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ABSTRACT

A study examined the labor market problems of the United States' out-of-school youth population and trends in the development and attempted solution of those problems over the past 20 years. The study's major areas of focus were as follows: trends in the nation's out-of-school youth population's size and demographic composition; trends in the labor market experiences of out-of-school youth as a group over time and as they grow older; and the outcomes of youth employment and training programs, especially those targeted toward economically disadvantaged youths. The study confirmed that, despite the economic recovery from the 1990-91 recession, the real weekly earnings of most full-time employed young adults, especially young men, have continued to decline over the past 2 decades and that no fundamental reversal of the trend appears imminent. Few recent national evaluations of federal employment and training programs have shown sizable, statistically significant positive earnings impacts of those programs on out-of-school youth. The economic impacts that have been found have only been in the $600-$700 range, which would replace less than 10% of the real earnings losses experienced by young men since the 1970s. (Thirty tables/graphs and 36 endnotes are included.) (MN)

The Labor Market Problems of the Nation's Out-of-School Youth Population

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The Labor Market Problems of the Nation's Out-of-School Youth Population: The Case for A New Workforce Development Initiative

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Sar A. Levitan

The Sar Levitan Center for Social Policy Studies at the Johns Hopkins University was organized in 1995 to commemorate and extend the works of Sar A. Levitan, public policy commentator extraordinaire who died in May 1994 after 44 years of selfless public service on the national scene.

Levitan came to Washington in 1950 after military service and completion of his Ph.D.in Economics at Columbia University to serve on the staff of the Korean era Wage Stabilization Board. He remained thereafter with the Legislative Reference Service, researching and enlightening at congressional request issues related to labor relations, employment and economic development. On loan from LRS, he served on the staff of Senator Eugene McCarthy's 1959 Select Committee on Unemployment,in 1960-61 as Deputy Director of the Presidential Railroad Commission and then as advisor to Senator Paul Douglas in the formulation of the Area Redevelopment Act, the start of the Kennedy New Frontier.

Aware that pioneer social policies would need friendly critics to keep their administrators focussed, he obtained a grant from the Ford Foundation which the Foundation itself has described as the longest lasting and most productive in its history. For thirty years thereafter, he was to advocate, evaluate, criticize and praise (wherever and whenever deserved) every significant legislative act, policy and program related to employment, education, training or poverty during those tumultuous years.

Levitan was not satisfied with a 36 page bibliography of books, monographs, articles, congressional testimony and speeches. When cancer ended his life just short of his eightieth birthday, he left the bulk of his life savings to the National Council on Employment Policy, an organization he had helped organize and then singlehandedly perpetuated, charging his closest friends to continue his life's crusade.

The NCEP in turn funded the Sar Levitan Center for Social Policy Research which is the sponsor of this publication series.

Therefore to Sar A. Levitan this publication is lovingly dedicated.

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About the Authors: Andrew M. Sum is a Professor in the Economics Department of Northeastern University and the Director of the Center for Labor Market Studies. W. Neal Fogg is a research associate in the Center for Labor Market Studies. Their previous research publications on youth labor market issues include: "Young Workers, Young Families and Child Poverty" in Of Heart and Mind: Social Policy Essays in Honor of Sar A. Levitan (1996); From Dreams to Dust: The Changing Economic Fortunes of America's Non-College Educated Youth (1995); The Adolescent Poor and the Transition to Adulthood (1992); and The Changing Economic Fortunes of Young Black Men in the New American Economy (1989).

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Introduction

The labor market and social adjustment problems of many out-of-school youth, especially those lacking high school diplomas and the economically disadvantaged, continue to be quite severe, and in some respects they have actually intensified over the past decade. Declines in the real weekly wages and annual earnings of these young adults have continued unabated through 1995, and the incidence of many social pathologies (out-of-wedlock births, welfare dependency, criminal activities) remains at very high levels. The need for effective employment and training strategies for out-of-school young adults (both dropouts and high school graduates with no substantive post-secondary schooling) remains as important today as it did ten years ago; however, the past track record for many programs in this area remains weak, and political support for programs to address these problems has declined markedly in recent years at the national and state levels.

While Congress passed a watered down version of the School-to-Work Opportunities Act in 1994, dropouts and economically disadvantaged students will not receive many services under the Act, and the current Congress has been scaling back future financial support for these programs. At the same time, funding for JTPA programs for out-of-school youth has been curtailed substantially, and the fate of such programs under the workforce development legislation pending in the Congress remains highly uncertain. Recent evaluations of the effectiveness of employment and training programs for disadvantaged out-of-school youth, including the national JTPA out-of school youth programs and the demonstration Jobstart program, have shown limited impacts on the longer-term earnings of program assignees. We, thus, lack a comprehensive, solid base of rigorous, empirical evidence to support the case for new and/or

expanded employment and training programs for out-of-school youth. As we will illustrate below, the need for serving these youth remains quite strong today; however, generating political support for this target group, especially economically disadvantaged minority males, will prove to be a formidable challenge in today's political and economic environment. As the protagonist in Richard Bach's novel The Messiah noted, "There is no problem so big that it cannot be run away from".

This discussion paper will focus on the size, characteristics, and labor market problems of the nation's out-of-school youth population. The out-of-school youth population for purposes of analysis is defined as persons 17-21 years old who either left school without a high school diploma (or a GED credential) or completed only 12 years of schooling and are not currently enrolled in any formal educational program. The upper age limit of 21 is used to define this group, given the standard definition of "youth" in national employment and training legislation as those persons under 22 years of age. A new youth employment and training initiative may well wish to raise this upper age limit, given the continuation of severe earnings problems among many out-of-school adults in the 22-25 age range. The Job Corps program also has broadened age eligibility for its programs in recent years. The lower age limit of 17 seems desirable. Few youth drop out of school before age 17, nearly all non-enrolled high school graduates are 18 or older, and youth employment and training initiatives should not compete with existing regular and alternative high schools for enrollees.

This paper will focus primarily on the six following issues:

(i) How large is the nation's current out-of-school youth population and how has its size changed over the past

two decades (1973-95)? Given forthcoming demographic developments, how will the size of the youth cohort change over the remainder of this decade?

(ii) How has the composition of the out-of-school population changed over time? How many of the members of this target group are classified as "school dropouts" versus high school graduates, including GED holders? How have the gender and race-ethnic characteristics of this population group changed over time?

(iii) How large is the foreign immigrant component of the out-of-school population, especially among high school dropouts? What fraction of the out-of-school population are economically disadvantaged, welfare dependent, and parents, including absent fathers? What implications do these findings have for the targetting provisions and design features of future youth employment and training initiatives?

(iv) How have the labor market experiences of these out-of-school young adults changed over the past two decades, including their employment experiences, their annual earnings, and their real weekly earnings? Have trends in these labor market experiences varied by high school graduation status, gender, or race-ethnic group? Have the weekly earnings declines of young adults been stemmed in recent years as the national economy has grown and overall employment opportunities have improved?

(v) Do the labor market problems of young adults decline as they reach their mid to late 20's? Or, have young adults in the 22-29 age range also experienced difficulties in maintaining their real earnings position?

(vi) What have been the findings of youth employment and training program evaluations with respect to their ability to significantly raise the weekly and annual earnings of out-of-school youth, especially economically disadvantaged

youth? What are the main implications of these findings for the design and administration of new employment and training initiatives for out-of-school youth in the U.S.? Can the quality, intensity, and effectiveness of future program services be markedly improved?

Trends in the Youth and Out-of-School Populations

Our analysis of the out-of-school youth population will begin with an overview of general trends in the nation's youth population and the educational attainment and school enrollment status of these youth. The U.S. Census Bureau typically provides population estimates for selected age groups rather than for single age groups. Trends in the numbers of 18-19 and 20-21 year olds in the resident population of the U.S. between 1973 and 1993 are displayed in Table 1.[1] During the 1970s, the population of 18-21 year olds continued to grow as the tail end of the baby boom generation entered their young adult years. The total number of 18-21 year olds reached a peak at just under 17.4 million in 1980 (Table 1). Since then, there has been a steady and fairly steep decline in the nation's 18-21 year old population. By 1993, the estimated number of 18-21 year olds had declined to 14.1 million, a reduction of 3.23 million or nearly 19% since 1980.

Table 1:
Numbers of 18-21 Year Olds in the U.S. Population
(Numbers in 1000's)

Year	(A) 18-19	(B) 20-21	(C) Total 18-21
1973	8,044	7,658	15,702
1979	8,698	8,653	17,351
1980	8,718	8,669	17,387
1985	7,637	8,370	16,007
1989	7,898	7,651	15,549
1993	6,899	7,262	14,161
Absolute Change, 1980-93	-1,819	-1,407	-3,226
Percent Change, 1980-93	-20.9	-16.2	-18.6

Source: U.S. Department of Education, Education Statistics Digest, 1994.

The sharp drop in the number of young adults over the past 15 years provided a unique demographic window of opportunity to resolve youth labor market problems. During the late 1970s and early 1980s, there was frequent talk of an impending youth labor shortage and projections of a sharp drop in crime due to a smaller youth cohort. A substantially smaller cohort of young adults should have facilitated their absorption into the labor market and improved their relative and real wage position. Unfortunately, demographics were not destiny, and the real wages and earnings of most major subgroups of young adults have continued to deteriorate over the past 15 years. The demographic window of opportunity is now closing. The number of teenagers in the U.S. population has been rising in the past few years, and the U.S. Census Bureau has projected that the number of 16-24 year olds will rise from 32.5 million in 1994 to just under 37 million in the year 2005, a gain of 4.5 million or 14% over this eleven year period.[2] The young adult population will grow twice as fast

over the next decade as the nation's prime-aged population (25-54). The increased numbers of young adults may actually exceed those projected by the U.S. Census Bureau since foreign immigration may well rise by more than the middle level projections of the Census Bureau and, as will be noted below, a high fraction of new foreign immigrants are in their young adult years, including many of those lacking a high school diploma. Supply increases among young adults over the next decade will only exacerbate the labor market problems that they have been experiencing since the late 1970s.

The number of young school dropouts in the population will depend on both the absolute numbers of young adults as well as the share of young adults who fail to obtain a high school diploma before leaving school. In conducting the monthly CPS household survey, the U.S. Census Bureau today counts as high school graduates those persons who obtained a high school diploma or its equivalent, the GED certificate. Trends over the past two decades in the percent of the nation's 16-24 year old population who were no longer enrolled in school and who lacked a high school diploma or GED certificate are displayed in Table 2. Between 1973 and 1980, the overall incidence of school dropout problems among 16-24 year olds remained fairly constant at a little over 14 percent. During the 1980s, the overall incidence of dropout problems among young adults declined to 12.6 percent and fell further to 11 percent in 1993. Some portion of the more recent decline appears to be attributable to a change in the CPS collection procedures for educational attainment data. Respondents are now asked to report not only the highest grade completed, but also whether they possess a high school diploma or its equivalent. Unfortunately, the existing collection procedures do not allow separate identification of these two credentials.

Table 2:
Percent of High School Dropouts Among Persons
16-24 Years Old in the U.S., Total and by Race/Ethnic Status

Year	(A) All Races	(B) White, not Hispanic	(C) Black, not Hispanic	(D) Hispanic
1973	14.1	11.6	22.2	33.5
1980	14.1	11.4	19.1	35.2
1985	12.6	10.4	15.2	27.6
1989	12.6	9.4	13.9	33.0
1993	11.0	7.9	13.6	27.5

Source: U.S. Department of Education, Education Statistics Digest, 1994.

Note: Persons who obtained a GED certificate are counted as high school graduates in the CPS survey.

Over the past two decades, high school dropout rates have declined among Whites, Blacks, and Hispanics (Table 2). Still, there are important race-ethnic differences in these dropout rates, with White, non-Hispanics characterized by the lowest dropout rate (8%) followed by Blacks (14%) and Hispanics (28%). The high incidence of dropout problems among young Hispanics is critically influenced by the above average share of foreign immigrants among this population subgroup, many of whom have recently migrated to the United States after completing only a limited number of years of schooling in their home country, especially Mexico and Central America.

The estimated dropout rates in Table 2 might seem to call into question concerns among many educators and educational policymakers over the dropout problems in the nation's public high schools, especially in central cities and rural areas. The National Education Goals Panel established a goal for the nation that would increase the "high school graduation rate" to at least 90 percent by the year 2000.[3] Findings in Table 2 suggest that the nation had come pretty

close to achieving this objective in 1993 for all young adults and had already attained this goal for young White, non-Hispanics.

Yet, some unknown number of the high school graduates identified in the CPS survey did not obtain a regular high school diploma, but instead secured a GED credential or some alternative credential. The American Council on Education does provide annual data on the number and age distribution of the individuals obtaining a GED credential. We have tracked the number of persons 18-24 years old awarded a GED credential from 1989 through 1993 (Table 3). Over this five year period, the annual average number of young adults receiving a GED credential was 431,000, reaching a peak of 469,000 in 1993. If we multiply the annual average number of young GED recipients by seven to reflect the age range of our young adults, we estimate that 3.017 million young persons ages 18-24 will obtain the GED before they reach age 25. This total is equivalent to 11.8% of the total number of 18-24 year olds in the U.S. population in 1993. Thus, there were likely more GED holders among the nation's young adults in 1993 than there were high school dropouts. This implies that nearly 23 of every 100 18-24 year olds in the U.S. did not leave high school with a regular diploma. This "adjusted dropout rate" is quite substantial.

National research on the labor market effects of a GED certificate for young adults indicates that GED holders, especially men, not going on to complete some post-secondary schooling do not fare as well as regular high school graduates. Earnings of many young GED holders do not differ significantly from those of high school dropouts in the NLS surveys. Our own analysis of the findings of the National Adult Literacy Survey (NALS) suggests that among adults (ages 20-64) male GED holders earn

significantly more than dropouts but do not quite match the annual earnings of high school graduates with no post-secondary schooling. The mixed evidence on the economic benefits of a GED credential for young adults raises serious questions on the use of a GED education strategy for any future youth employment and training initiative. Earlier studies of the effects of a GED credential on the employment and earnings experiences of Job Corps terminees were fairly favorable.[4] It would seem desirable to review Job Start, JTPA Title II, and more recent Job Corps followup studies on the employment and earnings effects of the GED credential on program participants.

Table 3:
Number of 18-24 Year Olds Obtaining a GED Credential, 1989 to 1993
(Numbers in 1000's)

Year	Number
1989	357
1990	410
1991	462
1992	457
1993	469
Average, Above Five Years	431
Cumulative Number over 7 Years	3,017
Number of 18-24 Year Olds, 1993	25,658

Trends in the Number of Young School Dropouts and Non-Enrolled Graduates in the U.S.

The number of young school dropouts in the U.S. at any point in time will be influenced by the overall size of the youth population (18-21 year olds) and the school dropout rate for this age cohort. Our previous analysis of trends in the overall size of the youth population revealed a decline of

close to 20 percent over the past 15 years, and the incidence of dropout problems (narrowly defined) also declined by somewhat more than 20% over the same time period. As a consequence, the aggregate number of 18-21 year olds lacking either a high school diploma or a GED certificate declined from 2.45 million in 1980 to 1.56 million in 1993, a drop of 895,000 or 36% (Table 4). These findings indicate a substantial drop in the pool of young high school dropouts throughout the nation over the past 15 years, and, as will be noted below, their composition has also changed in a number of important respects that makes it somewhat harder to recruit and retain young dropouts in employment and training programs.

Table 4:
Estimated Change in the Number of 18-21 Year Olds Who Were School Dropouts, U.S. Selected Years, 1973-93
(Numbers in 1000's)

Year	Number of Dropouts
1973	2,214
1980	2,452
1985	2,017
1989	1,866
1993	1,557
Absolute Change, 1980-1993	-895
Percent Change, 1980-1993	-36.5

Many JTPA sites and Jobstart sites had experienced difficulties in recruiting economically disadvantaged youth for participation in local programs, and many Job Corps centers also have encountered problems in recruiting younger dropouts. The task of recruiting and retaining young adults, both dropouts and graduates, in future youth employment and training initiatives needs to be given serious consideration. Our own experiences in designing

and evaluating employment and training programs for young inner city minority males in Boston indicate that recruitment and retention problems are complicated by the following factors:[5]

- Involvement with the criminal justice system including the need for participants to conform to conditions of probation and parole
- Homelessness and lack of permanent housing arrangements among some participants
- Alcohol and drug abuse problems
- Drug sales activities that compete with legitimate employment
- Health problems that limit the intensity of their involvement in education and training activities
- Very limited reading proficiencies that reduce their access to skilled job training and post-secondary education programs
- Fathering and child support responsibilities that limit their ability to attend education and training programs during daytime hours

Our following analysis of the labor market experiences of out-of-school young adults is confined to 17-21 year olds who either (a) had left high school without a diploma and failed to obtain a GED certificate or (b) had graduated from high school or obtained a GED certificate but had not completed any years of post-secondary schooling and were not enrolled in a post-secondary educational program at the time of the survey. Given this basic definition of out-of-school youth, we have generated estimates of the number of young school dropouts and non-enrolled high school graduates in the nation during selected years over the 1974-95 period (Table 5).

The number of "young school dropouts" ages 17-21 has declined considerably since 1980, falling from 3.84 million to 2.17 million or by nearly 44% over the past 15 years.[6] The absolute number of non-enrolled high school graduates (including GED holders) has dropped even more sharply since 1980. The declining number of new high school graduates was due to a smaller youth cohort and a continuous increase in the fraction of new high school graduates enrolling in a two or four year college or university upon graduation. Since 1980, the fraction of new high school graduates enrolling in a two or four-year college or university has increased from 50% to 63% according to the findings of the October CPS surveys on the school enrollment status of new high school graduates.[7] As a consequence of these two developments, the number of young high school graduates not enrolled in school declined by more than half between 1980 and 1995 (Table 5). These demographic developments have come to an end for the time being. The number of 18-21 year olds will now be rising over the next decade, and it appears that the college enrollment rate has peaked in the past few years. The demographic window of opportunity has now closed, and, as will be noted below, the nation failed to take advantage of the favorable demographic climate to improve employment and earnings prospects for young adults with no post-secondary schooling.

Table 5:
Trends in the Number of 17-21 Year Old High School Dropouts and Non-Enrolled High School Graduates in the U.S., Selected Years March 1974 to March 1995

March of Year	(A) High School Dropouts	(B) High School Graduates
1974	3,548	5,707
1980	3,838	6,046
1990	2,926	4,597
1995	2,166	3,229
Absolute Change, 1980-95	-1,672	-2,817
Percent Change, 1980-95	-43.6%	-53.4%

The Changing Demographic Composition of Young School Dropouts and Non-Enrolled Graduates

While the numbers of young school dropouts and non-enrolled graduates have declined sharply over the past 15 years, their demographic and socioeconomic characteristics also have changed in a number of key respects. Among both dropouts and non-enrolled graduates, males have increased their share of the youth population. In 1974, young males accounted for only 47% of school dropouts and 44% of non-enrolled high school graduates. By 1995, males represented a slight majority of both groups (Table 6). Young women have reduced their school dropout rates more considerably than men, and college attendance rates have risen more rapidly among women than men since 1980. Recent female high school graduates were more likely than men to attend college in the fall immediately following graduation from high school.

Table 6:
Trends in the Gender and Race-Ethnic Composition of 17-21 Year Old High School Dropouts and Non-Enrolled High School Graduates
(Numbers in Percent)

	(A) High School Dropouts		(B) High School Graduates	
Gender or Race/Ethnic Characteristics	(1) 1974	(2) 1995	(1) 1974	(2) 1994
Gender				
Men	47.5	52.6	43.8	51.7
Women	52.5	47.4	56.2	48.3
Race/Ethnic				
Black, not Hispanic	17.3	17.9	10.8	15.6
Hispanic	11.2	33.3	4.4	13.2
White, not Hispanic	70.5	46.7	83.8	69.5
Other, not Hispanic	1.1	2.1	1.0	1.7

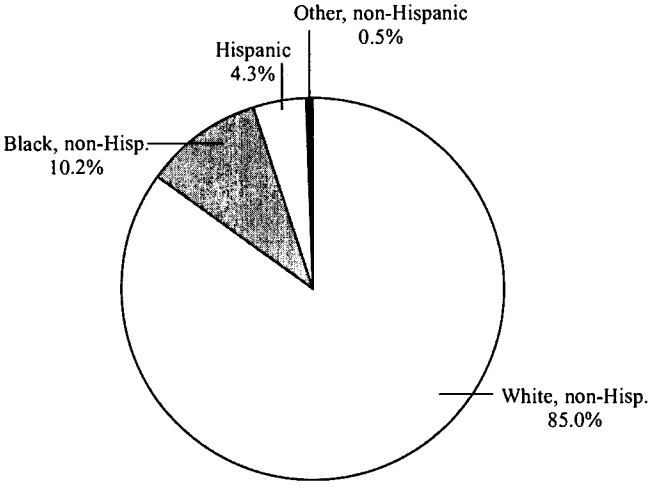
The race/ethnic composition of the nation's young high school dropouts and graduates also has changed in a number of important respects, particularly among school dropouts. In 1974, a substantial majority (70%) of the nation's young dropouts were White, non-Hispanics. Black dropouts (17%) comprised the second largest group followed by Hispanics (11%). In March 1995, fewer than half of the nation's young dropouts were White, non-Hispanics. Hispanic youth (33%) constituted the second largest group, nearly double the size of the Black dropout population. Substantial growth in the nation's Hispanic immigrant population over the past 15 years influenced this particular outcome, with many of the Hispanic dropouts having migrated to the U.S. in recent years. The share of

young dropouts accounted for by immigrants from all nations will be described more fully in a following section.

Among young high school graduates, there also has been a shift in the race-ethnic composition though not nearly as dramatic as that for high school dropouts. White, non-Hispanics continue to comprise a substantial majority of young high school graduates not enrolled in college (70%), but their share has declined from 84% in 1974. Hispanics account for a growing share of the nation's non-enrolled high school graduates (13% in 1995), but their share is below that of Blacks (16%).

The changing race-ethnic mix of male school dropouts and graduates is portrayed in a series of pie charts on the following two pages. During 1974, Hispanic males accounted for only 10% of all young male dropouts in the nation; however, by 1995, they represented nearly 35% of all young male dropouts. Among non-enrolled male high school graduates, White, non-Hispanics continued to represent a substantial majority (70%) of the population. Despite their growing share of the nation's dropout population, relatively little is known about the effects of youth employment and training programs on the employability and earnings of Hispanic youth. The national JTPA impact study for youth did not provide estimates of impacts for race-ethnic groups. The recent OIG study of Job Corps programs provided selected outcome data for terminees by race-ethnic group; however, the Hispanic sample was fairly small, representing only 8% of the national sample. Are Hispanics under-represented in JTPA and Job Corps programs? How can future youth employment and training initiatives do a better job in recruiting young out-of-school Hispanics, who have been contributing in a substantial way to the problems of poverty in the U.S.? What are the major barriers to recruiting and

Race/Ethnic Composition of the 17-21 Year Old Male High School Graduate Population, 1974 and 1995



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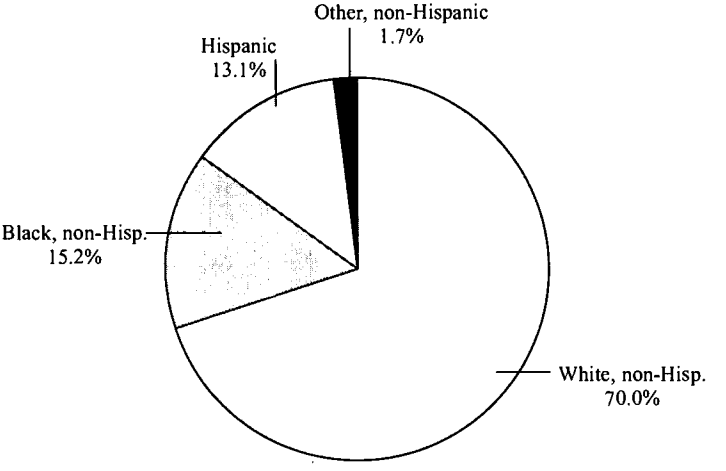

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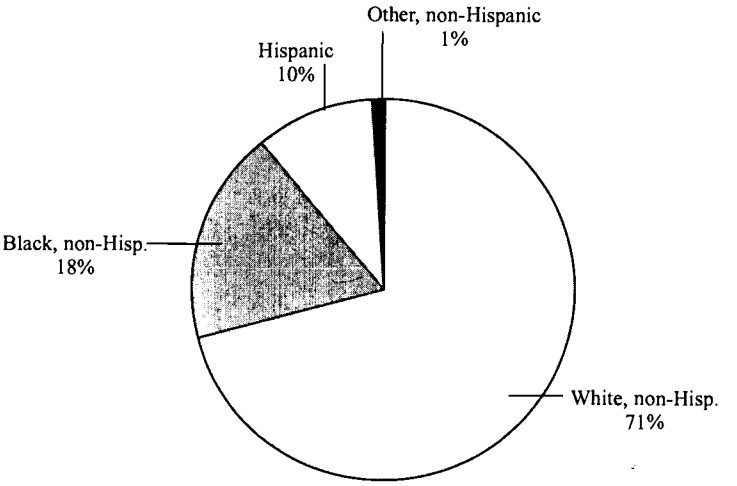
Race/Ethnic Composition of the 17-21 Year Old Male High School Dropout Population, 1974 and 1995



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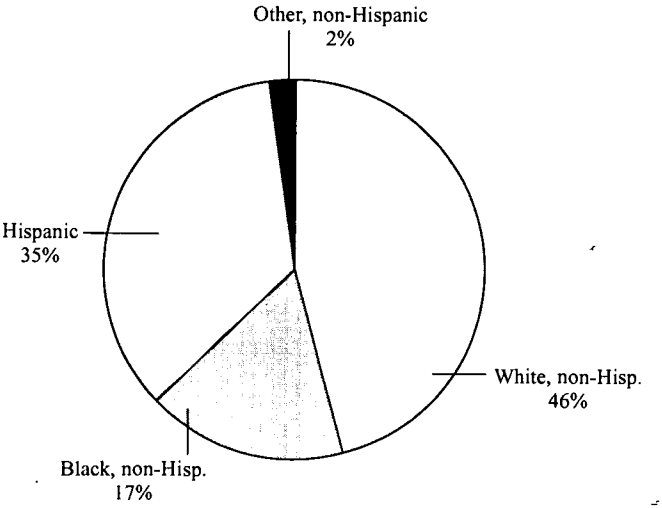


1995

retaining Hispanic youth in employment and training programs?

The Immigrant, Family Income, Public Assistance, and Parenting Backgrounds of Young Dropouts and High School Graduates

Recruitment and targetting strategies for at-risk, out of school youth must take into consideration particular characteristics of these youth that will complicate the task of recruiting and retaining them in programs and require close ties with other agencies serving these youth. We have examined several different data sets on young adults to identify their nativity status, their poverty status, their household living arrangements, their parenting status, their public assistance status, and their criminal justice system status (in jail or prison, on probation, on parole). Key findings on the recent characteristics of out-of-school youth are summarized in Table 7. The data appearing in this table are based upon the March 1995 CPS household survey, including the work experience and income supplement.

Immigrants comprised a relatively high fraction of the nation's young, out-of-school population in March 1995, especially among high school dropouts. Approximately 26% of male school dropouts and 22% of female dropouts were foreign immigrants, and 15% of both male and female school dropouts had entered the U.S. in the past five years. Many of these young dropouts are highly deficient in both English-speaking abilities and literacy proficiencies in their own language. Findings of the recent National Adult Literacy Survey conducted by the Educational Testing Survey for the U.S. Department of Education revealed that immigrants (16-64) who had arrived in the U.S. in the past ten years had mean literacy and quantitative proficiencies

Table 7: Selected Characteristics of 17-21 Year Olds Not Enrolled in School, by Graduation Status and Gender, March 1995 (Numbers in Percent)

	(A) Male H.S. Dropouts	(B) Male H.S. Graduates	(C) Female H.S. Dropouts	(D) Female H.S. Graduates
Nativity Status:				
Born in U.S.	74.3%	90.7%	78.3%	89.1%
Foreign Born, Total	25.7%	9.3%	21.7%	10.9%
Foreign Born, in U.S. Since 1990	15.3%	4.0%	14.6%	3.5%
Foreign Born, in U.S. Before 1990	10.4%	5.3%	7.1%	7.4%
Poor/Near Poor Status (Based on Primary Family Income):				
Poor or Near-Poor	40.3%	18.0%	61.9%	33.5%
Not Poor or Near-Poor	59.7%	82.0%	38.1%	66.5%
Poor/Near Poor Status (Based on Primary/Sub-Family Income):				
Poor or Near-Poor	42.3%	18.8%	68.5%	39.9%
Not Poor or Near-Poor	57.7%	81.2%	31.5%	60.1%
Relationship to Householder:				
Primary Family Householder	7.9%	9.2%	18.6%	13.0%
Subfamily Householder	1.2%	0.9%	15.7%	12.7%
Spouse of Householder	3.3%	2.5%	16.5%	14.7%
Other Relative of Householder	69.9%	69.9%	32.9%	43.5%
Unrelated Individual	17.8%	17.5%	16.3%	16.2%
Presence of Own Children:				
One or More Own Children	6.7%	6.1%	43.9%	29.6%
No Own Children	93.3%	93.9%	56.1%	70.4%
SSI/Public Assistance Income (from Person Record):				
Did Not Receive Income	94.9%	98.2%	75.4%	88.9%
Received Income	5.1%	1.8%	24.6%	11.1%

that were more than one standard deviation below the mean for U.S. citizens. Many recent immigrants, especially those lacking post-secondary schooling, fall into the bottom 10 to 15 percent of the literacy distribution.

The high share of immigrants in the young dropout population will require a comprehensive array of services to be provided to this group, including ESL training, basic academic skills training, and citizenship training. All legal immigrants should have an opportunity to participate in youth employment and training programs, but they should be required to participate in citizenship training to prepare themselves for becoming U.S. citizens. Literacy training also should be a required component for all immigrants with deficient reading and math skills. Our recent research on the earnings experiences of male immigrants indicates that the private economic returns to higher literacy proficiencies for immigrants become identical to those for native born Americans as their stay in the U.S. comes close to ten years.[8]

The share of immigrants in the young out-of-school population can be expected to vary considerably by region and among states within many regions. The Middle Atlantic, New England, Southwest, and Pacific regions have the highest shares of immigrants, and within these regions New York, Massachusetts, Texas, and California have above average shares of immigrants in their states, with particularly high concentrations in central cities and lower income suburban communities.

Many previous and current employment and training programs for out-of-school youth, including CETA, JTPA, Jobstart, and Job Corps, were designed to serve economically disadvantaged youth rather than youth in general. To determine the incidence of income inadequacy problems among the nation's current out-of-school youth

population, we identified all youth who were members of poor or near poor families; i.e., with family incomes below 125% of the poverty line for a family of their given size and composition.[9] Young high school dropouts are considerably more likely to be poor or near poor than their counterparts with a high school diploma or GED. Among males, 40% of school dropouts in 1995 would have been classified as economically disadvantaged versus only 18% of male high school graduates or GED holders. Young women are more likely than young men to be classified as economically disadvantaged; however, there are sizable differences in poverty and near poverty rates between female school dropouts and graduates. Approximately 62% of all female school dropouts were poor or near poor in March 1995 versus 34% of young female graduates. Many of these young female dropouts are mothers, and high fractions of these young single mothers still reside at home with their parents. The poverty status of these young single parent families who live with relatives is based on the combined money income of all family members not simply on the income of the related subfamily.[10] If the poverty or near poverty status of young subfamilies were based solely on their own incomes, then nearly 70% of female dropouts would have been classified as economically disadvantaged as would 40% of young female graduates.

The household living arrangements of these young out-of-school adults also must be considered in the design of new programs. Do these young people have stable family living arrangements that will accommodate them while they undergo lengthier education and training treatments or are they dependent on a steady flow of earnings to pay for the rents of their apartments or to support the primary family unit in which they reside? Young male dropouts, especially those living on their own, often have very precarious living arrangements that complicate the task of their actively

participating in programs. Again, our experience in monitoring and evaluating programs for young out-of-school males in Boston revealed that a number of these youth had highly unstable living arrangements, with shared rental units often being lost because of rental arrears and movement into homeless shelters occurring in response. These housing problems impose serious constraints on active and sustained program participation.

A substantial majority (70%) of young out-of-school males live at home with their parents. Over the past 20 years, the trend has been steadily upward, reflecting a steep deterioration in their real earnings capacity and their ability to form independent households. Another 18% of these young men live on their own or with others to whom they are not related. Only 12% of young men head their own families or are the husbands of women who claim to be the family head.

Fewer young women remain living at home with their parents or other relatives. Only one-half of female dropouts, including the heads of related subfamilies, remained at home with their parents as did 56% of young female graduates. Approximately 50% of the young female dropouts were either the head of their own family/subfamily or were married and living with their spouses. A high fraction of these latter women had one or more own children living with them at the time of the March CPS survey. Four of every nine female dropouts were mothers as were 30% of young high school graduates. The child care needs and parenting skills of these young mothers must be taken into consideration in the design of future youth employment and training programs as well as the fact that a high fraction of these young mothers are receiving financial assistance under the AFDC program. In March 1995,

approximately one-fourth of all female dropouts and 60% of those who were mothers were receiving AFDC benefits.

Previous innovative and comprehensive programs to meet the education, training, and employability needs of these young mothers, including Project Redirection and New Chance, failed to significantly raise their employability and earnings. The employment and training community must again be quite humble about our past accomplishments in effectively serving the needs of many young single mothers. While we may possess a fairly detailed understanding of their barriers to employment and their supportive service needs, we have not yet demonstrated that we know how to combine and deliver these services in an efficient manner. We need much more careful testing of new program approaches to meet the needs of this potential target group. Impending welfare reforms, especially time limits for benefits, may intensify the need for finding effective solutions to the labor market problems of this group.

Only a small fraction (6 to 7 percent) of young out-of-school males report to be living with a child of theirs. These relatively low rates clearly understate the share of young out-of-school males who have fathered a child since they exclude absent fathers. Current data on the number of young men (17-21) who are absent fathers are more difficult to come by. The National Longitudinal Survey of Youth (NLSY) did collect data on the fathering behavior of young men from the years 1982 onward. At the time of the 1982 NLSY survey, approximately 5% of all 17-24 year old men claimed that they had fathered one or more children who were not living with them. The incidence of absent fathers ranged from nearly 9% for school dropouts, to 5% for high school graduates, to less than 1% for young men with four year college degrees. It is, thus, quite likely that 15-16

percent of young male dropouts in 1995 were fathers (including absent fathers), and the rates are even higher among Black and Hispanic males with limited formal schooling.

Young fathers, including absent fathers, have pressing earnings needs that reduce their ability to participate in day-time training and education programs. Our experience with programs for disadvantaged out-of-school males has been that part-time and flexible schooling and training including evening hours programs need to be combined with employment to motivate these young men to participate. The daytime hours of more motivated and ambitious young men have high opportunity costs; thus, programs need to be quite flexible to address their needs. This required flexibility should not come at too high a social cost. Many education and training programs, especially GED, ABE, and basic academic skills, have unused capacity; thus, the true marginal cost of serving youth at different times of the day is typically quite low. The economic pressures on young absent fathers is likely to intensify in future years as child support enforcement efforts became strengthened in response to current and impending welfare reforms at the national and state levels.

There is one additional set of characteristics of young out-of-school males that needs to be taken into careful consideration in the planning and design of new youth employment and training initiatives. That set involves the relationships of young out-of-school males with the nation's criminal justice system; i.e., their incarceration in jails or prisons or their being on parole or probation for past offenses. Between 1980 and 1993, the total number of adults in jails, prisons, on probation, or on parole (on a given day) rose from 1.84 million to nearly 4.9 million, a rise of 165%.[11] The overwhelming majority (87%) of these

adults involved with the criminal justice system were males, and a high fraction of these males were in their young adult years. Research staff from the Sentencing Project have estimated that 2.574 million 20-29 year olds were under criminal justice control (in jail or prison, on probation, on parole) on a given date in 1994.[12] This age group would have represented 53% of all of the nation's adults under criminal justice control in 1993.

The fraction of young adults (20-29) under criminal justice control in 1994 varied considerably by gender and race-ethnic group. Young males in each race-ethnic group were five to six times as likely as their female counterparts to be under some type of criminal justice control. Among young men, the percent under criminal justice control in 1994 ranged from 6.7% for Whites to 12.3% for Hispanics to 30% for Blacks. The time trends in these control rates were upward for each gender and race-ethnic group over the 1989-94 period. As distressing as these numbers are, they actually underestimate the numbers of young adults involved with the criminal justice system during a given year since they are point-in-time (one day counts) rather than flow estimates.

The Sentencing Project did not attempt to break out estimates of criminal justice control rates for young adults by years of schooling completed. Previous research by the authors on the self-reported criminal activities and convictions of young adult men from the NLSY surveys revealed substantial variability in such criminal activities by years of schooling.[13] For example, among all 18-23 year old males in 1980, one-third of all high school dropouts reported that they had been charged with a crime at some time in their past. This prior arrest rate of dropouts was twice as high as that of non-enrolled high school graduates and five times as high as that of college students.

Conviction rates were also considerably higher among young high school dropouts. Thirteen percent of young male dropouts reported that they had been convicted of a crime in the past three years versus only 6% of high school graduates and 1% of college students. The gaps among these three groups are considerably wider when the likelihood of being sent to a correctional institution is considered. Dropouts were six times more likely than high school graduates to have been sent to a correctional institute and 100 times more likely to have been sentenced than college students.

Programs serving young out-of-school males, especially dropouts and poverty area youth, must be prepared to deal with the criminal justice problems of participants. Many youth will have prior arrest records and convictions, and a high share will be on probation or parole. Programs must be able to work closely with the probation and parole systems that are monitoring their behavior and work actively with such staff to prevent participants from violating the terms and conditions of their parole. Again, our experiences with Boston programs for inner city, out-of-school youth have revealed the importance of addressing these problems, including mentoring and legal assistance to youth participants, to keep them from being sent back to jail or prison for parole violations. Arrests for drug possession can lead to ex-offenders being sent back to jail for parole violations.

The provision of intensive education and employment services to youth at-risk of criminal activities and to ex-offenders can be successful. The late 1970s impact evaluation of Job Corps yielded evidence of significant reductions in criminal activities by Job Corps members, and the Jobstart evaluation found that males with prior arrest records were obtaining significantly higher annual earnings

than control group members three to four years after program enrollment.

Trends in the Employment and Earnings Experiences of Out-of-School Youth

The rationale for a renewed national commitment to serving the employment and training needs of out-of-school youth should include a fairly substantive assessment of their experiences in the labor market over time. How well or how badly have members of the 17-21 year old out-of-school population fared in the labor market over the past two decades? We have selected five key employment and earnings variables to represent the labor market experiences of out-of-school youth. These five variables are the following:

- The fraction of out-of-school youth able to obtain some employment during the calendar year
- Mean weeks of paid employment among those who worked
- Mean annual hours of employment among those who worked
- The real annual earnings of all youth and of employed youth
- The real weekly earnings of out-of-school youth employed full-time

The out-of-school youth population was initially divided into four subgroups: male dropouts, male graduates, female dropouts, and female graduates. For most of our measures, we also provide estimates for key race-ethnic subgroups. Findings for four selected years over the 1973-1994 period are displayed in Tables 8 through 12. The employment and earnings experiences of young adults are very cyclically sensitive, improving at

above average rates as the national economy grows and deteriorating at above average rates when the economy enters a recession. To provide an analysis of the employment and earnings experiences of out-of-school youth at comparable stages in the national business cycle, we selected the years 1973, 1979, and 1989 since they represented peak years of the business cycle. While 1994 is not the peak year of the current cycle, it does represent the fourth year of recovery from the 1990-91 recession, and the aggregate unemployment rate in 1994 was 6.1%, only .8 and .3 percentage points higher than the annual average unemployment rates of 1989 and 1979, respectively.

Our first measure of the labor market experiences of out-of-school youth represents the share of such youth who were able to obtain employment at some time during the calendar year. These estimates in Table 8 are based on the March CPS work experience surveys which collect information from persons 15 and older in a nationally representative sample of households. For each of the four years covered by our survey, young high school graduates were more likely than high school dropouts to obtain employment at some time during the year, and the gaps between these two groups have widened over time. For example, during 1994, 93% of young male graduates obtained some paid employment while only 72% of young male dropouts succeeded in doing so, a 19 percentage point gap. In 1973, the gap between the employment rates of these two groups was only 6 percentage points. Female graduates enjoyed an even more substantial employment advantage (30 percentage points) over dropouts in 1994.

Out-of-school youth in each of our four gender and schooling groups experienced declines in their employment rates between 1973 and 1994. The absolute sizes of these employment declines were greater among both male and

Table 8: Percent of 17-21 Year Olds Not Enrolled in School Who Were Employed One or More Weeks During the Year, by Graduation Status, Gender, and Race/Ethnic Origin, Selected Years, 1973-1994

	(A) 1973	(B) 1979	(C) 1989	(D) 1994	(E) Absolute Change, 1973-94
Male H.S. Dropouts					
Total	87.8%	83.1%	80.8%	72.6%	-15.2
White, non-Hispanic	89.1%	87.0%	85.5%	82.5%	-6.6
Black, non-Hispanic	82.9%	63.3%	63.2%	46.8%	-36.1
Hispanic	86.4%	85.3%	81.8%	73.6%	-12.8
Male H.S. Graduates					
Total	94.4%	94.8%	92.9%	91.1%	-3.3
White, non-Hispanic	95.2%	96.6%	95.4%	93.6%	-1.6
Black, non-Hispanic	89.7%	82.0%	85.2%	82.9%	-6.8
Hispanic	90.6%	91.1%	90.3%	86.8%	-3.8
Female H.S. Dropouts					
Total	58.9%	60.3%	58.6%	49.0%	-9.9
White, non-Hispanic	63.5%	67.3%	68.9%	64.6%	1.0
Black, non-Hispanic	45.3%	39.3%	43.4%	33.8%	-11.5
Hispanic	50.9%	51.9%	42.1%	34.1%	-16.8
Female H.S. Graduates					
Total	82.9%	84.8%	85.6%	78.6%	-4.4
White, non-Hispanic	85.6%	88.2%	89.5%	84.6%	-1.0
Black, non-Hispanic	67.8%	65.2%	70.0%	71.3%	3.5
Hispanic	75.8%	75.9%	80.9%	59.0%	-16.8

female dropouts than among high school graduates.[14] Within the dropout population, Blacks and Hispanics suffered larger declines than Whites in their employment rates between 1973 and 1994. During the latter year, only one-third of Black and Hispanic female dropouts were able to obtain any employment during the year. Many of the young women in these two groups were mothers and were relying on AFDC benefits to support themselves and their families. This group is at substantial risk of both long-term poverty and welfare dependency.

Many out-of-school youth with some paid employment experience work only part-year, and a relatively high fraction work only part-time; i.e., less than 35 hours per week. Again, both male and female graduates fared better than their counterparts lacking a diploma or a GED credential. During 1994, employed young male graduates worked eight more weeks than dropouts (40 versus 32), and female graduates worked seven more weeks than school dropouts (36 versus 29). The average employed female dropout worked only half-year during 1994. By combining this result with our previous finding that only one-half of all young female dropouts worked at any time during 1994, we can see that the average young female dropout worked only one-fourth of the total weeks available for employment in that year.

Trends in mean weeks worked between 1979 and 1994 were moderately downward for three of our four gender/schooling subgroups.[15] The only exception was female school dropouts who increased their mean weeks worked by 1.6 weeks or 6% between 1979 and 1994. Among male dropouts, Blacks were characterized by the largest decline in mean weeks worked over this period. During 1994, the average employed Black male dropout worked only 21 weeks, or 40% of the maximum number of

Table 9: Mean Weeks Worked by Employed 17-21 Year Olds Not Enrolled in School, by Graduation Status, Gender and Race/Ethnic Origin, Selected Years, 1979-1994

	(A) 1979	(B) 1989	(C) 1994	(D) Percent Change, 1979-94
Male H.S. Dropouts				
Total	33.8	35.6	32.6	-3.6%
White, non-Hispanic	34.2	35.3	31.5	-7.8%
Black, non-Hispanic	27.8	31.6	20.9	-24.7%
Hispanic	35.9	38.4	37.7	4.8%
Male H.S. Graduates				
Total	41.2	40.9	40.5	-1.7%
White, non-Hispanic	41.7	41.7	41.6	0.0%
Black, non-Hispanic	38.1	36.6	35.3	-7.4%
Hispanic	38.6	41.4	40.5	4.8%
Female H.S. Dropouts				
Total	27.6	29.5	29.2	5.8%
White, non-Hispanic	27.9	30.1	29.2	4.6%
Black, non-Hispanic	25.0	26.4	24.2	-3.2%
Hispanic	28.8	29.5	32.4	12.5%
Female H.S. Graduates				
Total	38.2	39.7	36.1	-5.5%
White, non-Hispanic	38.7	41.0	37.3	-3.8%
Black, non-Hispanic	33.6	34.5	28.7	-14.7%
Hispanic	38.1	35.7	37.2	-2.3%

weeks available. The findings for 1994 also reveal, however, that there is considerable room for future youth employment and training programs to bolster the employability and earnings of dropouts in each gender and race-ethnic group. Year-round employment is clearly the exception rather than the norm for young dropouts in each subgroup.

The work experience data provide information on average hours of work per week as well as total paid weeks of employment. We have combined these two sets of data to generate estimates of annual hours of work among employed out-of-school youth during 1979, 1989, and 1994 (Table 10). Many of these youth only worked part-time due in part to difficulties in securing full-time work. For example, during March 1994, approximately 73% of male out-of-school youth were working on a full-time basis (35 or more hours per week) while only 60% of employed women were holding full-time jobs. During 1994, both male and female employed high school graduates worked more hours per year than each of their respective dropout counterparts. Employed male graduates worked 300, or 25%, more hours than male dropouts while employed female graduates worked 220, or 22%, more hours than employed dropouts.

Mean annual hours of work among all employed young male dropouts during 1994 were only 1,225, and Black male dropouts worked only 640 hours during the year. Employed Black male graduates worked twice as many hours as dropouts did during 1994, but even among graduates, mean annual hours worked were only 1,230, nearly 25% below those of comparable White, non-Hispanics. Young Black men who stay in high school long enough to obtain a diploma or a GED credential obtain considerably better employment records than dropouts, but

Table 10: Mean Annual Hours Worked by Employed 17-21 Year Olds Not Enrolled in School, by Graduation Status, Gender and Race/Ethnic Origin, Selected Years, 1979-1994

	(A) 1979	(B) 1989	(C) 1994	(D) Percent Change, 1979-94
Male H.S. Dropouts				
Total	1,271	1,228	1,225	-3.6%
White, non-Hispanic	1,285	1,195	1,189	-7.5%
Black, non-Hispanic	1,042	933	640	-38.6%
Hispanic	1,387	1,470	1,445	4.1%
Male H.S. Graduates				
Total	1,646	1,546	1,532	-6.9%
White, non-Hispanic	1,678	1,576	1,589	-5.3%
Black, non-Hispanic	1,444	1,334	1,230	-14.8%
Hispanic	1,499	1,608	1,577	5.2%
Female H.S. Dropouts				
Total	867	881	1,006	16.0%
White, non-Hispanic	854	864	982	15.0%
Black, non-Hispanic	817	883	808	-1.1%
Hispanic	1,028	971	1,206	17.4%
Female H.S. Graduates				
Total	1,366	1,370	1,228	-10.1%
White, non-Hispanic	1,382	1,418	1,276	-7.7%
Black, non-Hispanic	1,212	1,160	874	-27.9%
Hispanic	1,398	1,257	1,323	-5.4%

part of these advantages are likely due to higher basic academic proficiencies and more economically advantaged family backgrounds.[16]

Nevertheless, strategies to improve high school graduation rates among Black men appear to be justified on the basis of recent labor market experiences. Many young Black male graduates continue, however, to face severe labor market adjustment problems in the early school leaving years; thus, their needs must be addressed by future youth programs. With the possible exception of White and Hispanic male graduates, there is substantial room to improve the future annual earnings of out-of-school youth by increasing their weeks and hours of employment during the year. For the other two groups, future employment and training strategies must give priority to efforts to raise the hourly earnings of participants in the post-program period. All of these groups have faced declining real wages over the past two decades.

Trends in the Real Annual Earnings of Out-of-School Youth

The annual earnings of out-of-school youth might well be considered the most desirable measure of their success in the labor market since one's earnings during the year are influenced by the degree of attachment to the labor force, mean weeks and hours of employment, and hourly wages. To assess trends in the real (inflation-adjusted) annual earnings of young adults, we analyzed the CPS work experience data for 1973, 1979, 1989, and 1994. The nominal earnings data for each year were converted into constant 1994 dollars via use of the CPI-UX1 index. Use of this latter price index provides a more conservative measure of the rate of inflation between 1973 and 1982 when the

Bureau of Labor Statistics adopted the new methodology for estimating trends in the CPI-U index.[17]

Our findings on the mean annual earnings of young adults are presented for all out-of-school youth regardless of their employment status during the year (Table 11) and only for those with some paid employment experience during the year (Table 12). During 1994, both male and female graduates substantially outearned their dropout counterparts. (See also accompanying bar charts). Mean annual earnings of male high school graduates were twice as high as those of male dropouts ($10,200 versus $5000), and female graduates obtained mean earnings nearly three times as high as those of dropouts ($6,000 versus $2,300). Mean 1994 annual earnings for nearly all subgroups, however, were quite low, with only White male graduates obtaining mean annual earnings in excess of $10,000.

The key finding that emerges from Table 11, however, is the steep decline in the mean real annual earnings of all major subgroups of youth over the 1973-94 period, with males especially dropouts being the most adversely affected. Between 1973 and 1994, the mean annual earnings of young male dropouts declined by 38% and those of male graduates by 25%. While women did not escape these adverse developments, their real annual earnings fell more moderately (17 to 19 percent). While a portion of the estimated declines in annual earnings can be attributed to fewer weeks and hours of employment during the year, the bulk of the decline was due to deep drops in their real hourly and weekly earnings as will be noted below.

When the annual earnings analysis is confined only to those young adults with some paid employment experience during the year, the estimated declines in real earnings are somewhat less severe, especially among female dropouts. (Table 12 and bar chart). Males, however,

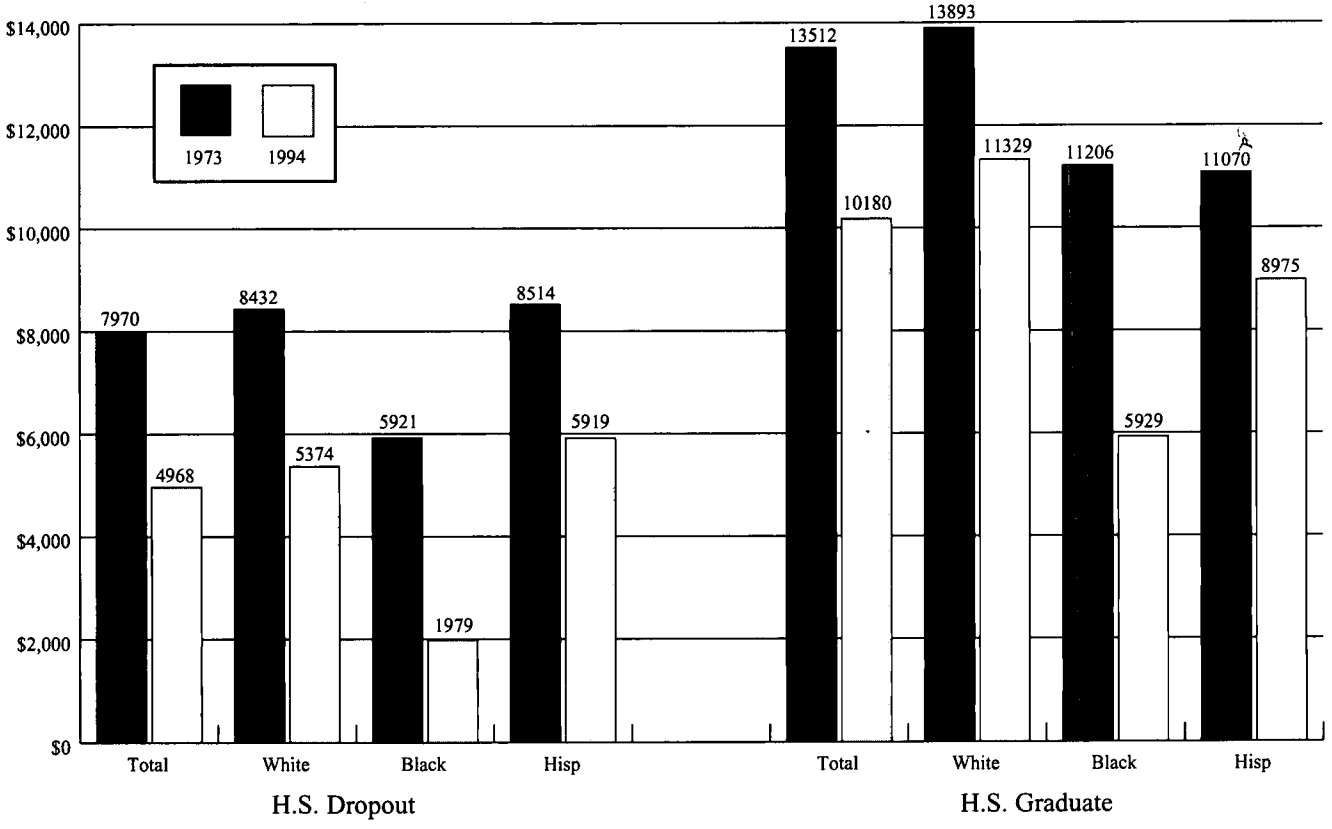
Table 11: Mean Real Annual Earnings of All 17-21 Year Olds Not Enrolled in School, by Graduation Status, Gender and Race/Ethnic Origin, Selected Years, 1973-1994 (in Constant 1994 Dollars)

	(A) 1973	(B) 1979	(C) 1989	(D) 1994	(E) Percent Change, 1973-94
Male H.S. Dropouts					
Total	$7,970	$7,509	$6,726	$4,968	-37.7%
White, non-Hispanic	$8,432	$8,058	$7,017	$5,374	-36.3%
Black, non-Hispanic	$5,921	$4,404	$3,940	$1,979	-66.6%
Hispanic	$8,514	$8,003	$7,874	$5,919	-30.5%
Male H.S. Graduates					
Total	$13,512	$14,197	$10,534	$10,180	-24.7%
White, non-Hispanic	$13,893	$14,916	$11,146	$11,329	-18.5%
Black, non-Hispanic	$11,206	$9,804	$8,212	$5,929	-47.1%
Hispanic	$11,070	$11,629	$10,141	$8,975	-18.9%
Female H.S. Dropouts					
Total	$2,805	$3,003	$2,602	$2,281	-18.7%
White, non-Hispanic	$2,968	$3,342	$2,983	$2,922	-1.6%
Black, non-Hispanic	$2,080	$1,716	$1,859	$1,176	-43.5%
Hispanic	$2,971	$3,037	$2,178	$1,843	-38.0%
Female H.S. Graduates					
Total	$7,172	$8,147	$7,445	$5,959	-16.9%
White, non-Hispanic	$7,538	$8,609	$7,981	$6,665	-11.6%
Black, non-Hispanic	$4,842	$5,043	$5,233	$4,265	-11.9%
Hispanic	$6,536	$7,707	$6,225	$4,183	-36.0%

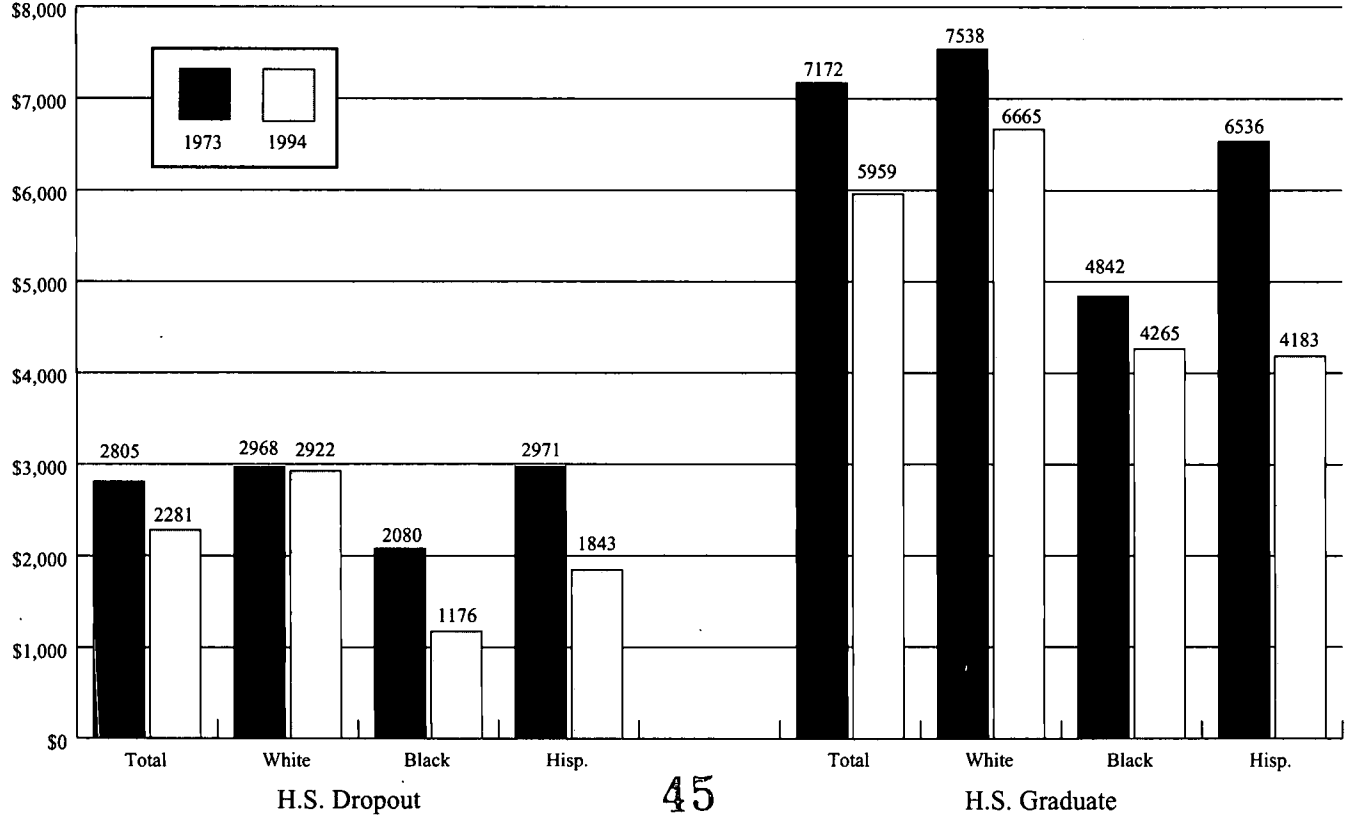
Table 12: Mean Real Annual Earnings of Employed 17-21 Year Olds Not Enrolled in School, by Graduation Status, Gender and Race/Ethnic Origin, Selected Years, 1973-1994 (in Constant 1994 Dollars)

	(A) 1973	(B) 1979	(C) 1989	(D) 1994	(E) Percent Change, 1973-94
Male H.S. Dropouts					
Total	$8,981	$8,986	$8,322	$6,843	-23.8%
White, non-Hispanic	$9,353	$9,193	$8,204	$6,517	-30.3%
Black, non-Hispanic	$7,049	$6,963	$6,238	$4,233	-40.0%
Hispanic	$9,848	$9,387	$9,629	$8,045	-18.3%
Male H.S. Graduates					
Total	$14,218	$14,926	$11,341	$11,175	-21.4%
White, non-Hispanic	$14,527	$15,392	$11,685	$12,107	-16.7%
Black, non-Hispanic	$12,242	$11,958	$9,643	$7,152	-41.6%
Hispanic	$12,024	$12,651	$11,231	$10,342	-14.0%
Female H.S. Dropouts					
Total	$4,761	$4,984	$4,440	$4,653	-2.3%
White, non-Hispanic	$4,671	$4,968	$4,329	$4,525	-3.1%
Black, non-Hispanic	$4,587	$4,364	$4,280	$3,478	-24.2%
Hispanic	$5,836	$5,854	$5,176	$5,408	-7.3%
Female H.S. Graduates					
Total	$8,649	$9,599	$8,698	$7,586	-12.3%
White, non-Hispanic	$8,806	$9,762	$8,915	$7,878	-10.5%
Black, non-Hispanic	$7,139	$7,737	$7,476	$5,980	-16.2%
Hispanic	$8,621	$10,156	$7,692	$7,084	-17.8%

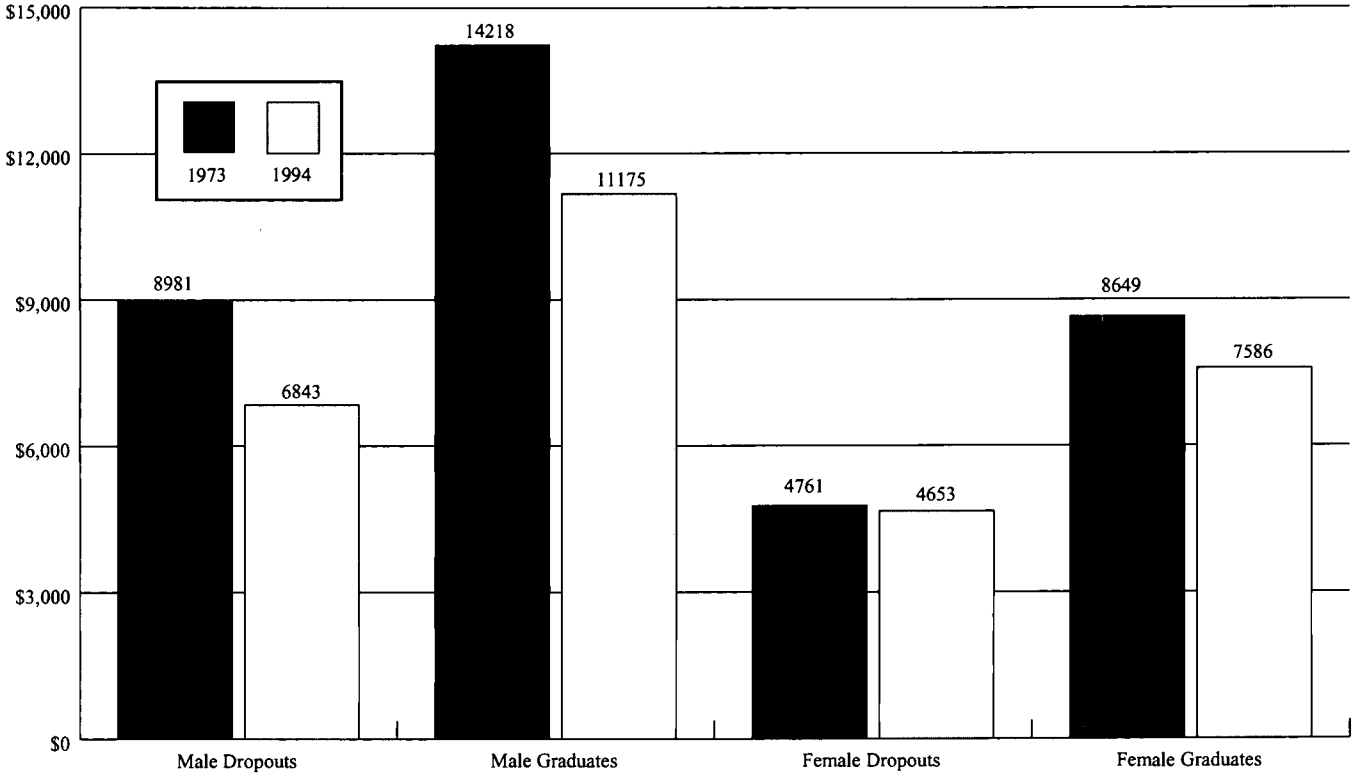
Mean Real Annual Earnings of All Non-Enrolled 17-21 Year Old Males,
by Graduation Status and Race/Ethnic Origin, 1973 and 1994



Mean Real Annual Earnings of All Non-Enrolled 17-21 Year Old Females,
by Graduation Status and Race/Ethical Origin, 1973 and 1994



Mean Real Annual Earnings of All Non-Enrolled 17-21 Year Olds,
by Gender and Graduation Status, 1973 and 1994



remain characterized by the steepest declines in their real annual earnings over the 1973-94 period, with high school graduates not faring much better than dropouts (-21% versus -24%). Among both dropouts and graduates, Black males were the most severely impacted, with annual earnings declines of 40%. These large declines in the real annual earnings of employed young men and women should be viewed as the core labor market problem facing out-of-school youth. Improvements in this outcome should be the priority of future youth employment and training initiatives.

Trends in the Real Weekly Earnings of Young Adults

The steep declines over the past two decades in the real annual earnings of employed young men and women with no formal schooling beyond the twelfth grade appear to be primarily attributable to their declining real hourly and weekly earnings. To analyze this issue of declining real weekly wages, we examined the weekly earnings of full-time employed 17-21 year old persons in 1973 and 1994. The 1973 weekly earnings data are based on the findings of the May 1973 CPS survey which collected hourly and weekly wage data for all employed wage and salary workers. The 1994 earnings estimates are based on our analysis of the February, March, October, and November CPS surveys.[18] The 1973 weekly earnings data were converted into their 1994 dollar equivalents via use of the CPI-UX1 index (Table 13).[19]

During 1973, the median real weekly earnings of all full-time employed young adults (under the age of 25) reached their post-World War II peak and have declined considerably since then. Similar developments took place for the youngest members of the full-time employed. Between 1973 and 1994, the median real weekly earnings of

all full-time employed 17-21 year olds regardless of schooling declined from $318 to $247, a reduction of $71 or 22%. This deterioration in young workers' earnings took place despite the fact that they had become better educated over time, with a sharp decline in the share of school dropouts in this population group and a rise in the fraction of young full-time workers who had completed some post-secondary schooling.[20]

Both young men and women experienced steep declines in their real weekly earnings over the past two decades; however, young men's earnings declined at a considerably higher rate than those of women (33% vs. 19%). As a consequence of these divergent rates of decline, the median weekly wages of female full-time workers rose relative to those of young men. By 1994, the median weekly wages of young women were equivalent to 90% of those of men versus only 75% two decades earlier.

Table 13:
Trends in the Median Real Weekly Earnings of 17-21 Year Olds Employed Full-Time, by Gender and High School Graduation Status, 1973-1994

Group	(A) 1973	(B) 1994	(C) Absolute Change	(D) Percent Change
All(1)	$318	$247	$-71	-22%
Men	$382	$257	-125	-33%
Women	$286	$231	-55	-19%
High School Dropouts	315	234	-81	-26%
High School Graduates, No Post-Secondary Schooling	321	255	-66	-21%
Male High School Dropouts	340	241	-99	-29%
Male High School Graduates	382	268	-114	-30%
Women as % of Men	75	90		
High School Dropouts as % of Graduates	98	92		
Male High School Dropouts as % of Graduates	89	90		

Note: (1) All includes full-time workers with some schooling beyond high school.

Source: May 1973; February, March, October, November 1994 CPS surveys; tabulations by Center for Labor Market Studies.

Both high school dropouts and high school graduates with no post-secondary schooling encountered sharp drops in their median real weekly earnings between 1973 and 1994, with dropouts faring more poorly than graduates (-26% versus -21%). Among full-time employed men, however, dropouts and high school graduates experienced wage declines of equal magnitude (-29% and -30%, respectively). The weekly wage position of young male dropouts relative to that of high school graduates remained unchanged between 1973 and 1994, with full-time employed male dropouts earning approximately 90% of the weekly wages of their young counterparts with a high school

diploma or GED. The considerably lower relative annual earnings of young male dropouts is due to their more limited frequency of paid employment during the year and their fewer weeks and hours of employment when they do work. The real wage prospects for young male and female high school graduates who do not enroll in college remain quite bleak. The needs of both groups deserve a priority in the design of future employment and training programs for out-of-school youth.

In recent years, increased attention has been paid to the problem of rising wage inequality in the U.S.[21] Among full-time wage and salary workers, the wages of those at the 90th percentile of the weekly earnings distribution have risen sharply relative to those at the 10th and 20th percentiles. For example, during 1979, the weekly wage of male full time workers (16+) at the 90th percentile of the distribution was 3.42 times as high as those of male workers at the 10th percentile. By 1994, this relative wage differential had risen to 4.43.[22] Among full-time female workers, wage inequality has risen even more sharply over the past 15 years. In 1979, full-time female workers at the 90th percentile of the wage distribution for women received weekly wages that were 2.6 times as high as those of women at the 10th percentile. By 1994, this relative wage difference had risen to a multiple of 4.1. The wage distribution for women has become considerably more dispersed as job opportunities for better educated and more literate women have improved.

To determine whether wage inequality has increased among young full-time workers in the U.S., we examined the wage distribution for full-time workers ages 17-21 in both 1973 and 1994. The findings in this analysis are confined to those young adults who had not completed any additional years of formal schooling beyond high school

(Table 14). Findings are displayed for all young full-time workers and for men and women separately.

As expected, the wage distribution for young full-time workers is considerably less dispersed than for adult workers. In 1973, the weekly earnings of young full-time workers at the 90th percentile of the distribution was 2.46 times as high as that of their counterparts at the 10th percentile. Among all full-time workers, the relative wage differential for these same two groups was 3.75.[23] The most interesting finding in Table 14 is that the wage distribution for young full-time workers did not become more unequal over the past twenty years. In fact, each of our three measures of relative wage inequality (W_{90}/W_{10}, W_{90}/W_{20}, and W_{90}/W_{50}) for young full-time workers was characterized by a moderate decline between 1973 and 1994. Similar findings hold true for young men, but not for young women. Wage differentials for full-time employed young women rose moderately over the past two decades, especially between the wages of women at the top of the earnings distribution (the 90th percentile) and the bottom two deciles. By 1994, the degree of inequality in the young women's wage distribution was nearly identical to that of young men.

Table 14:
Trends in Relative Wage Inequality Among Full-Time Employed 17-21 year Old Men and Women in the U.S. with No Schooling Beyond 12th Grade, 1973-1994

Group	(A) W_{10}	(B) W_{20}	(C) W_{50}	(D) W_{90}	(E) W_{90}/W_{10}	(F) W_{90}/W_{20}	(G) W_{90}/W_{50}
All							
• 1973	68	78	100	167	2.46	2.14	1.67
• 1994	963	192	245	392	2.40	2.04	1.60
Men							
• 1973	75	85	120	190	2.53	2.23	1.58
• 1994	172	200	259	427	2.48	2.13	1.65
Women							
• 1973	63	70	88	130	2.06	1.86	1.48
• 1994	156	172	230	349	2.24	2.03	1.52

Note: The weekly wage data for each year are in nominal terms, not adjusted for inflation.

Source: May 1973; February, March, October, and November 1994 CPS surveys, tabulations by Center for Labor Market Studies.

Since the wage distribution for all full-time employed 17-21 year olds and for males did not become more unequal over the past two decades, the declines in the real weekly earnings of young full-time workers must have been quite pervasive, affecting low wage, median wage, and high wage workers. Evidence in Table 15 is quite clear on this point. The 1973 and 1994 real weekly earnings (in constant 1994 dollars) of young full-time workers at the 10th, 20th, 50th, and 90th percentiles are compared to one another, and rates of decline are calculated for each of these four groups.

Table 15:
Trends in the Real Weekly Wages of Full-Time Employed 17-21 Year Olds[1] at Various Points Along the Wage Distribution, 1973-1994
(in Constant 1994 Dollars)

Group	(A) W_{10}	(B) W_{20}	(C) W_{50}	(D) W_{90}
All				
• 1973	213	245	314	524
• 1994	163	192	245	392
• Percent Change	-24%	-22%	-22%	-25%
Men				
• 1973	235	267	377	597
• 1994	172	200	259	427
• Percent Change	-27%	-25%	-31%	-28%
Women				
• 1973	198	220	276	408
• 1994	156	172	230	340
• Percent Change	-21%	-22%	-17%	-15%

Note: 1. Findings pertain only to those young adults with no formal schooling beyond the twelfth grade.

For all young full-time workers the relative sizes of the weekly earnings declines are quite large across the entire wage distribution, ranging from 22 to 25 percent at each of our four wage positions. Among young male full-time workers, the findings are quite similar. Steep wage declines occurred across the board with the size of the relative wage declines ranging from 25 to 31 percent. Among women, while all full-time workers experienced wage declines, the relative sizes of these declines were lowest for women at the top end of the distribution (-15%) and highest for those in the bottom two deciles (-21 to -22 percent).

The Changing Labor Market Fortunes of 22-29 Year Olds With No Post-Secondary Schooling

The labor market problems of the nation's young adults do not come to an abrupt end as they reach their mid to late 20's. The real annual earnings position of young adult males (22-29 years old) with no post-secondary education also has deteriorated substantially over the past two decades while most subgroups of young adult women have obtained moderate increases in their real annual earnings due primarily to an increased attachment to the labor market and more hours of work per year.

To illustrate the changing labor market fortunes of the nation's young adults, we have generated estimates of the real annual earnings of key subgroups of 22-29 year old men and women during selected years over the 1973-94 period (Tables 16 and 17). The annual earnings estimates are presented first for all 22-29 year old men and women with no post-secondary schooling and then for those who had some paid employment during each calendar year.

Clearly, the labor market problems of young male dropouts and high school graduates do not fade away as they reach age 22. The mean real annual earnings of male school dropouts (22-29 years old) fell from just under $20,000 in 1973 to only $11,223 in 1994, a decline of $8,300 or 42% (Table 16). The relative sizes of these earnings declines among young males dropouts were quite large for both 22-25 year olds and 26-29 year olds. Male high school graduates fared only moderately better than their dropout counterparts over this twenty year period, with their mean annual earnings declining by one-third over the 1973-94 period. Again, the relative size of these declines among young graduates was quite substantial for both 22-25 and 26-29 year olds. As young male dropouts and graduates move through their mid to late 20's, their

Table 16:
Mean Real Annual Earnings of All 22-29 Year Olds With No Post-Secondary Schooling Who Were Not Enrolled in School, by Gender, Age, and High School Graduation Status, Selected Years, 1973-1994
(in 1994 Dollars)

						Percent Change				
	1973	1979	1982	1989	1994	73-79	79-82	82-89	89-94	73-94
Male H.S. Dropouts										
Total	$19,519	$17,355	$12,390	$13,476	$11,223	-11.1%	-28.6%	8.8%	-16.7%	-42.5%
Ages 22-25	$17,574	$15,621	$11,597	$12,147	$10,200	-11.1%	-25.8%	4.7%	-16.0%	42.0%
Ages 26-29	$21,575	$19,359	$13,326	$14,713	$12,307	-10.3%	-31.2%	10.4%	-16.4%	-43.0%
Male H.S. Graduates										
Total	$26,355	$24,126	$19,453	$20,501	$17,516	-8.5%	-19.4%	5.4%	-14.6%	-33.5%
Ages 22-25	$23,026	$21,931	$17,288	$17,992	$14,935	-4.8%	-21.2%	4.1%	-17.0%	35.1%
Ages 26-29	$29.769	$27,028	$21,805	$22,621	$19,868	-9.2%	-19.3%	3.7%	-12.2%	-33.3%
Female H.S. Dropouts										
Total	$4,169	$4,829	$4,016	$4,543	$3,972	15.8%	-16.8%	13.1%	-12.6%	-4.7%
Ages 22-25	$3,862	$4,452	$3,506	$4,146	$3,378	15.3%	-21.3%	18.3%	-18.5%	-12.5%
Ages 26-29	$4,454	$5,264	$4,568	$4,940	$4,555	18.2%	-13.2%	8.2%	-7.8%	2.3%
Female H.S. Graduates										
Total	$7,886	$10,046	$9,746	$10,868	$9,906	27.4%	-3.0%	11.5%	-8.8%	25.6%
Ages 22-25	$8,332	$10,009	$9,739	$10,523	$8,984	20.1%	-2.7%	8.0%	-14.6%	7.8%
Ages 26-29	$7,395	$10,087	$9,754	$11,149	$10,712	36.4%	-3.3%	14.3%	-3.9%	44.9%

Source: March CPS work experience and income surveys, tabulations by Center for Labor Market Studies, Northeastern University.

Table 17:
Mean Real Annual Earnings of Employed 22-29 Year Olds With No Post-Secondary Schooling Who Were Not Enrolled in School, by Gender, Age, and High School Graduation Status, Selected Years, 1973-1994
(in 1994 Dollars)

						Percent Change				
	1973	1979	1982	1989	1994	73-79	79-82	82-89	89-94	73-94
Male H.S. Dropouts										
Total	$20,609	$19,073	$14,656	$15,129	$13,605	-7.5%	-23.2%	3.2%	-10.1%	-34.0%
Ages 22-25	$18,830	$16,962	$13,467	$13,806	$12,666	-9.9%	-20.6%	2.5%	-8.3%	-32.7%
Ages 26-29	$22,430	$21,559	$16,113	$16,334	$14,553	-3.9%	-25.3%	1.4%	-10.9%	-35.1%
Male H.S. Graduates										
Total	$27,044	$24,826	$20,846	$21,424	$18,795	-8.2%	-16.0%	2.8%	-12.3%	-30.5%
Ages 22-25	$23,707	$22,742	$18,515	$18,863	$16,125	-4.1%	-18.6%	1.9%	-14.5%	-32.0%
Ages 26-29	$30,427	$27,528	$23,359	$23,576	$21,200	-9.5%	-15.1%	0.9%	-10.1%	-30.3%
Female H.S. Dropouts										
Total	$8,012	$8,900	$8,501	$8,948	$8,450	11.1%	-4.5%	5.3%	-5.5%	5.5%
Ages 22-25	$7,527	$8,525	$7,467	$8,227	$7,636	13.3%	-12.4%	10.2%	-7.2%	1.4%
Ages 26-29	$8,450	$9,298	$9,606	$9,659	$9,171	10.0%	3.3%	0.6%	-5.1%	8.5%
Female H.S. Graduates										
Total	$12,073	$13,320	$13,211	$13,632	$13,200	10.3%	-0.8%	3.2%	-3.2%	9.3%
Ages 22-25	$11,892	$12,784	$12,692	$12,933	$11,714	7.5%	-0.7%	1.9%	-9.4%	-1.5%
Ages 26-29	$12,306	$13,963	$13,814	$14,223	$14,553	13.5%	-1.1%	3.0%	2.3%	18.3%

Source: March CPS work experience and income surveys, tabulations by Center for Labor Market Studies, Northeastern University.

mean earnings rise fairly steadily; however, they never come close to recouping the real earnings levels they had achieved in 1973, the peak year for their real earnings.

A portion of the steep decline in the real annual earnings position of young men between 1973 and 1994 was attributable to a rising share of young men with no paid employment during the year. This rising fraction of non-employed males was particularly pronounced for those young men who failed to obtain a high school diploma or a GED certificate. If we exclude these zero earners from our analysis of annual earnings trends, the estimated rates of decline in the mean annual earnings of young men become somewhat smaller for dropouts and graduates (Table 17). The size of these annual earnings declines among employed young men remain quite large, however, being equal to 34% for school dropouts and 31% for high school graduates with no post-secondary schooling.

A more detailed analysis of time trends in the real annual earnings of young male dropouts and graduates (22-29 years old) reveals that earnings declined moderately during the 1973-79 period and very steeply during the recessionary and inflationary era of 1979-82. During the employment boom of the 1980s, real earnings of young men improved to a moderate degree (4 to 10 percent for the various subgroups), bur then fell sharply across the board from 1989 to 1994 (See Table 16). Periods of strong aggregate employment growth boost the annual earnings of young men primarily through increasing their ability to secure some employment during the year and raising annual hours worked among those with some paid employment. The real weekly wages of young men did <u>not</u> improve during the 1982-89 job boom.

In contrast to the steep declines in the real annual earnings of young men with no post-secondary schooling,

young adult women either came close to maintaining their real annual earnings position or actually improved their real earnings over the 1973-94 period. Among all 22-29 year old female dropouts regardless of their employment status, mean real annual earnings fell by only 5 percent over the above time period while high school graduates actually increased their annual earnings by 26%. (Table 16). Almost all of the improvement in their mean annual earnings, however, took place between 1973 and 1979. The mean annual earnings of young female high school graduates (22-29 years old) in 1994 was statistically identical to that of 1979.

The rise in the real annual earnings of young female high school graduates over the past two decades was almost entirely attributable to a rising incidence of labor force participation and to increased weeks and hours of paid employment during the year. For example, when the analysis of real annual earnings trends is confined to those with some paid employment, we find that the mean annual earnings of employed young women with a high school diploma rose by only 9% between 1973 and 1994, again with all of this improvement taking place between 1973 and 1979. Over the past two decades, young female high school graduates have increased the strength of their attachment to the labor market. During 1973, only 29% of 22-29 year old female high school graduates reported that they worked year-round, full-time. By 1979, the share of year-round, full-time workers had risen to 37% and would increase further to 43% by 1994. Mean annual hours of work among employed female high school graduates rose from 1,510 in 1979 to over 1,630 by 1994, a rise of 8%. Since the work effort of employed young women over this 15 year period increased at a higher rate than their real annual earnings, their real weekly earnings must have deteriorated over the past two decades. To illustrate this, let us directly

examine trends in the real weekly earnings of full-time employed young men and women over the 1973-94 period.

Trends in the Real Weekly Earnings of Full-Time Employed Young Adults (22-29)

Our earlier analysis of trends in the weekly earnings of the nation's youngest full-time employed workers ages 17-21 revealed that the real weekly earnings of these young men and women had deteriorated substantially between 1973 and 1994, with young men being most adversely affected. We have replicated this weekly wage analysis for 22-29 year old men and women who were employed full-time in 1973 and 1994. The analysis is confined to those 22-29 year olds who had completed 12 or fewer years of schooling.

The median real weekly wages of full-time employed young males declined from $502 to $304 between 1973 and 1994, a reduction of 39% (Table 18). Steep real wage reductions for these young men occurred across the entire wage distribution, with the relative size of these wage declines ranging from 35% to 40%. Among women, full-time workers with no post-secondary schooling also experienced fairly substantial wage declines; however, the sizes of these reductions were well below those of young men. For example, the median weekly earnings of full-time employed young women fell by 21% versus a 39% decline for young men. The weekly wages of these young women also fell across the entire wage distribution. High wage earners (those at the 80th percentile) as well as low wage earners (those at the 20th percentile) experienced similar-sized relative declines in their weekly earnings position between 1973 and 1994. The moderate gains in the annual earnings of young women over the past 20 years were, thus,

solely attributable to increased weeks and hours of employment rather than to real wage increases.

Young women employed full-time improved their weekly wage position relative to young men over the 1973-1994 period (Table 19). During 1973, the median weekly earnings of young women employed full-time were equal to two-thirds of those of young men, and similar wage ratios prevailed at the bottom and top of the weekly wage distribution. By 1994, however, the median weekly earnings of full-time employed young women had risen to 86% of those of young men and substantial improvements in these relative wage ratios had taken place across the wage distribution. Unfortunately, all of the gains in the relative wages of full-time employed young women with no post-secondary schooling occurred as a result of a steep deterioration in the real weekly wages of young men with no post-secondary schooling.

Table 18:
Trends in the Real Weekly Earnings of Full-Time Employed 22-29 Year Old Male and Female High School Dropouts and Graduates, 1973 to 1994
(in 1994 Dollars)

Gender Group/Year	(A) 20th Percentile	(B) 40th Percentile	(C) Median	(D) 60th Percentile	(E) 80th Percentile
Men					
• 1973	364	462	502	549	644
• 1994	225	277	304	336	421
Percent Change	-38%	-40%	-39%	-39%	-35%
Women					
• 1973	251	314	330	364	440
• 1994	189	242	260	278	347
Percent Change	-25%	-23%	-21%	-24%	-21%

Note: (1) 1973 data are based on the May 1973 CPS wage survey.
(2) 1994 data are averages based on the February, October, and November surveys.

Table 19:
The Weekly Earnings of Full-Time Employed 22-29 Year Old Women Relative to Those of Men, by Selected Percentiles, U.S.: 1973 and 1994

	Percentile of Wage Distribution				
Year	20th	40th	50th	60th	80th
1973	69%	68%	66%	66%	68%
1994	84%	87%	86%	83%	82%

Note: Findings pertain to those men and women who had completed 12 or fewer years of schooling.

The decline in the economic fortunes of young adult men with no post-secondary schooling has had a number of consequences for the schooling and marriage behavior of young men and the economic well-being of young families and their children. First, the substantial rise in the relative earnings position of four year college graduates has induced a greater share of young male (and female) high school graduates to enroll in college immediately after graduation from high school. Over the past 15 years, the fraction of young male high school graduates enrolling in a two or four year post-secondary educational institution has risen from slightly under 50% to nearly 62%.[24]

Second, the marriage rates of young adult men without any college education have plummeted sharply over the past two decades. Between March 1974 and March 1995, the proportion of all 20-29 year old men who were married and living with their spouses fell from 53% to 29%, representing a relative decline of nearly 46%. In 1974, approximately 60% of young, male high school dropouts and graduates were married. By 1995, less than one-third of young males in the above two educational groups were married and living with their spouses. A variety of economic, social, and cultural forces have influenced the delays in marriage among young men and women. These declines have not been unique to young men with only 12 years of schooling; however, the steep drops in the real annual earnings of young men with no post-secondary schooling has contributed in a substantive way to their lower marriage rates. The higher the annual earnings of young men, the greater the likelihood that they are married and living with their spouses. The reductions in the real annual earnings of young men with no post-secondary schooling have accounted for between 25% and 30% of the decline in their marriage rates over the past two decades.[25] These relationships hold true for high school dropouts as well as

high school graduates and for White males as well as Black males.

Third, the declines in the real earnings of young men with no post-secondary schooling and the reduced propensity for young men to marry even when they have become fathers have had disastrous consequences for the economic well-being of young families and the fate of children residing in those families.[26] The real median income of all young families (with a householder under 30 years of age) with one or more own children declined by 34% between 1973 and 1992, and the poverty rate among children in young families more than doubled over the same time period, rising to 42% in 1992.

Trends in the Age/Earnings Profiles of Young Adult Men; Implications for Future Human Resource Investment Programs

The employment and earnings difficulties experienced by the youngest members of the nation's out-of-school population (17-21 years old) clearly do not vanish as they mature and reach their mid to late 20's. Among young adult men (22-29) with no post-secondary schooling, real annual earnings continue to rise quite steadily and strongly as they gain more work experience; however, they never come close to recapturing their 1973 real earnings position as they move through their late 20's (Table 20 and accompanying bar chart). Among both male high school dropouts and high school graduates, the 1994 mean real earnings of young men from ages 22 to 29 fall well below those achieved in 1973. Among young male school dropouts, real annual earnings of 29 year olds in 1994 were nearly $2,000 below the level of a dropout male's earnings at age 22 in 1973. Among male high school graduates, the mean 1994 annual earnings of 29 year olds was only $800

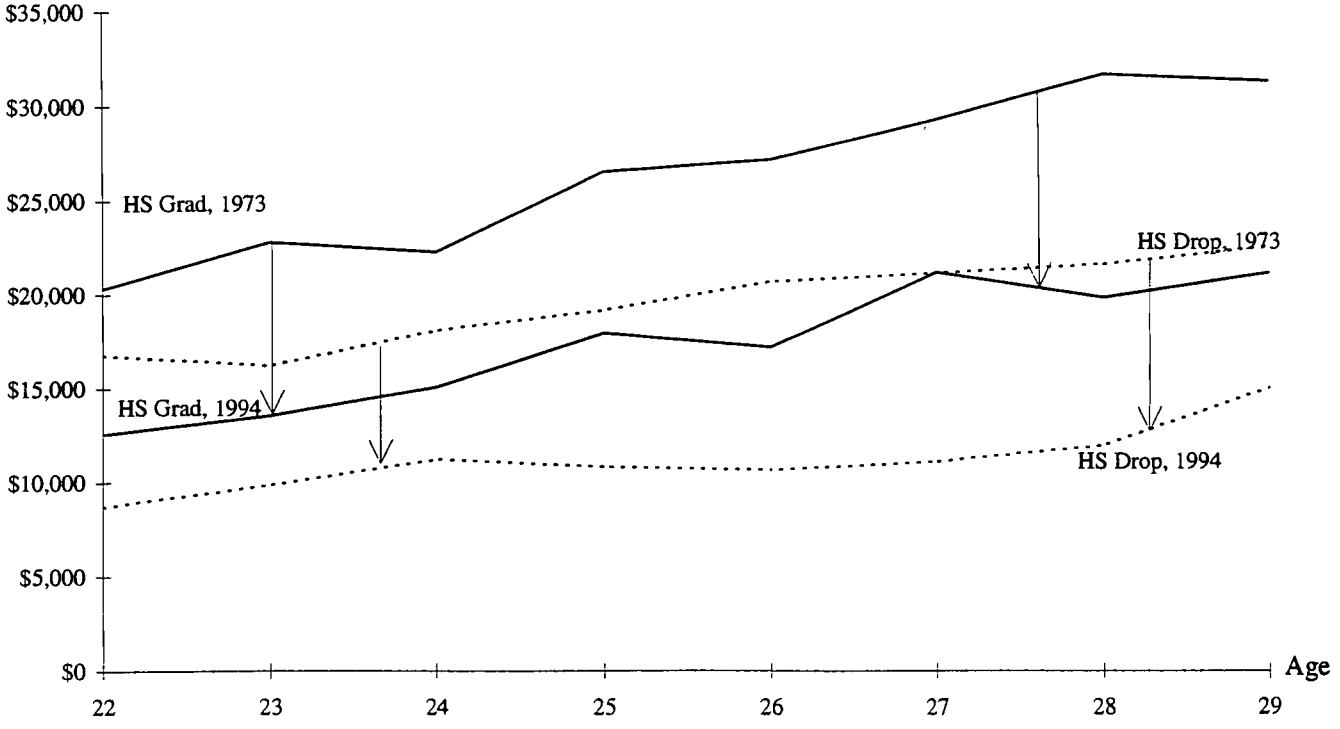
above that of a 22 year old in 1973. Clearly, the state of "economic adolescence" for these young men has been extended considerably into their adult years. The bridge from adolescence to economic adulthood for these young men clearly has become "a bridge too long".

Table 20:
Age-Earnings Profiles of 22-29 Year Old Males With No Post-Secondary Schooling Who Were Not Enrolled in School, by H.S. Graduation Status, 1973 and 1994
(in 1994 Dollars)

	1973	1994	Absolute Change	Percent Change
All High School Dropouts				
22	$16,792	$8,670	-$8,122	-48.4%
23	$16,256	$9,885	-$6,371	-39.2%
24	$18,122	$11,257	-$6,865	-37.9%
25	$19,229	$10,862	-$8,366	-43.5%
26	$20,758	$10,704	-$10,053	-48.4%
27	$21,194	$11,120	-$10,074	-47.5%
28	$21,661	$12,014	-$9,647	-44.5%
29	$22,601	$15,041	-$7,560	-33.4%
All High School Graduates				
22	$20,327	$12,566	-$7,761	-38.2%
23	$22,828	$13,557	-$9,271	-40.6%
24	$22,308	$15,119	-$7,189	-32.2%
25	$26,610	$17,986	-$8,624	-32.4%
26	$27,248	$17,233	-$10,015	-36.8%
27	$29,370	$21,231	-$8,139	-27.7%
28	$31,739	$19,894	-$11,845	-37.3%
29	$31,374	$21,172	-$10,202	-32.5%

The cumulative sizes of the earnings losses experienced by young adult men with no post secondary schooling over the 22-29 age range are quite considerable, being equal to $67,000 for dropouts and $73,000 for high school graduates. Since these earnings losses accrue over time, a standard procedure for converting them into a

Age-Earnings Profiles of Non-Enrolled 22 to 29 Year Old Males, Includes Zero Earners, by Graduation Status, 1973 and 1994 (in 1994 Dollars)



common metric involves the use of a given discount rate to convert each year's annual earnings loss into a present value equivalent. We have used real discount rates of 10% and 15%, respectively, to derive the present values of the estimated losses in earnings of young men over the age range 22 to 29. The present value estimates pertain to age 21. Using a 10 percent discount rate yields a present value for the stream of earnings losses experienced by dropouts of $43,900 and for high school graduates of nearly $48,000 (Table 21).

Table 21:
Estimated Present Values of the Cumulative Annual Earnings Losses of 22-29 Year Old Male School Dropouts and Graduates,[1] 1973 vs. 1994, at Alternative Discount Rates

	(A)	(B)
Group	10% Discount Rate	15% Discount Rate
School Dropouts	$43,932	$36,629
High School Graduates	$47,664	$39,705

Note: High school graduates in 1994 are those persons who obtained a high school diploma or a GED, but did not complete more than 12 years of schooling.

The estimated sizes of these present values of earnings losses possess important economic meaning for human resource policymaking. Suppose that national and state human resource policymakers wished to invest in young out-of-school males to improve their earnings potential sufficiently to enable them to recapture their real earnings stream in 1973, the peak year for their real annual earnings. Given an expected rate of return of 10% or 15% on these investments, how much money would the nation have to invest in these young out-of-school males from ages 18-21

to generate a stream of earnings gains over the 22-29 year age range that would restore their 1973 age-earnings profile. The answers are precisely those appearing in Table 21. If a 15% rate of return could be earned on these investments, then the nation would need to invest nearly $37,000 in young male dropouts and approximately $40,000 in young male graduates. If these proposed investments could generate only a 10% rate of return, the amounts of human capital investments required would be $44,000 and $48,000, respectively, for high school dropouts and graduates. To place these investment figures in perspective, consider the fact that the mean cost of the education and training services received by out-of-school young males in the national JTPA demonstration was only $2300-$2900, only a small fraction (less than 10%) of the human resource investments that would be needed to restore their earnings power to their 1973 levels.[27]

Unfortunately, there have been few recent national evaluations of out-of-school youth programs for males that have shown sizable, statistically significant positive earnings impacts. A recent five-year impact evaluation of JTPA programs for out-of-school youth by the General Accounting Office revealed no significantly different positive earnings effects for males until the fifth post-program year during which JTPA assignees obtained mean annual earnings $800 above that of the control group.[28] The national Jobstart evaluation by MDRC yielded findings of positive, but statistically insignificant earnings impacts for males during the third and fourth post-program years.[29] Use of a one-tailed test would have allowed the fourth year earnings impact for men to come close to statistical significance at the .10 level. Given the typical high variance in the annual earnings of young men and the relatively small sample sizes for men in the MDRC evaluation (only 450 experimentals and controls), it is difficult to detect

statistically significant results unless annual earnings impacts are in the $600-700 range. Such annual earnings advantages would replace less than 10% of the real earnings losses experienced by young men over the past two decades.

Even if they are successful in generating positive earnings impacts in the $600-700 range, a very favorable result, limited investments in the human capital of young out-of-school men can only be expected to replace a small fraction of the earnings losses that they have experienced in the past two decades. Few labor market analysts have been willing to acknowledge the sustained, deep deterioration in the real annual earnings of the male members of the "Forgotten Half". New initiatives for in-school and out-of-school youth must be carefully and rigorously evaluated to guarantee that such investments can significantly improve the earnings prospects of participants. Experimentation with costlier and more lengthy interventions would also be desirable to test whether such investments can yield more favorable and sizable earnings impacts. The need for new interventions for this group is well documented. What is required is evidence that these program investments are efficient in raising the lifetime earnings of male and female participants.

Implications for Future Youth Programs

One of the major challenges for new youth employment and training initiatives is to develop strategies that will be able to boost the real weekly earnings of young full-time workers, particularly those with no post-secondary schooling. While improved employment prospects for young adults, especially male and female dropouts, can improve annual earnings independently of any changes in their real wages, all young adults would benefit from improved real weekly earnings. Achieving this objective is

likely to prove to be a major challenge over the remainder of this decade.

These declines in the real weekly earnings of most full-time employed young adults have been taking place over the past two decades, and there is no evidence of any fundamental turnaround. Over the past four years of economic recovery from the 1990-91 recession, full-time job prospects for young men have improved only marginally while there were fewer young women employed full-time in 1995 than in 1991.[30] During the same time period, the median real weekly earnings of young men and women have continued to decline (Table 22). The median weekly earnings of full-time employed young males in all educational groups in 1995 were $303, a wage level that was $17 or 5% below their real weekly earnings in 1991. Among full-time employed young women, median weekly earnings were only $275 in 1995, representing a drop of $23 or 8% since 1991. Over the same time period, the median real weekly earnings of all full-time workers (16+) were basically unchanged at $479.[31] Young full-time workers have, thus, seen their weekly wage position relative to adults (25+) continue to deteriorate over the past four years.

Table 22:
Trends in Full-Time Employment and Median Weekly Earnings (in Constant 1995 Dollars) of Young Men and Women (16-24) in the U.S., 1991 to 1995

Variable/ Gender Group	(A) 1991	(B) 1995	(C) Percent Change
Full-Time Employed (in 1000's)			
• Men	5,714	6,118	+7%
• Women	4,488	4,366	-3%
Median Weekly Earnings			
• Men	320	303	-5%
• Women	298	275	-8%

Note: The 1995 employment estimates are based on the 1990 population controls and, thus, are not directly comparable to the 1991 estimates. The young adult population was revised upwards by the U.S. Census Bureau in 1994 to reflect population estimates from the 1990 Census.

Unfortunately, many of the past evaluations of youth employment and training programs (Supported Work, JTPA Title II out-of-school youth, Jobstart, STEP) have shown few significant gains in the weekly or annual earnings of participants relative to control group members. A failure to achieve higher weekly earnings for employed participants was a major obstacle to the success of these programs. While the national impact evaluation of Job Corps in the late 1970s by Mathematica Policy Research Inc. did find significant earnings gains for participants in the second and third years following program termination, all of the annual earnings advantages for the combined sample of participants (men and women) were due to more hours of work per week rather than to significantly higher hourly earnings.[32]

For example, in the second post-program year, former Job Corps participants earned between $9 and $10 more per week than comparison group members, but they worked 3 to 4 more hours per week to achieve this result. Adjusting for hours worked, there is no significant difference in weekly earnings between these two groups. Male participants worked more hours per week than control group members, but did not quite match their hourly earnings. Only those female Job Corps participants who did not have any children in the post-program followup period earned significantly higher hourly wages than the comparison group, an hourly wage difference of close to $1.

The absence of significant hourly earnings impacts for most youth employment and training programs remains a puzzle. The "black box" problem still pervades most, if not all, of the experimental design evaluations of youth employment and training programs, including the recent national JTPA impact evaluations by Abt Associates and the GAO. Findings of past evaluations need to be analyzed in a more disaggregated manner to provide insights into this problem. One might argue that the weekly earnings distribution for young adults, especially those with limited formal schooling, is quite compressed; thus, wages for job placed program terminees will not vary significantly from those obtained by employed members of the control or comparison group. While the young adult wage structure is considerably less dispersed than that for adults (22 and over), there still remain important wage differences among the full-time employed. In 1994, the median weekly earnings of full-time employed young adults (17-21 years old, with no formal schooling beyond high school) were 50% above those of workers at the 10th percentile of the earnings distribution for young adults and 28% higher than that of workers at the 20th percentile. Why cannot youth programs succeed in moving participants significantly

further up the wage queue? This critical question has not been adequately answered to date.

It would be helpful to improve our knowledge base on key features of the actual post-program labor market experiences of youth program participants and control group members. Do employed members of both groups obtain the same types of jobs by industry and occupation in their local labor markets and, thus, end up earning the same hourly or weekly wages? Or do youth program terminees obtain somewhat different jobs but no differences in wages? Are programs unable to obtain jobs for graduates in higher paying firms and occupations? Is this problem associated with weaknesses in job development and placement activities or in higher wage employers' reluctance to commit themselves to the hiring of youth program terminees?

A more detailed examination of the actual post-program labor market experiences of youth participants would also provide useful insights into the factors associated with higher wages and earnings of program terminees. How do the pre-existing human capital traits of these youth program participants and their experiences in programs influence their post-program labor market outcomes? Previous research by the authors had revealed that economically disadvantaged youth program participants with more years of formal schooling and higher reading/math proficiencies typically achieved superior post-program employment and earnings outcomes.[33] Earlier analyses of the 1970s Job Corps followup data for participants revealed that those Corps members (both men and women) who obtained a GED credential while in Job Corps and those males trained in blue collar craft, operative, and clerical occupations obtained higher weekly earnings. A more recent evaluation of the labor market experiences of Job Corps terminees reveals quite clearly the importance of

having terminees secure employment in occupations related to their field of training in Job Corps.[34] Those 1990s Job Corps terminees found to be employed in training-related jobs earned nearly $1.00 per hour more than their counterparts who were working in positions unrelated to their field of training, a near 20% wage differential.

Findings of the effectiveness of vocational education programs at the secondary and post-secondary levels and of military training also consistently reveal the importance of training-related placements for the ability of such programs to significantly affect the wages and earnings of the graduates of such programs. The education and training experiences of participants during the course of their stay in these programs does matter. Some self-selection elements are likely at work here with more literate and motivated participants securing such credentials, but we believe that what we do for participants while they are enrolled in the program and what they do for themselves does matter to their post-program experiences.

Past research findings on youth employment and training programs also suggest that the personal commitment of participants to the programs does influence the size of their economic impacts. Job Corps participants who leave after short stays in the centers receive no economic benefits from the program. Youth Entitlement Program participants who left high school before graduation did not fare any better than their counterparts in the comparison sites in securing employment at the time of the last followup survey. The more recent followup study of Job Corps terminees by the Inspector General's Office (OIG) revealed that short stayers not completing their programs of training were considerably less likely to be working 15-18 months after termination and received substantially lower wages than those Job Corps terminees

who completed their training program. The earlier national Job Corps evaluation (late 1970s) revealed that those Corps members who obtained a GED while in the program, holding all other earnings determinants constant, obtained weekly earnings 15 to 30 percent higher than Corps members who did not obtain a GED. Previous findings of Jobs for America's Graduates school-to-work transition programs found that those participants with only limited involvement in the program (less than 40 hours of treatment) did not fare any better than comparison group members in the labor market during the first year following high school graduation.

Participants in vocational-technical education programs who do not enroll in a highly structured set of courses while in high school receive no lasting benefits from such training. Despite their current popularity, these non-intensive vocational treatments do not appear to significantly raise any high school graduate's wages or earnings. Overall, these findings indicate that youth education and training programs can only succeed if the young people served in these programs make serious commitments to the program and complete the full range of services that are offered. Limited exposure to program services and non-intensive treatments cannot produce any favorable lasting economic impacts and constitute a waste of scarce resources.

One of the major challenges facing the designers of new education and training initiatives for out-of-school youth is the need to develop a high quality and diverse range of services and a set of economic incentives for participating in programs so that youth will stay in long enough to benefit from these services. Our past track record in keeping many economically disadvantaged youth in programs for sustained time periods is not very good. Difficulties in recruitment and high dropout rates need to be overcome to improve the

success rate of future programs. We need to develop an information base on best practices in this area to improve future program performance in retaining participants for sufficient periods of time to bolster their literacy proficiencies, their formal educational attainment, their work experience, and their vocational competencies. How much will such a more comprehensive treatment be expected to cost? Can we justify the expenditure of such additional monies per participant?

Finally, there is a critical need for all future youth employment and training programs to provide substantive job opportunities for all participants while they are enrolled in the program. An employment component should be a mandatory feature of all such programs. There is no substitute for actual, paid work experience. High school students (especially those not going on to four year colleges) who work on a sustained basis (15-25 hours per week) during their senior year fare significantly better than their counterparts with no work experience not only during the first year or two following high school graduation, but even seven to nine years later.[35] Cumulative work experience during the late teens and early to mid-20's has a substantial effect on the weekly and annual earnings of young adults with no post-secondary education. This relationship is quite strong for both men and women. It is especially strong for young women who became mothers during their teenage years. High levels of early work experience among teen mothers substantially improve their employment experiences and their weekly earnings in their mid to late 20's. Work on an intensive, year-round basis must be viewed as an indispensable element of all future youth employment and training programs. Sporadic or short-term employment experiences, such as those in the conventional summer youth employment program, are typically not sufficient to favorably impact one's future labor

market outcomes. Education and training initiatives not tied to work during the program and to jobs immediately after the program do not appear to have any favorable impacts on the employability or earnings of young adults, especially those from economically disadvantaged backgrounds.

The ability of future programs to organize the private and public sectors to provide jobs for youth program participants during and after their enrollment will be a critical determinant of their success. Given the limited success of past efforts to replicate the Boston Compact's approach to organizing jobs for Boston high school students and graduates, this task likely will be a difficult one, depending on the anticipated scale of program efforts in local sites. A careful review of the features of existing and previous youth programs with solid job placement performance for out-of-school youth would seem desirable. Future sessions of the Levitan Center's out-of-school youth program task force should be devoted to this topic of job development, job placement, and job creation systems for out-of-school youth, including work experience, urban conservation corps, YouthBuild, and national service experiences. The need for improving job placement services for young single fathers and mothers in high poverty neighborhoods should be carefully assessed.[36]

Endnotes

[1] Our ending date for this population analysis is 1993 since the population data from 1994 onward are based on the use of the 1990 Census population controls. Since the national youth population was increased by nearly one million based on the 1990 population estimates, comparisons of the 1994 population estimates with those of earlier years are not strictly valid.

[2] For a review of population and labor force projections for various age groups between 1993 and 2005,

See: Howard N. Fullerton, "The 2005 Labor Force: Growing, but Slowly", Monthly Labor Review, November 1995, pp. 29-44.

[3] For a more detailed review of the national education goals and indicators for identifying progress in achieving them,

See: National Education Goals Panel, The National Education Goals Report: Building a Nation of Learners, U.S. Government Printing Office, Washington, D.C., 1994.

[4] For a review of earlier analyses of the effects of a GED on the earnings of Job Corps terminees in the second year following their exiting from the Center,

See: Charles Mallar, et al., The Lasting Impacts of Job Corps Participation, Youth Knowledge Development Report 3.4, U.S. Government Printing Office, Washington, D.C., May 1980.

[5] The experiences and outcomes of a demonstration program designed to improve the employability and earnings of young disadvantaged, Black and Hispanic male high school graduates and dropouts in the city of Boston are summarized in the following publication:

Andrew Sum and Robard Williams, An Assessment of the Effectiveness of the Career and Life United for Boston Youth Program (CLUB), Report Prepared for Action for Boston Community Development, Boston, 1994.

[6] A small portion of the decline in the estimated number of dropouts since 1990 is due to the change in the criteria used to identify dropouts. Beginning in 1994, the CPS survey dropped the question on major activity last week and only asked respondents to report their highest level of schooling completed. A school dropout in 1995 was defined as a person 17-21 years old who (a) either completed fewer than 12 years of school and had no GED certificate or completed 12 years of school but failed to obtain a diploma or a GED certificate and (b) was not enrolled in a school program at the time of the March CPS survey.

[7] Approximately 62% of high school graduates from the Class of 1994 were enrolled in college in the fall following graduation. For an overview of findings on the Fall 1994 enrollment status of high school graduates from the Class of 1994,

See: U.S. Department of Labor, Bureau of Labor Statistics, "College Enrollment and Work Activity of 1994 High School Graduates," Washington, D.C., June 1995.

[8] See: Andrew M. Sum, Literacy in the Labor Force, U.S. Department of Education, National Center for Education Statistics, Washington, D.C.,. 1996.

[9] For young persons living on their own or in households with others to whom they are not related, the identification of poverty status is based on the poverty line for a one person, non-elderly household.

[10] Subfamilies are placed into one of the two following categories by the U.S. Census Bureau: related subfamilies and unrelated subfamilies. Related subfamilies consist of subfamilies who are related to the householder of the primary family whose living quarters they share. Most young one-parent subfamilies live in the homes of their parents. High fractions of these young subfamilies have limited incomes that would have placed them in poverty or near poverty without the income of the primary family.

[11] See: U.S. Department of Justice, Bureau of Justice Statistics, Correctional Populations in the United States, Executive Summary, Washington, D.C., April 1995.

[12] Marc Maner and Tracy Huling, Young Black Americans and the Criminal Justice System: Five Years Later, The Sentencing Project, Washington, D.C., 1995.

[13] Andrew M. Sum and Neeta Fogg, High School Dropouts and Criminal Activities of Young Male Adults, Center for Labor Market Studies, Northeastern University, Boston, 1989.

[14] A part of the decline in the estimated employment rate of dropouts between 1989 and 1994 may have been attributable to the changing definition of dropouts between 1990 and 1995. In March 1990, the identification of dropouts was based on their years of schooling completed at the time of the survey and their major activity during the reference week. Some employed high school students working many hours during the reference week may have been classified as a dropout in 1990 since they did not cite "school" as their majority activity. Since they were employed, their inclusion in the dropout population would have raised their employment rate.

[15] Our initial year for this analysis of mean annual weeks worked is 1979 rather than 1973 since the March work experience survey did not collect continuous data on weeks or hours of work until 1975.

[16] Limited sample sizes for young Black out-of-school males preclude any refined subgroup analysis. On the March 1994 CPS public use tape, we only have observations for 80 Black male dropouts and approximately 100 male graduates. Multiple years of work experience data need to be combined to perform any sophisticated multivariate analysis for young Black men's employment experiences. Analyses of the NLS academic achievement test score data and NALS literacy data have revealed that the typical Black male dropout has very limited literacy proficiencies frequently falling in the bottom ten percent of the distribution.

[17] The CPI-UX1 index yields a rate of inflation of 102% between 1973 and 1982 while the CPI-U index would yield a 117% rate of

inflation. Real earnings of young adults in 1973 would be 7% higher under the CPI-U methodology.

[18] Since 1979, the CPS survey collects hourly and weekly wage data from one-fourth of the sample each month. The earnings data are obtained only for wage and salary workers; however, among young adults over 95% of the employed are wage and salary workers.

[19] The conversion factor for converting 1973 weekly earnings data into their constant 1994 dollar equivalent is 3.14 using the CPI-UX1 index for the entire nation.

[20] Of all full-time 17-21 year old workers in May 1973, approximately 80% were either high school dropouts or high school graduates, with no completed years of schooling beyond twelfth grade. By 1994, only 65% of all full-time 17-21 year old workers had completed 12 or fewer years of schooling.

[21] For a review of recent international evidence on trends in wage inequality using similar measures of wage inequality.

See: Richard B. Freeman and Lawrence F. Katz, "Rising Wage Inequality: The U.S. vs. Other Advanced Countries", in Working Under Different Rules, Russell Sage Foundation, New York, 1994, pp. 29-62.

[22] For updates of findings on wage inequality in the U.S. and New England through 1994.

See: Andrew Sum, Neal Fogg, Neeta Fogg, and Paul Harrington, The State of the American Dream in New England, The Massachusetts Institute for a New Commonwealth, Boston, January 1996.

[23] In May 1973, the weekly earnings of all full-time workers at the 90th percentile were $300 versus only $80 for those at the 10th percentile.

[24] These findings are based on the October CPS supplements which track the school enrollment status of all persons (3+) in the nation

at the time of the survey. The October survey also identifies all persons who graduated from high school in the prior calendar year; thus, we can estimate the fraction of new high school graduates who were enrolled in a two or four year educational institution at the time of the October survey.

[25] These estimates of the influence of changing real earnings position of young men on their marriage behavior are based on a shift-share analysis that analyzes the change in the marriage rates of 20-29 year old men over time as a function of changes in the distribution of men across annual earnings categories and changes in marriage rates within earnings categories over time.

[26] For a more detailed review of these trends in the well being of young families,

See: Andrew M. Sum, Cliff Johnson, and W. Neal Fogg, "Young Workers, Young Families, and Child Poverty" in Of Heart and Mind: Social Policy Essays in Honor of Sar A. Levitan, (Editors: Garth Mangum and Steven Mangum), W.E. Upjohn Institute, Kalamazoo, forthcoming, 1996.

[27] These costs pertain only to those young men who received services from their local SDA. A high fraction of young males assigned to JTPA received no services.

See: Howard S. Bloom, Larry L. Orr, et.al., The National JTPA Study Overview: Impacts, Benefits, and Costs of Title II A, Abt Associates, Bethesda, January 1994.

[28] See: U.S. General Accounting Office, Job Training Partnership Act: Long-Term Earnings and Employment Outcomes, U.S. Government Printing Office, Washington, D.C., November 1995.

[29] For a review of the impact evaluation findings of the Jobstart demonstration program containing four years of data on the employment and earnings experiences of participants and control group members,

See: George Cave, Hans Bos, Fred Doolittle, and Cyril Toussaint, Jobstart: Final Report on a Program for School Dropouts,

Manpower Demonstration Research Corporation, New York, 1993.

[30] While the number of 16-21 year old males employed full-time in 1995 was 404,000 or 7% higher than in 1991, the bulk of this gain was attributable to the shift to 1990 Census population controls in 1994. We estimate that the shift to the new population controls in 1994 raised the estimated size of the young adult male population by 6%; thus, nearly all (85%) of the estimated gain in full-time employment among young men between 1991 and 1995 was due to the higher population estimate in 1995.

[31] The median weekly earnings (in 1995 dollars) of all full-time wage and salary workers in 1991 were $481 versus an estimated median of $479 in 1995, a statistically insignificant decline of $2.

[32] See: Charles Mallar, et al., The Lasting Impacts of Job Corps Participation, Youth Knowledge Development Report 3.4, U.S. Government Printing Office, Washington, D.C., May 1980.

[33] These programs included Supported Work for School Dropouts, Jobs Corps, the Youth Incentive Entitlement Pilot Program (YIEPP), and the Alternative Youth Employment Strategies program (AYES).

See: Andrew M. Sum, Paul E. Harrington, and Neal Fogg, "Educational Attainment, Academic Ability, and the Employment and Earnings of Young Persons in the United States," Thrust: The Journal for Employment and Training Professionals, 1985, Vol. 1 and 2, pp. 1-36.

[34] See: Office of the Inspector General, The Job Corps Programs; Report of Student Outcomes, U.S. Government Printing, Washington, D.C., 1995.

[35] For recent evidence on the longer-term effects of high school work experience,

See: Christopher Ruhm, "The Extent and Consequences of High School Employment," Journal of Labor Research, Summer 1995, pp. 293-303.

[36] For a review of the problems in developing jobs for young unwed fathers in low income neighborhoods of selected central cities,

See: Bernardine H. Watson, Young Unwed Fathers Pilot Project: Initial Implementation Report, Public-Private Ventures, Philadelphia, 1992.

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