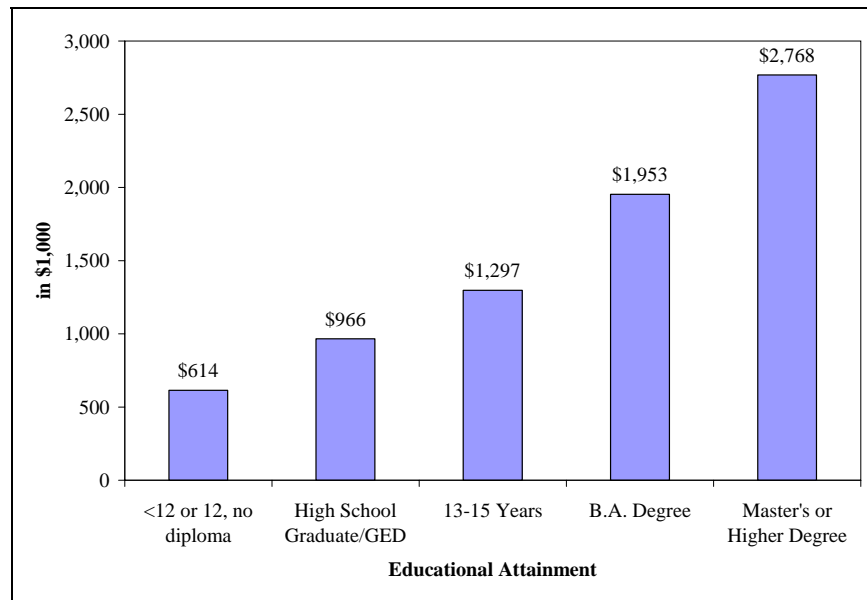


The annual earnings of Michigan adults in 2006 in each single age group from ages 18 to 64 and in each educational group can be combined to provide estimates of their expected lifetime earnings.* Estimates of the expected mean lifetime earnings of Michigan adults in each of five educational groups as of 2005-2006 are displayed in Chart 6. High school dropouts (both genders combined) had an expected mean lifetime earnings of only \$614,000 versus nearly \$1.0 million for high school graduates, \$1.3 million for adults with 1-3 years of college, and

* The lifetime earnings estimates were calculated by simply summing the mean annual earnings of each single age group from 18 to 64. The underlying assumption is that the mean earnings of each age group in each educational group will remain unchanged over their working life. Given recent earnings trends in Michigan, this will yield conservative estimates of the costs of dropping out of high school.

\$1.95 million for those with a bachelor's degree. High school dropouts would make more than one-third less than high school graduates, less than one-half of those with some college, and under one-third of those with a bachelor's degree.

Chart 6:
Mean Lifetime Earnings of Michigan Adults from Ages 18-64 by Educational Attainment, Both Genders Combined, 2005-2006 Cross Sectional Snapshot



Trends in the Expected Lifetime Earnings of Michigan Adults By Educational Attainment

The mean lifetime earnings of Michigan males with no high school diploma declined considerably by \$737,000 or 47 percent between 1979 and 2006 (Table 4). Male high school graduates and those with 1-3 years of college also experienced sharp declines in their mean lifetime earnings but not as large as those incurred by male high school dropouts. In 2006, a male high school graduate in Michigan would be expected to earn \$443,000 more over his lifetime than a high school dropout while a bachelor degree holder would earn nearly \$1.8 million more, a relative difference of more than three to one. Among adult women, mean lifetime earnings of all educational groups, except high school dropouts, increased over the 1979-2006 period, with the size of the increases rising with the educational attainment of women through the bachelor degree level.

Table 4:
Trends in the Real Mean Lifetime Earnings of Michigan Adults by Gender and
Educational Attainment, Selected Years 1979 to 2006
(in Constant 2006 Dollars)

Gender	Educational Attainment	1979	1989	1999	2006	% Change, 1979-2006
Male	<12 or 12, No HS Diploma	1,554,718	1,193,947	1,117,910	817,896	-47.4
	HS Diploma/GED	2,121,008	1,723,143	1,628,373	1,261,036	-40.5
	1-3 Years of College	2,429,131	2,151,185	2,136,280	1,709,891	-29.6
	Bachelor's Degree	2,935,877	2,943,226	3,021,057	2,592,231	-11.7
	Masters or Higher Degree	3,276,969	3,580,145	3,731,548	3,413,276	4.2
	Total	2,190,813	2,052,806	2,145,672	1,794,448	-18.1
Female	<12 or 12, No HS Diploma	382,827	387,334	501,950	358,370	-6.4
	HS Diploma/GED	615,984	650,686	763,801	655,209	6.4
	1-3 Years of College	778,167	911,960	1,052,713	925,579	18.9
	Bachelor's Degree	937,139	1,213,121	1,424,310	1,352,850	44.4
	Masters or Higher Degree	1,541,472	1,808,496	1,979,409	2,040,455	32.4
	Total	655,434	816,978	1,029,763	976,392	49.0

Poverty/ Near Poverty Problems of Michigan Adults

Given the steep declines that took place in the real annual earnings of the typical adult high school dropout in Michigan over the past few decades and the sharp drop in marriage rates among adults with no post-secondary schooling, one would expect that adult dropouts would encounter a rising incidence of income inadequacy problems. Such clearly was the case. Between 1979 and 2006, the percent of 18-64 year olds that were categorized as poor or near poor rose substantially among Michigan adults without a four-year college degree, fell modestly among Bachelor degree holders and stayed constant among adults with a Master's or higher degree. The increase in the incidence of poverty/ near poverty problems was highest among those adults lacking a high school diploma/ GED. In 1979, only 19% of these adults were categorized as poor or near poor; however, by 2006, one-third of adult Michigan residents without a high school diploma fell into the ranks of the poor/ near poor (Table 5).

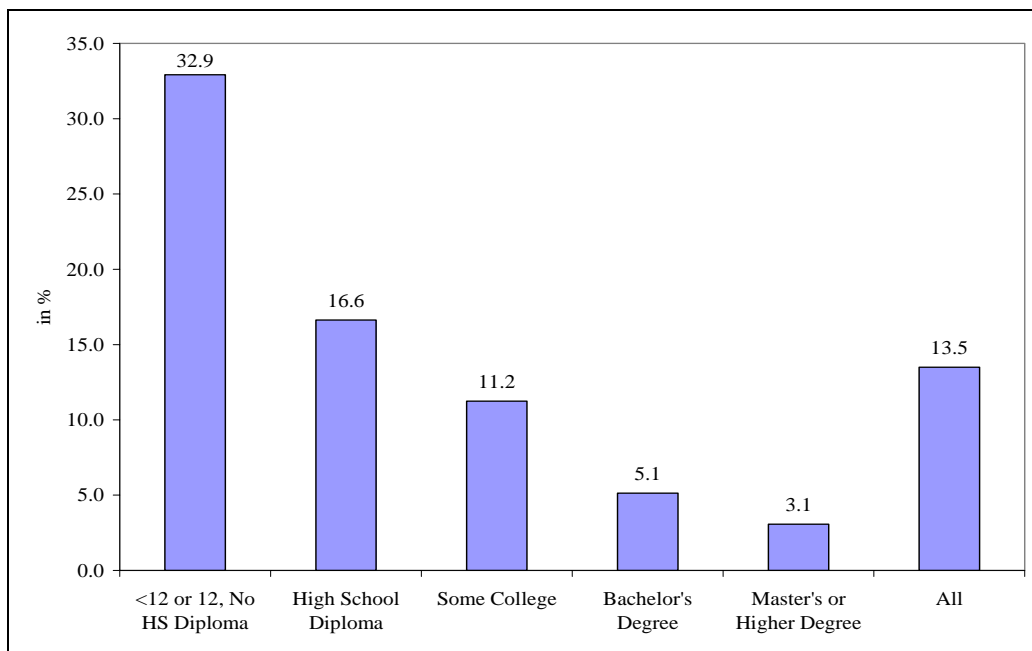
Table 5:
Trends in the Poverty/Near Poverty Rates of Michigan Adults 18-64 Years Old By Educational Attainment, 1979-
2006

Educational Attainment	(A) 1979	(B) 1989	(C) 1999	(D) 2006
<12 or 12, No HS Diploma	19.2	28.1	28.1	32.9
High School Diploma	8.9	12.9	12.9	16.6
Some College	7.9	9.4	8.3	11.2
Bachelor's Degree	5.9	4.8	4.6	5.1
Master's or Higher Degree	3.1	3.5	3.3	3.1
Total	10.6	12.9	11.4	13.5

Note: The near poor are those persons who live in families with incomes above the poverty line but less than 125% of the poverty line.

In 2006, the incidence of poverty/ near poverty problems among Michigan adults varied considerably across the five educational groups. Just under one-third of adult high school dropouts fell into this income inadequacy group versus one of every six high school graduates, only 5 percent of bachelor degree holders, and 3 percent of adults with a Master's or higher degree. Michigan high school dropouts were twice as likely to be poor/ near poor as high school graduates and eleven times more likely to do so than their best educated counterparts (Chart 7).

Chart 7:
Percent of the Michigan Adult Population (18-64) With Annual Incomes Below 125% of the Federal Poverty Line for Their Family Size and Composition

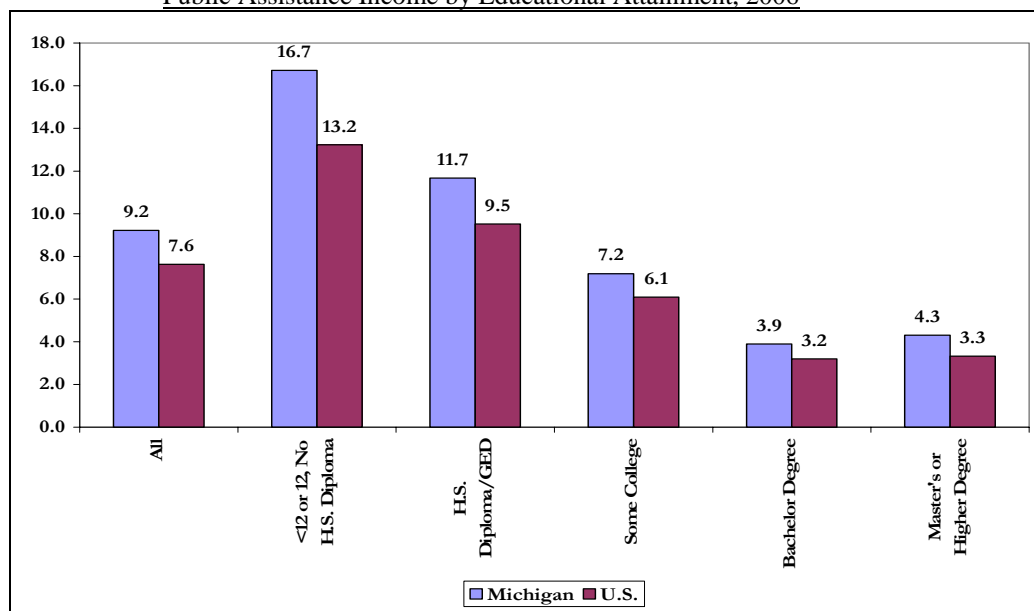


Receipt of Cash and In-Kind Public Assistance Income by Michigan and U.S. Adults by Their Level of Educational Attainment in 2006

The limited annual earnings of employed adults without a high school diploma in Michigan and across the nation and their much higher rates of year-round joblessness and poverty/ near poverty problems can be expected to increase their reliance on various forms of cash public assistance income to support themselves and their families. In Michigan, approximately 17 of every 100 adults lacking a high school diploma or a GED certificate were recipients of some type of cash public assistance income versus 12 percent of high school graduates, slightly more than 7 percent of those adults with one to three years of college, and only 4 percent of adults with a bachelor's or higher degree (Chart 8). High school dropouts in Michigan were four times as likely as their peers with a Bachelor's or higher degree to receive some type of cash public assistance income. Very similar patterns prevailed in the U.S. where 13 of every 100 adults without a high school diploma or GED were dependent on some form of cash public assistance income versus only 3 percent of similar-aged adults with a Bachelor's or higher academic degree. It should be noted, however, that adults without a high school diploma in Michigan were more dependent than their

U.S. counterparts on some form of cash public assistance income to support themselves (17% vs. 13%), indicating more severe structural labor market problems among dropouts in the state.

Chart 8:
Percent of the 16-60 Year Old Population in Michigan and the U.S. Who Were Dependent on Some Form of Cash Public Assistance Income by Educational Attainment, 2006



Above average fractions of Michigan adults without a high school diploma also were recipients of key in-kind transfers from the federal and state government in 2004/2005. One-third of 16-64 year olds in Michigan received Medicaid or Medicare health coverage, one fourth were recipients of food stamps, 14 percent either received a Federal Earned Income Tax Credit, and over 8 percent obtained rental housing subsidies. High school dropouts typically were twice as likely as high school graduates to receive these in-kind transfers and were ten to twenty times more likely to do so than their Michigan peers with a bachelor's degree.

Marriage Rates of Michigan Adults By Educational Attainment

Marriage prospects of adults in the U.S. are positively strongly associated with their earnings potential. As a consequence of rising earnings differences across educational groups, educational attainment in Michigan and the U.S. since the late 1970's has become much more strongly correlated with marriage rates. Marriage rates have been declining nearly continuously in the U.S. and Michigan over the past few decades. However, trends in marriage rates have been characterized by a substantial degree of variability among adults with different levels of schooling. Between 1980 and 2006, marriage rates either held steady or declined very slightly for both men and women with a four year or higher college degree. In contrast, marriage rates have declined sharply over this 26 year period for persons without a high school diploma or any substantial post-secondary schooling (Table 6).

Table 6:
Trends in Marriage Rates Among 20-64 Year Old Native-Born Males in Michigan and the U.S. by
Educational Attainment, 1980-2005/06 (In %)

Educational Attainment	1980	1990	2000	2005/06	Percentage Point Change, 1980-2005/06
<12 or 12, No H.S. Diploma	69.3	56.1	46.0	39.0	-30.3
H.S. Diploma/GED	69.8	61.1	56.0	51.6	-18.2
Some College	60.1	60.0	59.2	54.7	-5.4
Bachelor Degree	70.3	67.2	68.2	67.6	-2.8
Master's or Higher Degree	80.6	80.1	78.6	77.4	-3.1
All	68.3	61.9	59.2	55.9	-12.4

The steep declines in marriage rates among both men and women with no post-secondary schooling have severe negative inter-generational, social and economic repercussions for both individuals and society. National research findings have consistently revealed that a child raised in a low income, single parent family is much more likely to drop out of high school, be less likely to attend college, be both out-of-school and out-of-work in their late teens and early 20s, engage in criminal activity, become teen parents, and be more likely to become incarcerated.

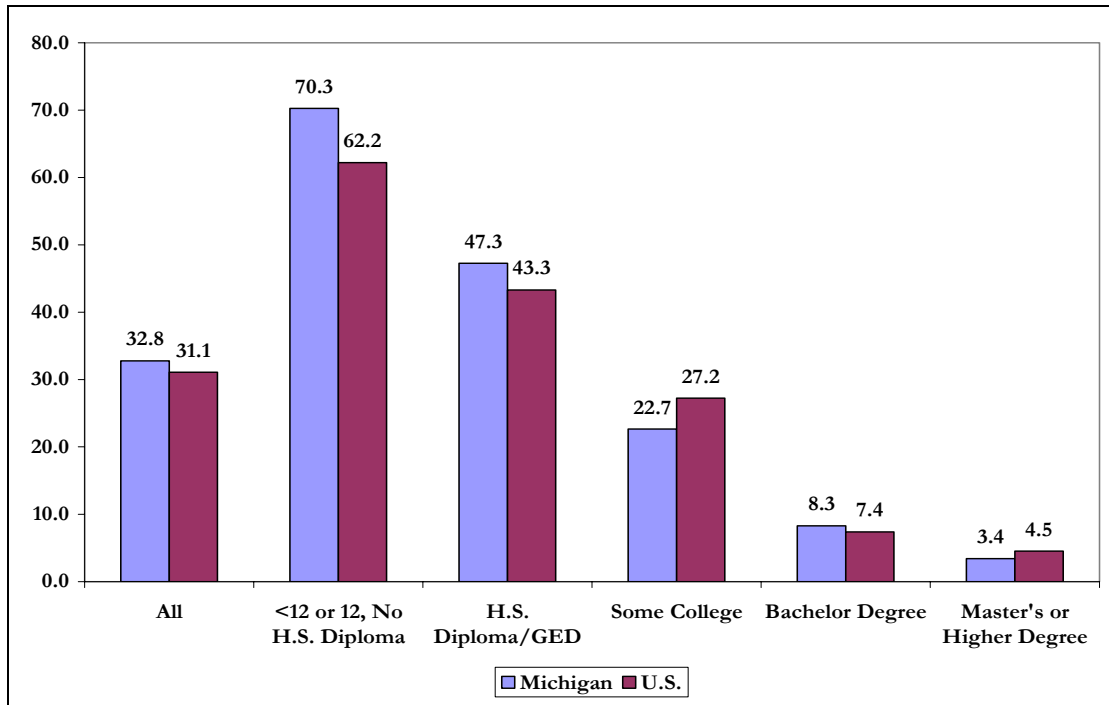
Out of Wedlock Births By Educational Attainment of the Mother

Despite steeply falling marriage rates, birth rates have not declined as sharply among the less educated. This has resulted in a rising number of out-of wedlock births to less educated women. In Michigan, we conservatively estimate that nearly one-third of all births to women in 2006 were characterized as out-of-wedlock compared to 31 percent for the entire nation (Chart 9). The percentage share of births that was out-of-wedlock was highest among those women lacking a high school diploma or a GED and lowest among the best educated. Seven out of 10 births to Michigan women without a high school diploma were out-of-wedlock. In Michigan, and the U.S., out-of-wedlock births, unfortunately, were also quite high among female high school graduates (47%), but they fell sharply for women with a Bachelor's or higher degree. The share of births to unmarried women in Michigan was 20 times higher among high school dropouts than among women with a Master's or higher degree.

Given the very limited annual earnings of single mothers without a high school diploma and the frequent absence of a second adult earner in such families, a high share of low educated, single parent families in Michigan as well as in the U.S. were poor or near poor in 2006. The economic well-being of families with children is strongly linked to the educational attainment of the heads of those families and their marital status. During 2006, nearly 40% of single parent families in Michigan were poor or near poor. The share of Michigan's single parent families that were poor or near poor varied quite widely by the educational attainment of the family head. Nearly two-thirds of single parent families headed by an adult lacking a high school diploma/GED were poor or near poor. Having only a high school diploma also did not shield many single parent families from having a poverty/near poverty problem. An estimated 47 percent of single parent families headed by an individual with a high school diploma or GED were poor or near poor versus only 15% of such families headed by an adult with a Bachelor's or higher degree. Children

raised in such low income single parent families for a sustained period of time will face a series of adverse behavioral, cognitive, health, nutrition, and school performance difficulties.

Chart 9:
Percent of New Births to Michigan and U.S. Women (15-50 Years Old) That Were Out-of-Wedlock by Educational Attainment of the Mother, 2006 (ACS)



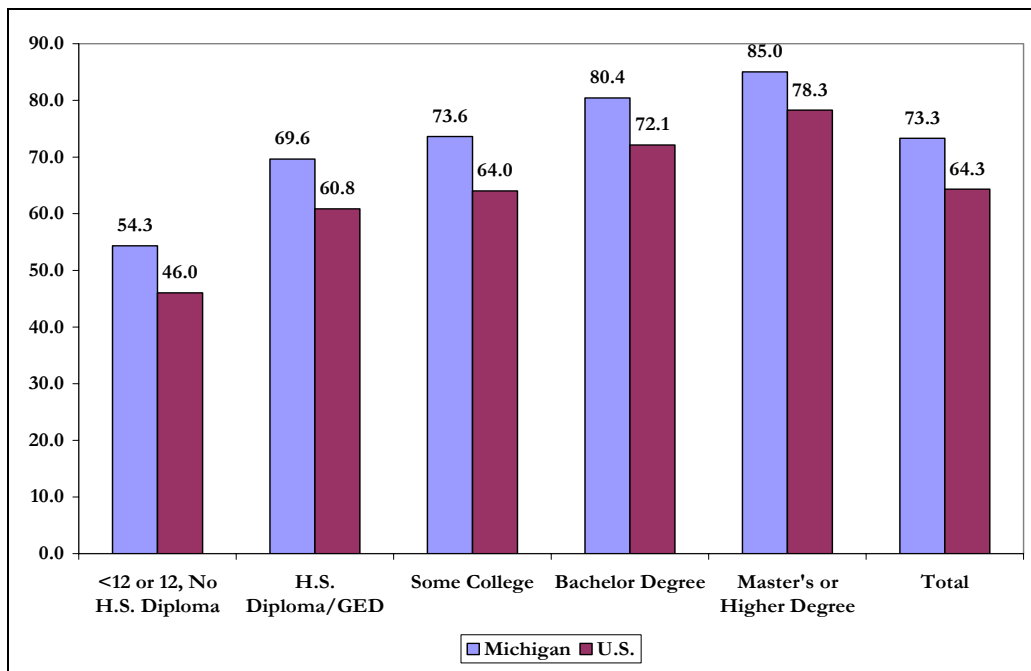
Educational Attainment, Home Ownership, and the Value of Homes Owned

The ability of American adults to own their own homes has been a core element of the American Dream for many decades. Housing analysts and other social scientists have frequently cited the importance of home ownership to family and child economic success, and national public opinion polls often find this goal of home ownership to be considered fundamental to the achievement of the American dream. Michigan households were more likely to own their homes than their peers in the U.S. An estimated 73 percent of households in Michigan in 2006 owned the housing unit that they occupied versus only 64 percent for the entire nation. However, these home ownership rates in both Michigan and the U.S. varied widely by the educational attainment of the householder. In Michigan, home ownership rates ranged from a low of slightly above 54% for households headed by an individual lacking a high school diploma/GED, to nearly 70% for high school graduates, and to a high of 84% for households headed by an adult with a Master's or more advanced degree (Chart 10).

The mean values of the housing units owned by Michigan's non-elderly households also varied positively with their educational attainment. The mean value of these housing units in 2006 in Michigan was approximately \$192,000. In Michigan, the mean values of these homes ranged from a low of \$122,000 among those households

headed by an adult lacking a high school diploma/GED, to \$153,000 among high school graduates, to \$236,000 among four year college graduates, and to a high of just under \$293,000 for households headed by an adult with a Master's or higher degree.

Chart 10:
Home Ownership Rates of Households Headed by an Individual 16-64 Years Old by Educational Attainment in Michigan and the U.S.: 2006
(in %)



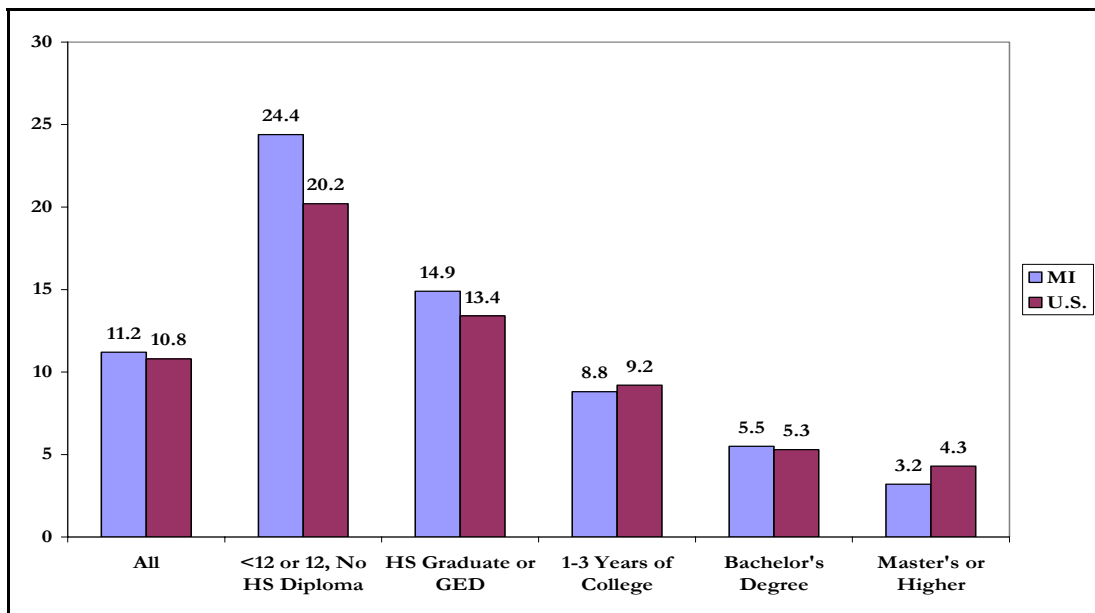
The mean values of homes have a number of important fiscal consequences for local governments across the state, given their frequently high degree of dependence on the property tax for financing their public service activities. Mean expected annual property tax payments in Michigan ranged from lows of \$1,321 for those without a high school diploma and \$1,436 for those with a high school diploma/GED to highs of \$2,634 for those with a Bachelor's degree and \$3,325 for those with a Master's or higher degree. A Michigan householder with a Bachelor's degree would be expected to pay 2.3 times as much in property taxes per year as their counterparts lacking a high school diploma.

The Self-Reported Health Status of Michigan and U.S. Adults By Their Level of Educational Attainment

There are a variety of health outcomes that are linked to the educational attainment of adults. Less educated adults in both Michigan and the U.S. are less likely to be covered by health insurance, less likely to have access to medical care, less likely to be in good health and more likely to be exposed to various illnesses and diseases, disability problems, and lower life expectancy.

In recent years, only 11 per cent of Michigan’s non-elderly adults rated their health status as “fair” or “poor”. The fraction of the state’s adults rating their health status as fair or poor ranged from a high of 24 per cent among those lacking a high school diploma/GED certificate to 15 percent among high school graduates and to lows of 3 to 5 per cent among those with a Bachelor’s or higher degree (Chart 11). Adult high school dropouts in Michigan were 1.7 times as likely as high school graduates to report being in only fair or poor health, and they were more than four times as likely to do so as their counterparts with a Bachelor’s or more advanced degree. The poorer health of Michigan’s less educated adults will lead to higher future rates of disability and medical outlays, a major part of which is financed by the Medicaid systems, as well as to lower rates of employment, lower lifetime earnings, and lower life expectancy.

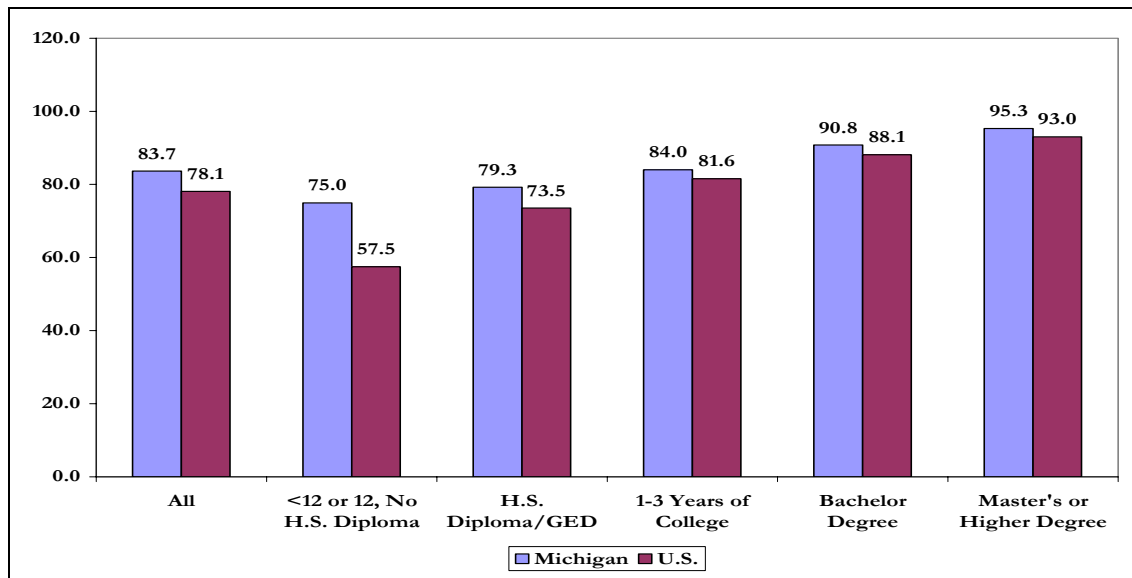
Chart 11:
Percent of 18-64 Year Old Adults in Michigan and the U.S. Reporting Only Fair or Poor Health, by Educational Attainment, March 2006-2007(in %)



Health Insurance Coverage Rates of Michigan and U.S. Adults (18-64 Years Old) by Educational Attainment, 2006-2007

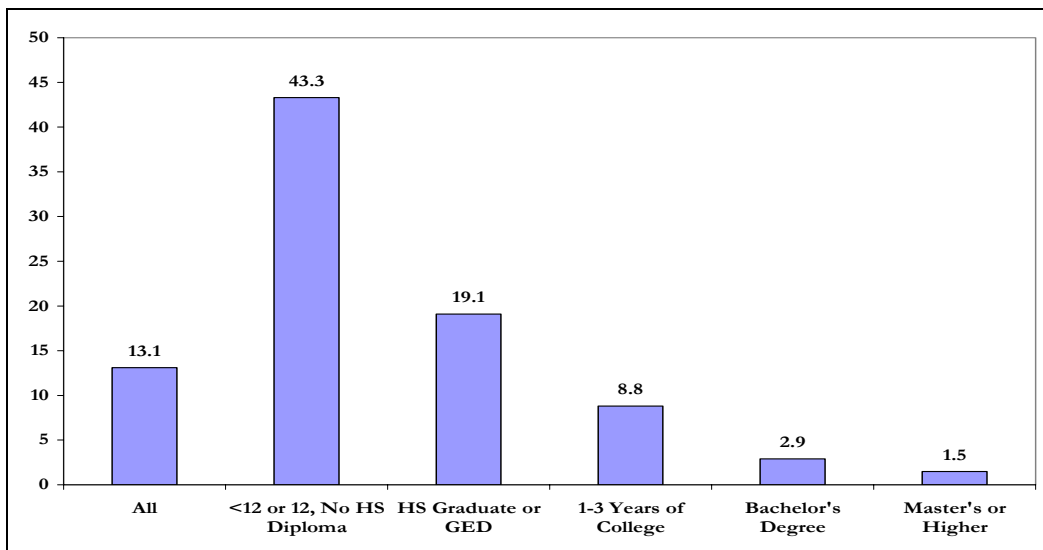
Higher shares of less educated adults in both Michigan and the U.S. not only have poorer health, but they also are more likely to lack any type of health insurance coverage. In both Michigan and the nation, the share of non-elderly adults who were covered by any type of health insurance varied widely in 2005-2006 by their educational attainment. During the 2005-2006 period, overall health insurance coverage rates of Michigan adults ranged from a low of 75 percent among those persons lacking a high school diploma/GED to 79 percent among high school graduates and to a high of 95 per cent for those adults holding a Master’s or more advanced academic degree (Chart 12).

Chart 12:
Health Insurance Coverage Rates of Michigan and U.S. Adults (18-64 Years Old) by Educational Attainment, 2005-2006 Averages (In Percent)



Less educated adults in Michigan who were employed also were less likely to be covered by employer provided health insurance. Only 57 percent of employed Michigan adults lacking a high school diploma reported to be covered by an employer provided health insurance coverage plan versus 67 percent of adults with a Bachelor's degree. The relatively high rate of health insurance coverage among Michigan adults with no regular high school diploma was not attributable to a high rate of health insurance coverage at the workplace but rather to high rates of Medicaid/Medicare insurance coverage, which is subsidized by the state's taxpayers (Chart 13).

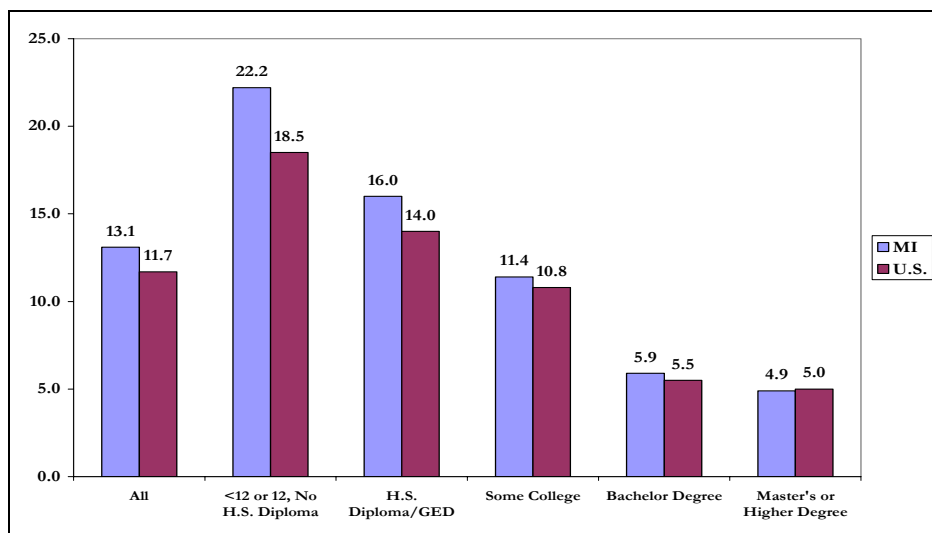
Chart 13:
Percent of Michigan Adults (18-64) with Some Health Insurance Coverage Who Were Covered by Medicare/Medicaid, 2005-2006 Averages



Links Between the Educational Attainment and Disability Status of Adults in Michigan and the U.S, 2006

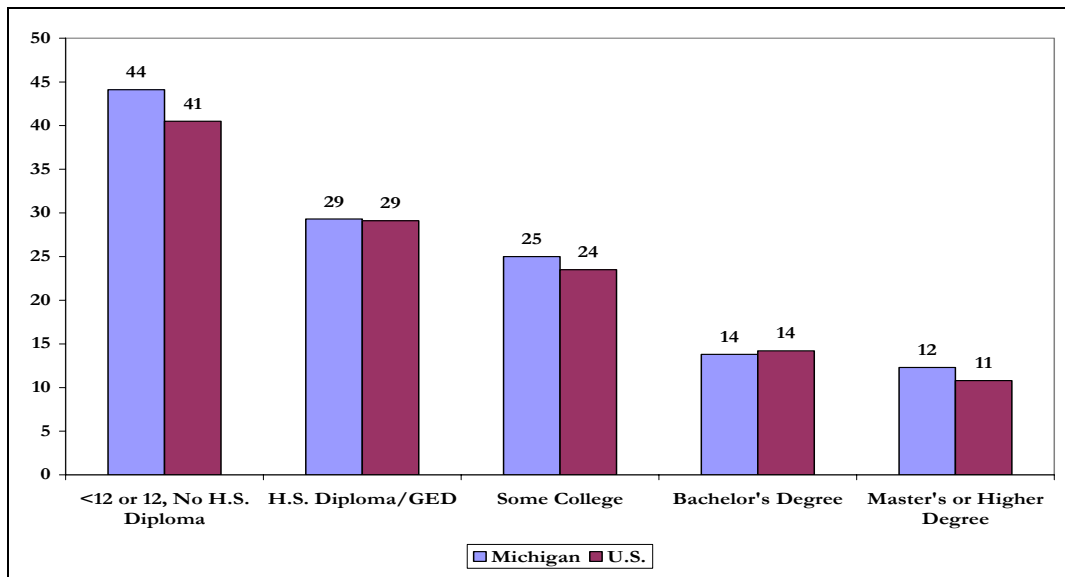
The disability status of adults across the nation has been found to be strongly linked to their educational attainment. Thirteen percent of 16-60 year olds in Michigan were disabled compared to 11.7 percent of similar aged adults across the entire nation. In both Michigan and the U.S., disability rates were highest for those without a high school diploma. Twenty two percent of 16-60 year old persons without a high school diploma/GED in Michigan reported to have some type of mental/physical disability versus 18 percent among the same educational group in the entire U.S. The reported incidence of disability problems declined steadily with higher levels of educational attainment in both Michigan and the U.S. In Michigan, the incidence of disability problems among high school graduates was 16 percent, among those with some college it was 11 percent, and among those with a Bachelor's degree it was slightly below 6 percent (Chart 14). High school dropouts in Michigan were nearly 4 times as likely as bachelor degree holders to report themselves as being disabled in 2006.

Chart 14:
The Estimated Disability Problems Among 16-60 Year Old Adults by Level of Educational Attainment in Michigan and the U.S., 2006 (In %)



Given the high levels of joblessness among disabled adults with no high school diploma and their far more limited earnings when they were employed, one would expect a higher incidence of poverty/near poverty problems among disabled adults without high school diplomas. In Michigan, during 2006, thirty percent of the state's disabled adults were members of poor/near poor families. The incidence of such income inadequacy problems among the disabled adult population in both Michigan and U.S., however, varied quite considerably across educational attainment subgroups. In Michigan, the percent of disabled adults who were poor/near poor ranged from highs of 44% among those lacking a high school diploma and 29% among those with only a high school diploma or a GED to lows of 12% to 14% among those with a Bachelor's or a Master's degree. (Chart 15).

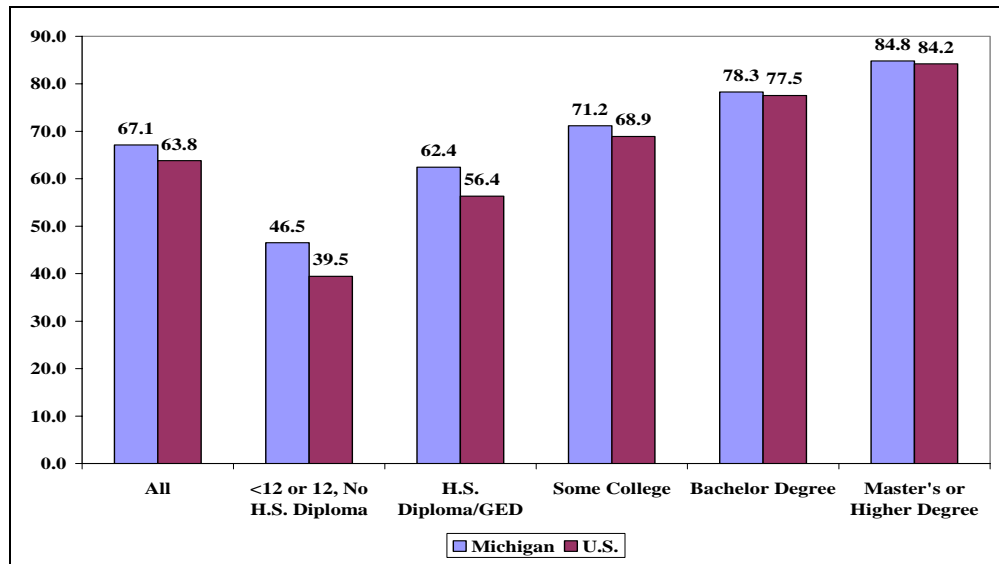
Chart 15:
Percent of 16-60 Year Old Disabled Adults in Michigan and the U.S. Who Were Poor/Near Poor in 2006 by
Educational Attainment



Civic Engagement and the Educational Attainment of Michigan Adults

A society cannot foster a strong democracy without active civic engagement by a substantial majority of its citizens and both formal schooling/ higher literacy levels to contribute to more substantial civic engagement. As John Adams, the nation’s second president, once remarked, “Liberty cannot be preserved without a general knowledge among the people.” Our analysis of an array of national data bases for U.S. and Michigan adults revealed that less educated persons were considerably less likely to be engaged in civic activities, including voting in national, state, and local elections, volunteering for civic/social organizations, or keeping themselves informed of political developments. The voting rate of adults (18 and older) with a Bachelor’s or higher degree in Michigan in the 2004 Presidential election was twice as high as that of adults lacking a high school diploma (Chart 16). Michigan adults with a high school diploma were 16 percentage points more likely to vote in that election than their peers without a high school diploma (62% versus 46%). Not only were adults without a high school diploma less likely to vote in national and state elections, but they also were substantially less likely to volunteer for a wide array of civic, political, and social organizations than their more educated fellow residents. When they did volunteer, adult school dropouts were most likely to volunteer for church organizations and children’s sports activities (soccer and basketball) than for other types of volunteer organizations including civic, labor, health, political, and social organizations. In both Michigan and the U.S., the best educated adults were considerably more likely to provide volunteer services for civic and political organizations than were adults with no post-secondary schooling.

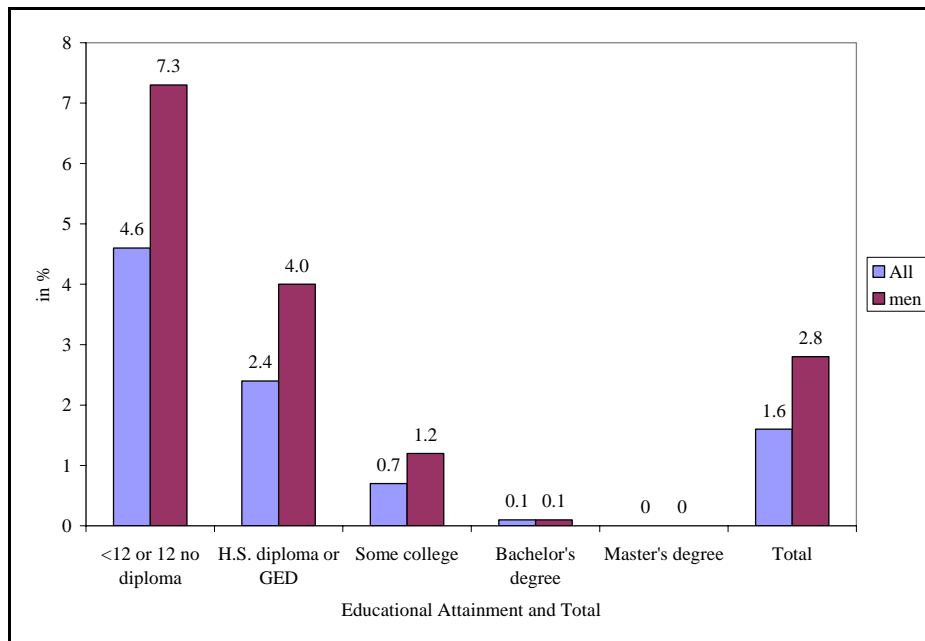
Chart 16:
Percent of Voting Eligible Adults (18 and Older) Who Voted in the November 2004 Election by Level of Educational Attainment, Michigan versus U.S.



Incarceration Experiences of Michigan Adults By Educational Attainment

Another adverse social consequence of not graduating from high school, especially for males, is the increased likelihood that young high school dropouts will engage in criminal activity, generate much higher victimization costs, be arrested and convicted, and be incarcerated more often than their better educated peers. Less educated adults were far more likely to be institutionalized than their better educated peers in Michigan. Younger high school dropouts (under 34) were twice as likely to be incarcerated as high school graduates and nearly 50 times more likely to be incarcerated as their Michigan peers with a bachelor’s degree in 2006. These incarceration developments have very adverse short and long-term effects. Being jailed today sharply reduces the future earnings potential of both men and women, with the size of these earnings losses ranging from 20 to 25 percent among men and to more than 40 percent among women at the national level. The lower future earnings potential of the formerly incarcerated also reduces their marriage potential, their future tax contributions to federal, state, and local governments, and increases their dependence on cash and in-kind public transfers to support themselves and their families. The state of Michigan and its taxpayers simply cannot afford to support large numbers of adult high school dropouts with criminal records.

Chart 17:
Institutionalization Rates of 18-34 Year Olds in Michigan by Educational Attainment, 2006
(in %)



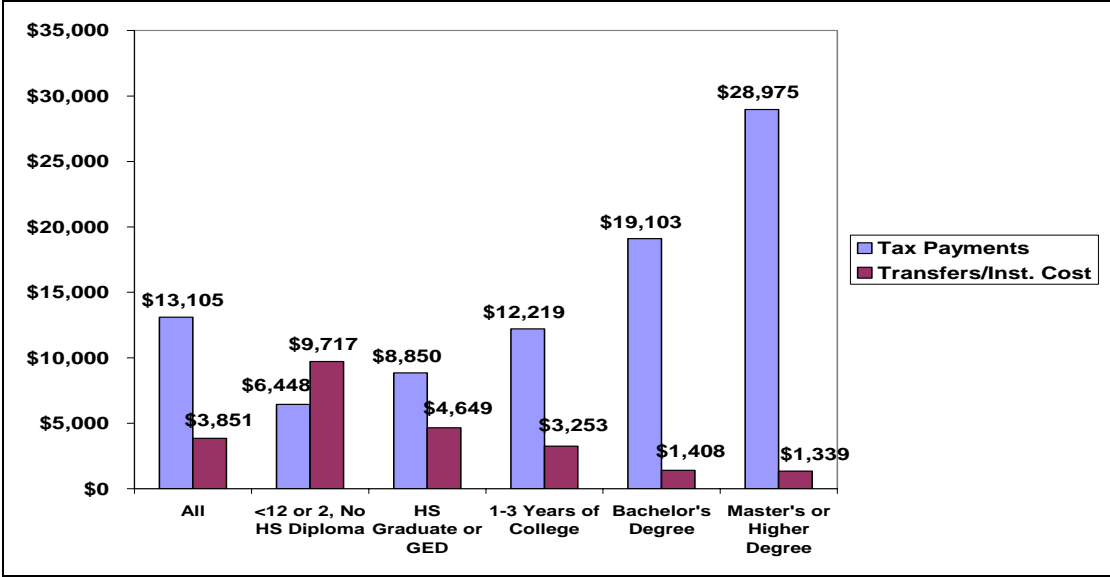
Source: 2006 American Community Surveys, tabulations by authors.

The Overall Fiscal Consequences of Dropping Out of High School for Michigan Adults

The educational attainment of Michigan adults is strongly linked to their net fiscal contributions to the federal, state, and local government. Among the fiscal benefits of increased schooling to society as a whole are the higher levels of taxes paid annually to federal, state, and local governments in the form of federal and state income taxes, Social Security payroll taxes, federal government retirement contributions, state sales taxes, and local property taxes. A second fiscal benefit to the rest of society consists of the reduced dependence of better educated and more literate adults on a wide array of both cash and in-kind transfers from national and state governments to support themselves and their families. The total mean, annual taxes (federal income, state income, Social Security payroll, federal government retirement, sales, and property taxes) paid by Michigan adults lacking a high school diploma in 2004-2005 were \$6,448 versus tax payments of \$8,850 by high school graduates, \$19,000 by those with a four-year college degree and nearly \$29,000 by those with a Master's or higher degree. (Chart 18). Thus, Michigan adults without a high school diploma paid only one-third of to one-fifth as much in taxes as their peers with a Bachelor's or higher degree.

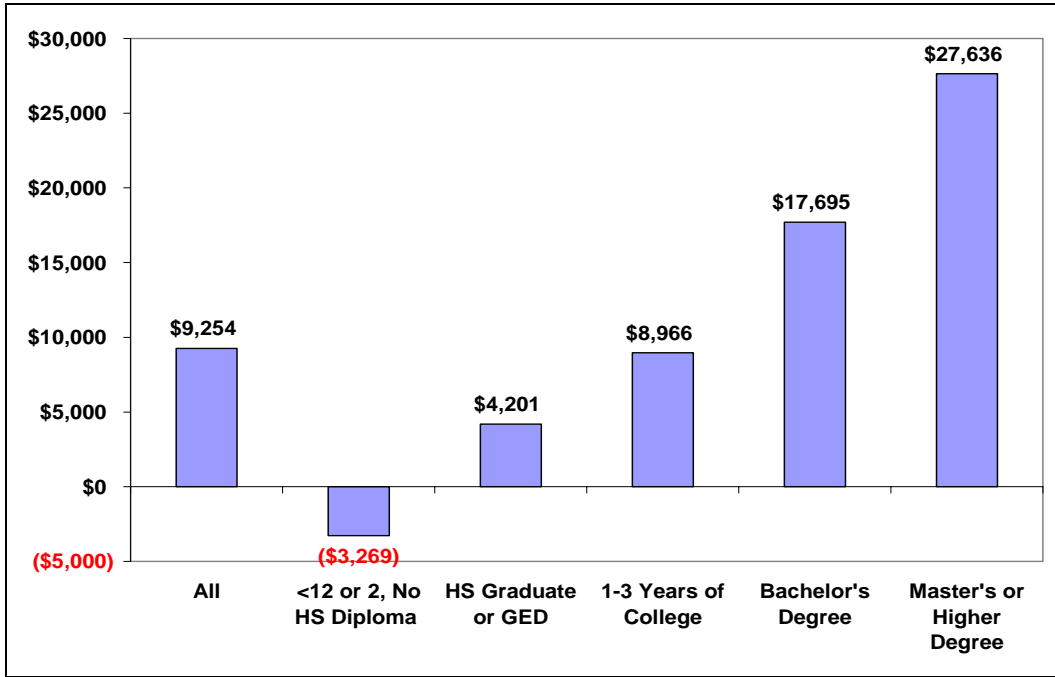
Less educated adults were much more likely than their peers with more years of formal schooling to be dependent on government-financed cash and in-kind transfer payments for their subsistence. Michigan adults lacking a high school diploma obtained an annual mean value of \$8,000 in cash and in-kind payments from the government while those with a Bachelor's or higher degree obtained only \$1,300. Michigan adults without a high school diploma, especially males, also imposed substantially higher mean annual incarceration costs.

Chart 18:
The Mean Annual Tax Payments and Cash/In-Kind Transfers/Institutionalization Costs of 16-64 Year Old Michigan
Adults by Educational Attainment, 2004-2005 Averages
(in Dollars)



The mean annual net fiscal contribution (taxes-transfers/institutionalization costs) of Michigan adults lacking a high school diploma was a negative \$3,269 during the 2004-2005 period. Clearly, those Michigan adults who failed to graduate from high school imposed substantial annual fiscal burdens on their fellow residents. Government services have to be financed from these net fiscal contributions. In contrast to these findings, the mean net fiscal contribution of high school diploma holders was a positive \$5,000, for those with a Bachelor’s degree it was \$17,700, and for those with a Master’s or higher degree it was nearly \$28,000 (Chart 19). Over their working lifetime, given continuity of the fiscal results that prevailed in 2004-2005, the average high school dropout in Michigan would produce a substantial net fiscal burden of \$160,000 while the average high school graduate with no post-secondary schooling would generate \$197,000 more in taxes than he/she would impose in transfer costs and institutionalization costs.

Chart 19:
The Mean Net Fiscal Contribution (Taxes-Transfers) of Michigan Adults (16-64) by Educational Attainment, 2004-2005 Averages



Conclusion

The evidence on the personal and social economic costs of dropping out of high school in Michigan provides an overwhelming case for immediate actions to reduce high school dropout rates among existing students and help recover more of those who have already dropped out of school. The evidence also shows that many of these costs associated with dropouts, especially among males, are increasing over time in both Michigan and the U.S. These higher lifetime costs include lower employment rates, fewer hours worked during the year, substantially lower annual and hourly earnings, lower marriage rates, higher rates of income inadequacy, and higher incarceration rates. The children raised in families headed by adult dropouts face a variety of cognitive, health, nutrition, and educational problems that will hinder their abilities to successfully transition into adulthood. The evidence in this case is quite clear, convincing, and compelling on all counts.

In civil trials in the U.S., the criterion that juries are expected to apply to their verdict is “a preponderance of evidence”. In criminal trials, guilt is supposed to be established “beyond a reasonable doubt”. In Michigan, the case for public policy actions to minimize the number of young adults who will drop out of high school has been found to be based on both a “preponderance of evidence” and established “beyond a reasonable doubt”. Case closed.