

# NLS Discussion Paper

**How the Federal Government Uses Data  
from the National Longitudinal Surveys**

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July 1991

Report: NLS 92-1

# **How the Federal Government Uses Data from the National Longitudinal Surveys (NLS)**

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**November 1990  
Revised: July 1991**

**This paper was originally prepared for presentation at the conference on the Australian Longitudinal Survey: Social and economic Policy Research held in Canberra, Australia, December 10-11, 1990 with the title, "Some Recent Governmental Uses of the National Longitudinal Surveys (NLS) in the USA". The author wishes to thank Marilyn Manser, John Ruser, and Jon Veum for helpful comments. Some of the tables and analyses presented in this paper were prepared by staff at the Center for Human Resource Research at Ohio State University under contract to the U.S. Department of Labor. The views expressed here are those of the author and do not necessarily represent the official position of the Bureau of Labor Statistics.**

This paper gives some recent examples of uses of how the U.S. Government uses National Longitudinal Surveys (NLS). These surveys were begun in the mid 1960's with the drawing of four samples: Young men who were 14-24 years old in 1966, young women who were 14-24 years old in 1968, older men who were 45-59 years old in 1966, and mature women who were 30-44 years old in 1967. Each sample originally had about 5,000 individuals with oversamples of blacks. In the early 1980's, the young men and older men surveys were discontinued.<sup>1</sup> The two women's surveys continue and are currently on a biannual interview cycle. The interviews and retention rates for each of these original cohorts are found in table.

In 1979, a new cohort was begun with a sample of over 12,000 young men and women who were 14-21 years of age on January 1, 1979. It included oversamples of blacks, Hispanics, economically disadvantaged whites, and youth in the military.<sup>2</sup> This survey, which we call the Youth Cohort, or NLSY, has been carried out by conducting interviews every year since it began. After twelve waves of interviewing, we had a retention rate of 89.9 percent of the original sample, probably the highest retention rate of any longitudinal survey after such a long time. Retention rates by year for the NLSY are found in table 2.

The NLS program was originally begun by the Office of Manpower Policy, Evaluation, and Research of the United States Department of Labor. This agency was combined with others to form the Employment and Training Administration in which the NLS was administered through 1986. The NLSY was started in order to evaluate the Comprehensive Employment and Training Act. Over time the NLS developed into a more general purpose data set for the study of labor market behavior. It was determined that it fit better into the mission of the Bureau of Labor Statistics (BLS) and was transferred to BLS in October 1986. In the 4 years BLS has overseen the NLS program, we have been developing a multi-dimensional approach toward regular use of the data.<sup>3</sup>

<sup>1</sup> In 1990 the National Institute on Aging funded a resurvey of the older men.

<sup>2</sup> The military oversample was discontinued after the 1984 survey. Present plans are to discontinue interviewing the economically disadvantaged white oversample. They were last interviewed in 1990.

<sup>3</sup> For more information on the NLS surveys, see the *NLS Handbook* (1990) or Manser, et. al. (1990).

In illustrating governmental uses of the NLS data in the United States, I will focus primarily on uses of the NLSY because it is most similar to the Australian Longitudinal Survey (ALS), for which it served as a model. The examples discussed in this paper come from a variety of uses made by the U.S. Government. Some were requested to help prepare specific legislation; some were used as general background for a body of legislation; some were special Government reports; and others were part of our extramural research program. In each example I hope to illustrate different uses of the data within the U.S. Excluding the extramural research, most of the uses do not involve sophisticated econometrics but provide insight into specific questions. I have attempted to choose examples which fully exploit the longitudinal nature of the data.

I have chosen six different areas of research to demonstrate use of the NLSY and discuss some of the findings. These areas are recent minimum wage legislation, wage paths of young people, the transition from school to work, work and the family, training, and the effects of military experience on post service success of low-aptitude recruits. Each of these areas is described in a separate section and discusses one or more studies.

## I. Minimum wage legislation

The minimum wage in the United States was raised to \$3.35 in January 1981. It was held fixed from that time until 1989. Several times over the intervening years, there were attempts to increase the minimum wage. At the same time, there were also attempts to create a special subminimum wage for youth. The latter was proposed under the premise that this made young people more attractive to businesses. After acquiring a job at subminimum wage, the youth would "have a foot in the door" and learn job skills which would allow him or her to advance in the labor market.

All of these attempts failed until a new law was passed in November 1989, amending the Fair Labor Standards Act. This law provided for an increase in the minimum wage to \$3.80 beginning April 1, 1990 and then another increase to \$4.25 beginning April 1, 1991. In addition the law provided for a "training" wage of \$3.85 or 85 percent of the prevailing minimum wage for any worker under 20 years old. This "training" wage could be paid for up to 6 months under certain conditions.

In response to specific requests regarding this legislation, the NLSY was used in two different ways. First, NLS staff attempted to examine the question, "Do minimum wage jobs provide a means of entry into the labor market, or are they essentially dead-end jobs?" although cross-sectional data from the Current Population Survey (CPS) can tell us how many people earn the minimum wage (or less), longitudinal data are required to see whether or not people get out of those minimum wage jobs.

Beginning with the 1981 NLSY survey, respondents were placed into one of three groups: Those who were not working at the time they were surveyed; those who were employed and earning the minimum wage or lower; and those who were employed and earning above the minimum wage. We then looked at flows among the three groups one year, 2 years, 5 years, and 6 years later. Table 3 presents the results. After 6 years, 60 percent of those who had been earning the minimum wage or less were earning above the minimum wage. The average wage of this group rose from \$2.84 in 1981 to \$7.31 in 1987, representing an increase of 157 percent compared to an increase of 65 percent over the same period for the group initially earning above the minimum wage. The general conclusion of this simple analysis is that those who enter the labor market in minimum wage jobs are not condemned to remain there.

The second set of NLSY information provided to those preparing the new minimum wage legislation related to the likely effects of a proposed "training" wage. In early consideration of the bill, it was proposed that a "training" wage be adopted but only apply to workers with less than a specified amount of cumulative work experience. Even though one could use retrospective questions in a cross-section survey to ascertain total lifetime work experience, more reliable information comes from a longitudinal survey, particularly one like the NLSY which collects job information in a work history format. Each job's starting and ending date is collected over time, giving us a fairly precise measure of total number of weeks worked over any length of time. The NLSY was appropriate to use for this exercise because people with small amounts of cumulative work experience tend to be young.

Using the entire NLSY sample in each year from 1981 to 1987, the total number of weeks ever worked was calculated. This was tabulated for the categories of 0-13 weeks, 14-26 weeks, and 27 weeks or more. The results are presented in table.<sup>4</sup>

As you would expect, the numbers in the lowest category fall over time and those in the highest category rise as these young men and women gain work experience. The two different cutoffs shown here (13 weeks and 26 weeks) were under consideration. In 1981 when the youths were 16-23, 6,757,000 had less than 26 weeks of work experience with all employers. By the time they were 22-29 in 1987, only 641,000, about 2 percent of the age group, still had less than 26 weeks of work experience. This is a surprisingly small number given that it includes women who began families and never entered the labor force.

One final consideration was to place an extra condition on receiving the "training" wage: A person could never have worked at a single job for more than 4 weeks. This eliminated a significant portion of those with little work experience. In fact, everyone with over 13 weeks of total work experience had held at least one job for over four weeks.

The final law passed with a "training" wage but without any restrictions concerning past cumulative work experience, perhaps because few individuals would have been included under such a provision. Undoubtedly, enforcement of such a provision would also be problematic.

## II. Wage paths of young people

Considerable attention has been given recently to the question of whether the income distribution is becoming more disparate. The premise is that most newly created jobs have been low-wage jobs. Most analysts are realizing that questions dealing with the income distribution require study using longitudinal data, at least as a complement to cross-sectional or aggregate data.

At a panel discussion on the topic, "What Are the Real Trends in Wages and Employment," Manser (1987) investigated a variety of issues using different BLS data. Of interest here is her use of three different NLS cohorts to compare earnings in the first 5 years out of school. She compared the men in the NLSY to those in the young men's cohort and the women in the NLSY to those in the young women's cohort. The earnings measure was taken as of the week preceding the interview. The sample was restricted to those not in school over the 5 years studied who were employed at the time of each survey. The earnings paths for men are shown in figure 1 and for women in figure 2. The data for young men refer

to the period 1967-71, and for young women, 1969-73. The data for the NLSY refer to 1980-84.<sup>4</sup> In both cases the youth from the later cohort fared worse. The earnings paths appear nearly parallel, especially for women; the earnings of the later cohort are always below the earnings of the earlier cohorts. We cannot conclude whether cohort size or general business conditions have caused the downward shift in the earnings profiles. Nor can we generalize to the entire career paths of these individuals or to those who stay in school longer. The results here, however, are consistent with findings from other data.

In a related example, the Ways and Means committee of the U.S. House of Representatives was preparing a variety of welfare legislation and sought information from the NLSY as background. NLS staff examined the wage paths in the early years out of school (1980-1984) for the NLSY sample by sex and graduation status. To be included in the sample, the individual could not be in school during the years studied and had to be employed during the survey week in each year. Tables 5a and 5b show the results for nominal and real weekly wages; tables 5c and 5d show the same for nominal and real hourly wages. The sample restrictions reduce sample sizes so that caution must be used in interpreting the results, especially for female dropouts.

Looking at table 5a showing nominal weekly wages, we see that males always earn more than females and graduates earn more than dropouts within each sex. The interesting finding is the slope of the wage paths. Taking percent changes from 1980 to 1984 for each group shows that wages grew similarly for male and female graduates (51.9 percent and 50.9 percent, respectively). Wages grew more slowly for dropouts but about the same for each sex (38.8 percent for male dropouts, 36.8 percent for female dropouts).<sup>5</sup>

There was no gain in female wages relative to men, a result also obtained in the Manser study. Graduating from high school made an important difference both in terms of starting wages and wage growth implying that completion of high school creates long term effects in relative wages.

Hourly wages show a similar story except that female dropouts lag behind all other groups

<sup>4</sup> Earnings were deflated using the CPI-U which is known to have some bias in the historical series.

<sup>5</sup> In all groups except female dropouts, wages rose monotonically. I have chosen to treat the 1983 number for female dropouts in table 5a as an aberration caused by the small sample size.

considerably. The other three groups show increases in real hourly wages of between 12.1 and 19.2 percent over the period but female dropouts actually show a 3-percent decline.

### III. Transition from school to work

In compiling part of the material on wage paths described above, NLS staff also investigated other aspects of youth leaving school for the Ways and Means committee. In particular, we presented information on labor force characteristics in the first 4 years after leaving school. Tables 6a, 6b, and 7 were included to show various averages and durations of employment and unemployment for school leavers by graduation status, race, and sex.

Consider high school dropouts first. Blacks both males and females had the highest average of weeks unemployed and the lowest average of weeks employed regardless of the duration since leaving school (except for Hispanic males in the second year). Hispanic and white males were fairly similar with respect to both unemployment and employment weeks. Hispanic females were similar to white females in terms of unemployment weeks, but they had significantly fewer weeks worked. Table 6b cumulates these first 4 years since leaving school. It shows that in the 4-year period black male high school dropouts spent 19.5 percent of those weeks unemployed, 54.5 percent employed, and 26.0 percent out of the labor force. Compared with black males, Hispanic males were less likely to be unemployed (16.5 percent), more likely to be employed (62.2 percent), and less likely to be out of the labor force (21.3 percent). White males spent the least time unemployed (15.5 percent), the most time employed (68.8 percent), and the least time out of the labor force (15.7 percent).

Black females differed even more dramatically from their Hispanic and white counterparts. They were more than twice as likely to experience unemployment and worked a considerably smaller percentage of weeks than Hispanic or white females.

As seen in both tables 6a and 6b, high school graduates had a better employment experience.<sup>6</sup> Looking at table 6a first, male high school graduates had about one-half as many unemployment weeks as high school dropouts. Male graduates

<sup>6</sup> These are individuals who terminated their education after graduating from high school.

also worked about 10 more weeks each year than dropouts. Both the unemployment and employment differences between graduates and dropouts applied similarly to within-race comparisons. Female high school graduates also had less unemployment than dropouts, but the difference was smaller than for males. The difference in weeks worked, however, was substantially larger than for males by over 15 weeks. Again, qualitatively the results are similar within the race groups.

Table 6b reveals a larger race differential for high school graduates than for dropouts, particularly for males. Black male graduates spent 1.7 times as many weeks unemployed as did white male graduates and 1.9 times as many weeks as did Hispanic male graduates. They also spent considerably more time out of the labor force and worked fewer weeks. Hispanic and white male graduates had looked similar cumulative employment and unemployment experience. Black female graduates also experienced much greater unemployment, worked fewer weeks and spent more time out of the labor force than either Hispanics or whites. Unlike males, Hispanic female graduates worked less, had less unemployment, and were out of the labor force more than white female graduates.

Table 7 shows the distribution of unemployment weeks for the same 4-year period by graduation status and sex. In the first year after leaving school, 63.2 percent of the males and 57.5 percent of the females experienced no unemployment. An additional 12.8 percent of the males and 15.9 percent of the females had between 1 and 4 weeks of unemployment. Approximately three-quarters of these youth thus had less than 4 weeks of unemployment during the first year after leaving school. At the other extreme, 2.3 percent of the males and 1.9 percent of the females were unemployed most of the year, between 40 and 52 weeks. The distribution remains relatively stable in each of the subsequent 3 years,<sup>7</sup> although for females there is a marked increase in the proportion experiencing no unemployment.<sup>8</sup>

The distribution of unemployment differs significantly by high school graduation status. In

<sup>7</sup> This is found despite the business cycle changes which occurred during the 1980-1984 period.

<sup>8</sup> This is not due to women spending more time out of the labor force and registering zero weeks of unemployment. Summing the columns in average weeks unemployed and average weeks employed in table 6a to get average total weeks in the labor force shows a very stable rate over the 4 year period.

the first year after leaving school, only 44.7 percent of male high school dropouts had zero weeks of unemployment; this figure was 68.5 percent for the male graduates. The difference was somewhat less pronounced for females, 46.8 percent for dropouts and 60.4 percent for graduates. The difference at the other extreme is observed only for males. Of the male dropouts 4.6 percent were unemployed over 40 weeks, but of the male graduates only 1.6 percent experienced such sustained unemployment. For females the figures for dropouts and graduates are almost identical (1.7 percent and 1.6 percent, respectively). As with the overall population, the distribution is relatively stable for dropouts and for graduates over the entire 4-year period. Females with zero unemployment weeks, however, increased relatively for both dropouts and graduates.

In a study funded by BLS, Cameron, Gritz, and MaCurdy (1989) looked at the effects of unemployment insurance benefits on the unemployment of youths. Using the NLSY they found that eligibility of young men for unemployment insurance increases with both age and education and that use of unemployment insurance increases with age but not necessarily with more education. For young women eligibility increases with education but not with respect to age. Use patterns for young women are similar to those of young men except for the lowest education group in which there is no apparent relationship between the insured rate and age. Overall, men have higher eligibility and rates of use than women.

Using a variety of measures, Cameron, et. al. estimate the effects that increasing the amount of weekly benefits and the number of weeks of eligibility has on the lengths of nonemployment spells and the amount of these spells reported as spent in unemployment. By looking across States, they were able to use the differences in State Unemployment Insurance (UI) programs to look at behavioral differences.

Their findings imply that weekly benefit amounts paid by programs have essentially no effect on the durations of nonemployment spells. On the other hand, the number of weeks of eligibility offered does increase the length of time spent between jobs. This effect, though, is not uniform. The number of weeks of eligibility does not influence the short durations of either nonemployment or unemployment, but it leads to an expansion of the longer durations with the longest durations being stretched out the most. In partic-

ular, an extension of weeks of eligibility from 26 to 39 generates only about a 1-week lengthening of unemployment duration for the median individual, but unemployment lengthens by as much as 8 weeks for those persons experiencing the longest durations.

The results for men and women are similar with only slight exception: Although weeks of eligibility matter for both sexes, changes in the amount of benefits have slight effect for men but no effect for women. In other respects UI policies influence women's experience between jobs in nonemployment and unemployment in the same pattern as with men, although magnitudes of the various effects differ.

#### IV. Work and the family

The relationship between work and family life has become one of the most important areas in current policy planning. Considerable attention has been given lately in the United States to a variety of legislation dealing with parental leave, child care, and related subjects. It is therefore important to understand the behavior of women in coordinating their work and family life and how policy changes will influence that behavior. To better understand the issues involved, BLS has sponsored several studies.

In one of the studies, Leibowitz, Waite, and others (see Leibowitz, Klerman, Waite, and Wittsberger (1989b) and also Desai, Leibowitz, and Waite (1989)) investigated young women's labor force participation and employment during pregnancy and following birth. The objective of this study was to analyze changes in women's labor force behavior during pregnancy and after the birth of a first child, and in particular, to examine the timing of labor-force exit during pregnancy; the timing of return to work after childbirth; and the effects of age, education, occupation, race, and ethnicity on departure and reentry times. Because the NLSY began as a sample of teenagers, the mothers tend to be young and therefore, the results may not be representative of women who do not have their first child until later.

Using the NLSY, the authors could combine the fertility histories with the work histories to determine when a woman left work during her pregnancy and when she returned to work after giving birth. Table 8 shows the unweighted combinations of when young mothers left work and when they returned to work. The rows of this

table show the week during pregnancy that the woman left work, divided by trimester. The last row for the 39th week represents women who work up until the week of the delivery. Most women who left early during the pregnancy did not return to work for a considerable period of time, if ever. Over 28 percent of all women in the sample did not leave work before the week of delivery. Women who worked this far into their pregnancy tended to return to work very quickly.

Table 8 indicates that approximately one-fifth of the sample took no more than 1-week off from work. This does not seem realistic and is probably a result of the way the questions are worded in the survey. As in all labor force surveys, time on paid vacation or paid sick leave is considered as time employed; therefore, a woman is employed though she is actually on maternity leave.<sup>9</sup> In 1983, the NLSY investigated this specifically. Each woman was asked whether her employer offered maternity leave, the date at which she began maternity leave, and the age of her child when she returned to work. Using these questions, Leibowitz, et.al. were able to look at women who had births in 1983 and appear to have worked continuously through childbirth. Only one-quarter of these women report that their maternity leave began with delivery. Three-quarters of these women appear to have worked into the week of delivery, yet obviously began their maternity leave earlier.

Similar results are found for work after delivery in the 1983 data. Only 9 percent of the women who appeared to be employed in the week before delivery actually returned to work in the week following delivery as compared to nearly 74 percent found by merging the event histories. Nevertheless, the 1983 data show that these women do return to work relatively quickly. Eighty-two percent returned to work within the first 3 months.

Using multivariate hazard models, Leibowitz, et. al. found that opportunity costs play the strongest role in predicting labor supply near childbirth. Women with more education and higher wages remain in the labor force later into pregnancy and return to work sooner after delivery.

Women who were not married at the time of the child's birth were more likely to withdraw from the labor force in the first 6 months of pregnancy and to return to employment more slowly after the

<sup>9</sup> Beginning in 1988, respondents were asked about paid leave taken because of the birth of a child. This will permit separating time at work from time on paid leave for employed women.

birth. This may be due to the receipt of Aid to Families with Dependent Children (AFDC). AFDC acts as an income support for single women in all States but for married women in only about half of the States.

The age of the woman affects her withdrawal from and return to the labor force. For example, teenagers are significantly less likely to work until the end of pregnancy or to return to work immediately after childbirth. Women age 20-27 are less likely to withdraw from the labor force in the last trimester of pregnancy and are more likely to return to work shortly after giving birth.

Education plays an important role in this story. College education reduces the chances that work committed women leave their job in the first two trimesters of pregnancy, but has no such effect for women with low work-commitment.<sup>10</sup> College-educated women are no more likely to return to work during the first quarter after giving birth than are women with a high school diploma; however, the college women are more likely to return to work in the 3-to 11-month period after the birth of their first child (given that they did not return earlier).

In general, the various covariates have effects only in the first two trimesters. By the third trimester, only the wage effect is statistically significant. This also holds true after the delivery. Women who remain at work into the third trimester are primarily influenced by their wage.

In the hazard model, Leibowitz, et. al. again find a strong correlation between late withdrawal in pregnancy and early reentry after birth, controlling for observable factors. This holds true even when excluding the women who appear to have continuous employment at the time of childbirth.

To analyze how occupational characteristics influence labor supply during pregnancy and after delivery, Desai, et. al. linked occupational characteristics derived from the Current Population Survey and the Dictionary of Occupational Titles to the NLSY data. Holding personal characteristics constant, they found that women in jobs which require less training or more physical strength were more likely to quit work early. Women whose occupations require higher levels of specific vocational preparation were more likely to continue

<sup>10</sup> Work commitment is determined by the answer to the question, "What would you like to be doing when you are 35?" Those who responded "working" were deemed to have a high degree of work commitment; those who responded otherwise, a low degree of work commitment.

working during the first two trimesters of pregnancy and to return to work within the first quarter following the birth.

Attributes of the occupation, such as larger numbers of part-year workers and greater percentages of co-workers who are mothers, lead women with low work commitment to return to work earlier.<sup>11</sup> Women who are more work-oriented are not influenced by these factors; wage rates and education are the primary factors predicting their timing for return to work.

In another study funded by BLS, Falaris and Peters (1989) examined whether women are influenced in their choice of timing of their first child by the size of their cohort. Their theoretical approach allows women to choose when to have their first birth and when to return to work to mitigate the effects of the size of their own cohort on their wage profiles. If large cohorts depress wages, then a woman born into such a cohort can choose to have a child early and enter the labor force later with a smaller cohort. If she is born into a small cohort, she is likely to work early in her adult life, having her first child later. This sort of adjustment allows them to enter the labor market when wage profiles are to their greatest advantage.

Falaris and Peters estimated hazard rate models using data from the mature women, young women, and NLSY. Pooling these three data sets provided them with information on women born during different phases of the demographic cycle: 1918-37, 1942-53, and 1957-64. These periods represent a baby boom, bust, and boom, respectively. Falaris and Peters also controlled for the woman's choice of schooling, which also can be affected by the size of the cohort. In support of their theory, women who were born during the upswing of the demographic cycle were found to have their first birth earlier and to return to work more quickly than would women who were born during the downswing of the demographic cycle.

As part of a bigger study on support for adolescent mothers, the Congressional Budget Office (CBO) (1990), an agency of the U.S. Congress, used the NLSY to study welfare patterns among adolescent mothers, focusing on the likelihood that adolescent mothers will start and stop receiving

<sup>11</sup> Desai, Leibowitz, and Waite use characteristics of the occupation. It would be more appropriate to use the attributes of the job with a given employer. Although these data are not available in the NLSY, it is not clear that occupation is a useful measure.



AFDC<sup>12</sup> benefits within the first few years after giving birth. They attempted to investigate only the characteristics associated with different patterns of welfare receipt, not the causes of different welfare experiences. Some of these characteristics are no doubt correlated with the causes, but it is important not to interpret them in this way. Because only teenagers are examined in this study, the results may not generalize to older mothers.

Table 9 from the CBO report shows the cumulative entrance rates onto AFDC accounting for the mother's marital status, age at first birth, and race. Twenty-eight percent of all adolescent mothers receive AFDC within the first year after giving birth. Nearly one-half are receiving it within 5 years after giving birth. Mothers aged 15-17 receive AFDC with much higher frequency than mothers aged 18-19, and blacks receive AFDC with much higher frequency than whites; however, it is marital status that makes the key difference. Unmarried women are three times as likely to receive AFDC as married women.<sup>13</sup> When age and race are interacted with marital status, the differences for these two variables diminish or even disappear. This reflects the different marriage patterns in these groups. In particular, young black mothers are much less likely to be married than young white mothers (11 percent compared to 67 percent).

Table 10 shows the cumulative exit rates from AFDC for teenage mothers by age of the mother at first birth, marital status, and race. In this table an exit is considered to be a period of 3 months or more not receiving AFDC. Periods of 1 or 2 months were not considered as exits because these often result simply from the family's failure to comply with program rules. The sample used in this table includes only those receiving AFDC and thus reflects a smaller sample size than table 9. Because some of the cell sizes get small, these numbers should be considered more indicative than precise.

Nearly one-third of all adolescent mothers leave AFDC within 6 months after they first receive it; three-quarters leave within 4 years. Once again the pattern differs by age, marital status, and race. Married women are more likely to exit AFDC than unmarried women; mothers 18-19 more likely than those 15-17; and whites more

likely than blacks. In this case marital status does not fully mitigate the differences for age or race.

There are two possible explanations of why "older" teenage mothers tend to leave AFDC more quickly. One is that they are more likely to find jobs because they are older. The younger mothers would find jobs as they grow older, inducing longer welfare spells. The second explanation is the difference in education leading to the difference in ability to become self-sufficient. In the NLSY sample used here, 21 percent of younger single teenage mothers getting AFDC had graduated from high school or had GED's within roughly 2 years after the birth of the child, compared with 58 percent of the group who were 18-19 when they became mothers.

The racial difference appears to be somewhat affected by the different marriage patterns of blacks and whites; however, these patterns do not explain the difference entirely. Another possible factor accounting for this difference may be the birth of additional children. Although white adolescent mothers were more likely than black adolescent mothers to have additional children within a few years after first giving birth, they were also more likely to get married before having those children. Among young mothers who remained single during the survey, blacks were twice as likely as whites to have second children within 4 years after first giving birth.

Table 11 shows rates of receipt of AFDC for adolescent mothers in each 1-year period for 4 years after giving birth. This combines the patterns of entry and exit from AFDC examined previously. Though some differences appear by age and race, these are mostly accounted for by marital status.

There is a fairly constant proportion of adolescent mothers receiving AFDC over time. The welfare population, however, is not static. There is considerable mobility onto and off of AFDC results. During any given period many young mothers leave the program and others enter or reenter. Despite this mobility, the proportion on AFDC remains fairly stable. This result demonstrates the greater usefulness of longitudinal data as compared to cross-sectional data in understanding welfare receipt. A repeated cross-section showing AFDC would reveal this roughly constant proportion and would mask the underlying movements onto and off the program.

## V. Training

<sup>12</sup> Aid to Families with Dependent Children (AFDC) is one of the largest welfare programs in the United States.

<sup>13</sup> Married women are eligible for AFDC in approximately only half of the States.

Training the nation's labor force has always been an important issue. Recently it has risen to the forefront as critical. Many people believe that the entrants into today's workforce are not equipped with the skills required. BLS has formed a task force to investigate what we know about training and to make recommendations on what additional data are needed to better understand the role training plays in the development of the workforce. The NLSY contributed to this task force in several ways. The NLSY has been used to examine separately several issues dealing with private sector training.

BLS has funded several studies which are currently in progress. One study by Lynch (1990) has produced some interesting results. She uses the NLSY to analyze the determinants of the probability of receiving different types of private sector training and the effect of training on the wages and wage growth of young workers who are not college graduates. Issues addressed include the relative importance of training and tenure for wage determination and the rate of return to company-provided training programs compared to the rate of return to training received outside the firm from private sector vendors and schooling. Lynch also investigated the portability of company training from one employer to another and the existence of differentials in the returns to training by union status, race, and sex.

Other studies of training have suffered from a variety of data limitations. Some of these are the lack of complete employment, training, and schooling histories on individuals in the various surveys; difficulties in measuring the amount of private sector training the individual received; and difficulties in distinguishing firm-specific from general training. Through 1987, the NLSY only allowed for measuring formal spells of training of 1 month or more<sup>14</sup>, but it does allow reconstruction of individuals' entire formal training histories (for programs of 1 month or more) from the moment they enter the labor market, including the occurrence and duration of each training spell. The NLSY data are also useful in distinguishing among different sources of private sector training including company-provided training, training from private sector vendors, and apprenticeships.

Lynch finds that private sector training plays a significant role in determining wages and wage growth for young workers in the United States.

<sup>14</sup> Beginning in 1988, all training programs of any duration were captured.

who do not graduate from college (approximately 70 percent). Women and nonwhites are much less likely to receive training from their employer, either in a company training program or in an apprenticeship program. Workers with higher educational attainment have a higher probability of acquiring off-the-job training and apprenticeships, but there is little effect of post secondary school education on receipt of firm provided, on-the-job training.

In estimating of the effect of training on wages, Lynch finds that all training increases wages significantly, including off-the-job training from proprietary institutions. The impact of the training variables is larger than the impact of tenure on wages. Even though tenure still plays a role in wage determination, this implies that equations estimated without training variables are allowing the tenure variable to capture some of the effect of training.

Finally, Lynch provides evidence that on-the-job training furnished by an employer is usually specific to the firm. There appears to be no effect of training with a previous employer on current wages.

Leigh (1989), in a study for the U.S. General Accounting Office, used the NLSY to examine similar issues dealing with training. He also investigated who received different kinds of training and how these types of training affected wages and earnings.

Table 12 shows his unweighted tabulations of receipt of at least one training program from 1979-86, disaggregated by type of training, race, and sex. From this table we see that more people obtain training in proprietary schools than from other sources, and only a small percentage are in apprenticeship programs. Females of all races receive more training from proprietary schools than males, whereas the differences by sex are not substantial for any other source. The patterns by race are mixed. Whites generally get more training of any type than either blacks or Hispanics except that Hispanic males receive more training from proprietary schools than either white or black males.

BLS produced data for its task force on training which focused exclusively on company training programs. These are presented as tables 13a-c. The data in these tables differ from Leigh's in that they come from different sample restrictions and are weighted, yielding somewhat higher estimates of the amount of training received for all groups except Hispanic females. These tables

show that over 9 percent of the sample completed at least one company training program in the 1979-86 period. Consistent with Leigh's finding, the BLS data show that whites receive the most company training, followed by blacks and Hispanics. Also consistent are the results by sex. Men receive more company training than women for all races.

These tables also present breakdowns for education and job for which trained. Results for the former show receipt of company training increases monotonically with amount of education for both sexes. In examining job for which trained, different patterns emerge for men versus women. Clerical positions are the jobs for which most trained overall, and this type of training is much more prevalent for women. The second highest for women is professional/technical. Managerial and skilled manual occupations are significantly lower. Men, on the other hand, are more evenly represented in each type of training with professional/technical and skilled manual more prevalent than managerial and clerical. The highest category is "other," a conglomeration of all occupational categories not represented by the four shown.

In addition to table 12 presented above, Leigh uses more sophisticated econometric procedures to study various training issues. He finds some results that contrast with the study by Lynch. Consistent with Lynch (and other studies), he finds that women are less likely than men to gain access to apprenticeship programs and more likely to participate in proprietary school programs. In contrast, however, he notes women are no less likely than men to participate in company-sponsored training. He also does not find that Hispanics or blacks are less likely to receive training.

Leigh's study brings to a light a correlation of education with acquisition of training similar to that discovered by Lynch but stronger. More educated workers are found to be more likely to receive training from all types of providers. Although Lynch found this relationship for company-provided training to apply only to high school graduates, Leigh finds the likelihood of receiving this type of training to increase even further with additional schooling. This is consistent with the BLS data.

In his investigation of how training affects wages and earnings, Leigh shows that company training and apprenticeships both lead to an increase wages and earnings. Proprietary schools appear to increase earnings but not wages (Lynch found an increase for wages). Leigh suggests that

this type of training works more to increase employment stability than to raise wages.

The differences in findings for these two studies can be explained primarily by two differences in the measures and data used. First, Leigh uses dummy variables for the presence of each type of training received, and Lynch uses the actual number of weeks spent in each type of training. Second, Leigh uses data through 1987, but Lynch only uses data through 1983. Because of the ages of the sample at that time (18-25), the cell sizes for college graduates are small. As a result, Lynch does not include college graduates in her study. Table 13a shows a strong correlation between the amount of education and the receipt of company training. In fact, adding additional years of data to Lynch's data set and including college graduates make her results more similar to Leigh's. The only exception is the effect of proprietary training on wages which Lynch still finds to be strongly positive. More investigation would be needed to understand why these results differ.

## VI. Effects of military experience

The decline in size of the cohorts reaching the age of eligibility for military service has created considerable pressure to fill military personnel requirements by accepting lower-aptitude recruits. In addition, there have been suggestions that the Department of Defense (DOD) might help train tomorrow's workforce by admitting disadvantaged and low aptitude youth. Providing these youth with training and discipline, it is suggested, will better enable them to participate in the labor force.

In a 1985 study sponsored by the Department of Defense, the Human Resources Research Organization (HumRRO) (1985) examined the demographic differences between low aptitude military and nonmilitary youth. The DOD followed up on this study by again sponsoring HumRRO (1989) to study the effects of military experience on the post-service lives of low aptitude recruits.

The Armed Services Vocational Aptitude Battery (ASVAB) is administered to all recruits before entering military service. A subcomponent of this exam is the Armed Forces Qualification Test (AFQT), which comprises verbal and mathematical sections. The percentiles are grouped into AFQT categories I-V (with category III divided into two parts, IIIA and IIIB). Category I is the highest, covering the 93rd-99th percentiles. Category V is the lowest, including the 1st-9th per-

centiles. Each of the Armed Services determines its own standards. In general, individuals within categories I-III A (50 percent and above) are actively sought. Category IV recruits are accepted only sparingly (limits are actually placed on their enlistment), and those in category V are excluded by law.

Only twice has the military accepted a large number of category IV recruits (10th-30th percentiles). The first was in the 1960's during Project 100,000. In response to Lyndon Johnson's "War on Poverty" and because of the increasing personnel requirements of the Vietnam War, Project 100,000 was launched. Its primary goal was to provide a means of upward mobility for the economically and educationally disadvantaged by admitting annually 100,000 low-aptitude and medically remedial men into the military. More than 320,000 men enlisted under Project 100,000. These men had scored in AFQT category IV.

The second time low-aptitude men were admitted into the Armed Forces in large numbers came in the period from January 1976 through September 1980. Due to a miscalibration in the newly designed ASVAB exam, there was an inflating of scores for lower ability recruits. Many individuals thought to be of average aptitude were, in fact, in category IV. By the time the errors were detected and new, corrected forms of the ASVAB were introduced in October 1980, over 300,000 category IV's had been incorrectly admitted into the military. Unlike Project 100,000 this more closely resembles a natural experiment.

After discovering the errors in the ASVAB norms, the Department of Defense needed a large, nationally representative sample of military-aged youth to whom they could administer the test to create new norms. In the second wave of the NLSY (1980), DOD funded administering the ASVAB to the entire NLSY sample (15-23 years old in 1980). Respondents received \$25 for their participation, and local testing sites were established. Approximately 94 percent of the total baseline sample completed the ASVAB, providing DOD the sample it required to renorm the test. The results of that effort created the norms that have been used by the Armed Services for the last decade.<sup>15</sup>

To determine the effect of serving in the military, HumRRO located and surveyed samples of the Project 100,000 youth and the low-aptitude

youth admitted during the period of use of the faulty ASVAB. The NLS young men were used as a comparison group for the Project 100,000 men of the 1960's, and the NLSY was used for comparison with the group admitted in the late 1970's. Weighting schemes were derived to account for demographic differences in the two veteran samples and the two NLS nonveteran samples. Analyses were carried out to determine if having served in the military provided the veterans advantages over their nonveteran low aptitude counterparts. Aptitude for the NLS young men was determined by using school records and creating percentiles for the respondents.

The comparison of the Project 100,000 veterans, many of whom likely served in Vietnam, with the nonveterans of the NLS young men showed that these low-aptitude veterans did not fare better than their nonveteran counterparts. Those who never served in the military appear to be better off in terms of employment status, educational attainment, and income. Veterans were more likely to be unemployed and to have an average level of education significantly below the nonveterans. Income differences between the two groups showed nonveterans with incomes of \$5,000 to \$7,000 higher, depending on the sources included. Veterans were less likely to be married and more likely to be divorced than nonveterans.<sup>16</sup>

The lower-aptitude military group from the 1970's also did not fare better than their nonveteran counterparts in the NLSY. In this case, they were similar in their employment status (see table 14), occupational category, and average income (see table 15). The veterans had acquired significantly less formal education, however. Veterans had higher marriage rates than nonveterans but also had higher divorce rates.

In conclusion, the HumRRO report states: "In terms of the central question of interest in this study, therefore, the results are unequivocal. These data provide no evidence to support the hypothesis that military service offers a 'leg up' to low-aptitude and disadvantaged youth as they seek to overcome their cognitive and skill deficits and compete successfully in the civilian world."

<sup>15</sup> In addition, researchers have benefited greatly by the presence of a standardized IQ type measure for nearly the entire NLSY sample.

<sup>16</sup> Fifty-six percent of the Project 100,000 veterans served in Vietnam. It is not clear what effects this service may have had on these individuals. Such an experience may have negated the positive effects of the military.

## VII. Conclusion

This paper has demonstrated several different ways in which the U.S. Government has used the National Longitudinal Surveys, focusing primarily on the youth cohort. These uses represent work on a wide variety of topics. Although a large number of findings have been presented, the emphasis is intended to be on the uses themselves. They vary from small, quick-turnaround tables presented in support of specific legislation; more complex ta

bles to provide background material for preparing various legislation; reports on specific topics; and long-term extramural studies on issues of continuing importance.

The National Longitudinal Surveys have been used extensively within and outside the government. Over time the data become even richer as we follow people through different stages of the life-cycle. Undoubtedly, the NLS will continue to prove valuable to researchers and policy-makers alike.

## References

- Cameron, A. Colin, R. Mark Gritz and Thomas MaCurdy. (1989) *The Effects of Unemployment Compensation on the Unemployment of Youths*. Chicago, IL: NORC. Final report submitted to the Department of Labor, contract J-9-J-7-0092.
- Congress of the United States, Congressional Budget Office. (1990). "Services of Support for Adolescent Mothers."
- Desai, Sonalde, Arleen Leibowitz and Linda J. Waite. (1989) "Women's Labor Force Participation Before and After Their First Birth: The Effect of Occupational Characteristics and Work Commitment." Working Draft No. WD-4460-NICHD/DOL. The Rand Corporation.
- Falaris, Evengelos M. and H. Elizabeth Peters. (1989) *Responses of Female Labor Supply and Fertility to the Demographic Cycle*. Final Report submitted to the Department of Labor, grant E-9-J-8-0091.
- Laurence, Janice H., Jane G. Heisey, Barbara Means, and Brian K. Waters. (1985). *Demographic Comparison of Low-Aptitude Military and Nonmilitary Youth*. Final report No.#85-1. Alexandria, VA.: Human Resources Research Organization (HumRRO).
- Laurence, Janice H., Peter F. Ramsberger, and Monica A. Gribben. (1989). *Effects of Military Experience on the Past-Service Lives of Low-Aptitude Recruits: Project 100,000 and the ASVAB Misnorming*. Final report No. 89-29. Alexandria, VA. Human Resources Research Organization (HumRRO).
- Leibowitz, Arleen and Linda Waite. (1989a) *Women's Employment During Pregnancy and After Childbirth*. Final report submitted to the Department of Labor, contract J-9-J-7-0091.
- Leibowitz, Arleen, Jacob Klerman, Linda Waite, and Christine Witsberger. (1989b) "Women's Employment During Pregnancy and Following Birth." Working Draft No. WD-4451-DOL. The Rand Corporation.
- Leigh, Duane E. (1989) *What Kinds of Training Work' for Noncollege Bound Youth?* Report prepared for U.S. General Accounting Office.
- Lynch, Lisa M. (1990) "Private Sector Training and the Earnings of Young Workers." Unpublished paper. M.I.T.Sloan School of Management.
- Manser, Marilyn E. (1987) Remarks for a panel on "What are the Real Trends in Wages and Employment." Unpublished paper. U.S. Bureau of Labor Statistics.
- Manser, Marilyn, Michael Pergamit, and Wanda Bland Peterson. (1990) "National Longitudinal Surveys: Development and Uses" *Monthly Labor Review* (July).
- NLS Handbook*. (1991) Center for Human Resource Research. The Ohio State University.
- U.S. Bureau of Labor Statistics. (1990) "Education and Training of American Workers." Paper prepared for the OECD National Experts Group on Training Statistics.

## References

- Cameron, A. Colin, R. Mark Gritz and Thomas MaCurdy. (1989) *The Effects of Unemployment Compensation on the Unemployment of Youths*. Chicago, IL: NORC. Final report submitted to the Department of Labor, contract J-9-J-7-0092.
- Congress of the United States, Congressional Budget Office. (1990). "Services of Support for Adolescent Mothers."
- Desai, Sonalde, Arleen Leibowitz and Linda J. Waite. (1989) "Women's Labor Force Participation Before and After Their First Birth: The Effect of Occupational Characteristics and Work Commitment." Working Draft No. WD-4460-NICHD/DOL. The Rand Corporation.
- Falaris, Evengelos M. and H. Elizabeth Peters. (1989) *Responses of Female Labor Supply and Fertility to the Demographic Cycle*. Final Report submitted to the Department of Labor, grant E-9-J-8-0091.
- Laurence, Janice H., Jane G. Heisey, Barbara Means, and Brian K. Waters. (1985). *Demographic Comparison of Low-Aptitude Military and Nonmilitary Youth*. Final report No.#85-1. Alexandria, VA.: Human Resources Research Organization (HumRRO).
- Laurence, Janice H., Peter F. Ramsberger, and Monica A. Gribben. (1989). *Effects of Military Experience on the Past-Service Lives of Low-Aptitude Recruits: Project 100,000 and the ASVAB Misnorming*. Final report No. 89-29. Alexandria, VA. Human Resources Research Organization (HumRRO).
- Leibowitz, Arleen and Linda Waite. (1989a) *Women's Employment During Pregnancy and After Childbirth*. Final report submitted to the Department of Labor, contract J-9-J-7-0091.
- Leibowitz, Arleen, Jacob Klerman, Linda Waite, and Christine Witsberger. (1989b) "Women's Employment During Pregnancy and Following Birth." Working Draft No. WD-4451-DOL. The Rand Corporation.
- Leigh, Duane E. (1989) *What Kinds of Training Work for Noncollege Bound Youth?* Report prepared for U.S. General Accounting Office.
- Lynch, Lisa M. (1990) "Private Sector Training and the Earnings of Young Workers." Unpublished paper. M.I.T.Sloan School of Management.
- Manser, Marilyn E. (1987) Remarks for a panel on "What are the Real Trends in Wages and Employment." Unpublished paper. U.S. Bureau of Labor Statistics.
- Manser, Marilyn, Michael Pergamit, and Wanda Bland Peterson. (1990) "National Longitudinal Surveys: Development and Uses" *Monthly Labor Review* (July).
- NLS Handbook*. (1991) Center for Human Resource Research. The Ohio State University.
- U.S. Bureau of Labor Statistics. (1990) "Education and Training of American Workers." Paper prepared for the OECD National Experts Group on Training Statistics.

Table 1

Interview Schedules and Retention Rates<sup>a</sup>: Original Four Cohorts

ORIGINAL FOUR COHORTS												
Older Men 45-59 in 1966				Mature Women 30-44 in 1967			Young Men 14-24 in 1966			Young Women 14-24 in 1968		
	Type of Interview	Total	Retention Rate	Type of Interview	Total	Retention Rate	Type of Interview	Total	Retention Rate	Type of Interview	Total	Retention Rate
1966	Personal	5034 <sup>b</sup>	100.0	----			Personal	5225	100.0	----		
1967	Personal	4758	94.4	Personal	5083	100.0	Personal	4790	91.7	----		
1968	Mail	4662	92.6	Mail	4910	96.6	Personal	4318	82.6	Personal	5159	100.0
1969	Personal	4395	87.3	Personal	4712	92.7	Personal	4033	77.2	Personal	4930	95.6
1970	----			----			Personal	3993	76.4	Personal	4766	92.4
1971	Personal	4189	83.2	Personal	4575	90.0	Personal	3987	76.3	Personal	4714	91.4
1972	----			Personal	4471	88.0	----			Personal	4625	89.6
1973	Telephone	3965	78.8	----			Telephone	4014	76.8	Personal	4424	85.8
1974	----			Telephone	4322	85.0	----			----		
1975	Telephone	3746	74.4	----			Telephone	3977	76.1	Telephone	4243	82.2
1976	Personal	3501	69.5	Telephone	4172	82.1	Personal	3695	70.7	----		
1977	----			Personal	3964	78.0	----			Telephone	4108	79.6
1978	Telephone	3233	64.2	----			Telephone	3538	67.7	Personal	3902	75.6
1979	----			Telephone	3812	75.0	----			----		
1980	Telephone	3015	59.9	----			Telephone	3438	65.8	Telephone	3801	73.7
1981	Personal	2846	56.5	Telephone	3677	72.3	Personal	3398	64.9	----		
1982	----			Personal	3542	69.7	Discontinued			Telephone	3650	70.8
1983	Telephone	2647	52.6	----						Personal	3547	68.7
1984				Telephone	3422	67.3				----		
1985				----						Telephone	3720	72.1
1986				Telephone	3335	65.6				----		
1987				Personal	3241	63.7				Telephone	3639	70.5
1988				----						Personal	3508	68.0
1989				Personal	3104	61.1						
1990	Personal	2091 <sup>c</sup>	41.6									
1991										Personal		
1992				Personal								

(a) Retention rate is defined as the percent of the base year respondents who were interviewed in any given survey year. Included in the calculations are deceased and institutionalized respondents as well as those serving in the military.

(b) Data are available on a total of 5,020 respondents. For a complete explanation, see the section on sample representativeness in this book.

(c) In addition to the 2,091 surviving members of the original sample interviewed during 1990, interviews were also completed with 2,206 widows or next-of-kin of deceased respondents.

Source: Table 2 from NLS Handbook 1991



Table 2

## Interview Schedules and Retention Rates: NLSY

NLSY Youth 14-21 on January 1, 1979							
Year	Type of Interview	Civilian Sample		Military Sample		Total Sample	
		Total	Retention Rate <sup>a</sup>	Total	Retention Rate <sup>a</sup>	Total	Retention Rate <sup>a</sup>
1979	Personal	11406	100.0	1280	100.0	12,686	100.0
1980	Personal	10948	96.0	1193	93.2	12,141	95.7
1981	Personal	11000	96.4	1195	93.4	12,195	96.1
1982	Personal	10912	95.7	1211	94.6	12,123	95.6
1983	Personal	10995	96.4	1226	95.8	12,221	96.3
1984	Personal	10854	95.2	1215	94.9	12,069	95.1
1985	Personal	10708	93.9	186 <sup>b</sup>	92.5	10,894 <sup>c</sup>	93.9
1986	Personal	10472	91.8	183	91.1	10,655	91.8
1987	Telephone	10306	90.4	179	89.1	10,485	90.3
1988	Personal	10291	90.2	175	87.1	10,465	90.2
1989	Personal	10424	91.4	181	90.0	10,605	91.4
1990	Personal	10259	89.9	183	91.0	10,442	90.0

<sup>a</sup> Retention rate is defined as the percent of the base year respondents within each sample type who were interviewed in any given survey year.

<sup>b</sup> A total of 201 military respondents were retained from the original military sample of 1,280.

<sup>c</sup> The total number of civilian and military respondents in the NLSY at the initiation of the 1985 survey was 11,607.

Source: Table 6 from NLS Handbook 1991

Table 3

Wage Rate Transitions Following the Job Held During Survey Week 1981  
Persons 16-23 in 1981; Data From NLS-Youth Yearly Surveys 1981-1987

Wage During Survey Week 1981 Relative to Existing Minimum

	Not Working In Survey Week 1981	Job Was At or Below the Minimum Wage	Job Was Above the Minimum Wage
<u>Attributes of First Job Held</u>			
<u>During a Survey Week</u>			
Percent in Wage Category	41.2	32.6	26.2
Number of Persons in Wage Category <sup>1</sup>	11,860,555	9,389,311	7,555,961
Average Wage for Job by Category	N/A	2.84	5.34
Percent Learning Skill Useful in Getting a Better Job	N/A	71	76
<u>Subsequent<sup>2</sup> Wage Rates</u>			
<u>Relative to Initial Minimum Wage</u>			
<u>One Year Later</u>			
Percent Not Working	64	23	19
Percent At or Below Minimum	15	41	9
Percent Above Minimum	21	36	72
Average Wage of Those Working	4.70	4.27	5.89
<u>Two Years Later</u>			
Percent Not Working	55	23	21
Percent At or Below Minimum	17	35	12
Percent Above Minimum	28	42	67
Average Wage of Those Working	4.93	4.82	6.32
<u>Five Years Later</u>			
Percent Not Working	35	19	14
Percent At or Below Minimum	15	23	11
Percent Above Minimum	50	58	75
Average Wage of Those Working	6.50	6.50	8.10
<u>Six Years Later</u>			
Percent Not Working	31	16	14
Percent At or Below Minimum	14	24	13
Percent Above Minimum	55	60	73
Average Wage of Those Working	7.31	7.31	8.84

- Notes: 1. Based upon sampling weights.  
2. Calculations made only when person responded in the indicated survey week.  
3. All wage rates measured in current dollars.

Table 4

## Number of Persons Age 14-21 as of January 1, 1979

Year (as of Jan. 1)	Age of Sample Members	Weeks Ever Worked to Date	Held Job ≥ 4 Weeks	Never Held Job ≥ 4 Weeks	Total
1981	16 - 23	0 - 13	1,660,000	3,193,000	4,853,000
		14 - 26	1,904,000	--	1,904,000
		27 or more	26,383,000	--	26,383,000
1982	17 - 24	0 - 13	1,223,000	1,692,000	2,915,000
		14 - 26	1,405,000	--	1,405,000
		27 or more	28,822,000	--	28,822,000
1983	18 - 25	0 - 13	913,000	1,001,000	1,914,000
		14 - 26	1,030,000	--	1,030,000
		27 or more	30,198,000	--	30,198,000
1984	19 - 26	0 - 13	639,000	583,000	1,222,000
		14 - 26	777,000	--	777,000
		27 or more	31,142,000	--	31,142,000
1985	20 - 27	0 - 13	452,000	341,000	793,000
		14 - 26	521,000	--	521,000
		27 or more	31,827,000	--	31,827,000
1986	21 - 28	0 - 13	325,000	220,000	545,000
		14 - 26	349,000	--	349,000
		27 or more	32,246,000	--	32,246,000
1987	22 - 29	0 - 13	257,000	97,000	354,000
		14 - 26	287,000	--	287,000
		27 or more	32,500,000	--	32,500,000

\*\*\* Source: National Longitudinal Surveys of Labor Market Experience - Youth Cohort, Bureau of Labor Statistics.

Table 5a

## Nominal Average Weekly Wages for Youth\*

## Early Years Out of High School

## By Sex and Graduation Status

(Weighted)

YEAR	MALE GRADUATES	MALE DROPOUTS	FEMALE GRADUATES	FEMALE DROPOUTS
1980	234.20 (86.06)	198.82 (72.23)	156.76 (62.12)	114.69 (36.36)
1981	257.36 (100.83)	210.61 (77.31)	185.38 (66.96)	128.05 (51.43)
1982	297.05 (119.67)	241.97 (90.99)	207.89 (74.56)	152.01 (47.21)
1983	320.64 (124.59)	242.95 (87.02)	224.29 (77.71)	215.02 (186.89)
1984	355.64 (136.59)	275.98 (92.75)	236.56 (90.42)	156.86 (60.06)
SAMPLE SIZE	361	115	374	29

\*Notes: Wages are for the week in which the individual was surveyed. Standard errors are in parentheses.

The sample includes (1) youths aged 14 to 21 at the time of the 1979 interview who were (a) not enrolled in school in 1979-1984; and (b) employed during the survey week in each year 1979-1984; and (2) youths aged 15 to 22 at the time of the 1980 interview who were (a) enrolled in school in 1979, (b) not enrolled in school in 1980-1984, and (c) employed in the survey week in each year 1980-1984.

Source: National Longitudinal Survey of Labor Market Experience-Youth; conducted by the Center for Human Resource Research at the Ohio State University for the Bureau of Labor Statistics.

Table 5b

## Real Average Weekly Wages for Youth\*

## Early Years Out of High School

By Sex and Graduation Status  
(Weighted)

(Deflated by Average Annual CPI-U, 1967=100)

YEAR	MALE GRADUATES	MALE DROPOUTS	FEMALE GRADUATES	FEMALE DROPOUTS
1980	94.89	80.56	63.52	46.47
1981	94.48	77.32	68.05	47.01
1982	102.75	83.70	71.91	52.58
1983	107.45	81.42	75.16	72.06
1984	114.32	88.71	76.04	50.42
SAMPLE SIZE	361	115	374	29

\*Notes: Wages and hours are for the week in which the individual was surveyed.

The sample includes (1) youths aged 14 to 21 at the time of the 1979 interview who were (a) not enrolled in school in 1979-1984; and (b) employed during the survey week in each year 1979-1984; and (2) youths aged 15 to 22 at the time of the 1980 interview who were (a) enrolled in school in 1979, (b) not enrolled in school in 1980-1984, and (c) employed in the survey week in each year 1980-1984.

Source: National Longitudinal Survey of Labor Market Experience-Youth; conducted by the Center for Human Resource Research at the Ohio State University for the Bureau of Labor Statistics.

Table 5c

## Nominal Average Hourly Wages for Youth\*

## Early Years Out of High School

## By Sex and Graduation Status

(Weighted)

YEAR	MALE GRADUATES	MALE DROPOUTS	FEMALE GRADUATES	FEMALE DROPOUTS
1980	5.64 (2.12)	4.68 (1.45)	4.17 (1.40)	3.30 (0.91)
1981	6.29 (2.53)	5.00 (1.59)	4.88 (1.60)	3.46 (0.95)
1982	7.14 (2.78)	5.69 (2.11)	5.34 (1.79)	3.78 (1.08)
1983	7.72 (2.97)	5.72 (1.99)	5.96 (2.24)	5.46 (4.63)
1984	8.48 (3.79)	6.64 (2.27)	6.16 (2.19)	4.04 (1.36)
SAMPLE SIZE	361	115	374	29

\*Notes: Wages and hours are for the week in which the individual was surveyed. Standard errors are in parentheses.

The sample includes (1) youths aged 14 to 21 at the time of the 1979 interview who were (a) not enrolled in school in 1979-1984; and (b) employed during the survey week in each year 1979-1984; and (2) youths aged 15 to 22 at the time of the 1980 interview who were (a) enrolled in school in 1979, (b) not enrolled in school in 1980-1984, and (c) employed in the survey week in each year 1980-1984.

Source: National Longitudinal Survey of Labor Market Experience-Youth; conducted by the Center for Human Resource Research at the Ohio State University for the Bureau of Labor Statistics.

Table 5d

## Real Average Hourly Wages for Youth\*

## Early Years Out of High School

By Sex and Graduation Status  
(Weighted)

(Deflated by Average Annual CPI-U, 1967=100)

YEAR	MALE GRADUATES	MALE DROPOUTS	FEMALE GRADUATES	FEMALE DROPOUTS
1980	2.29	1.90	1.69	1.34
1981	2.31	1.84	1.79	1.27
1982	2.47	1.97	1.85	1.31
1983	2.59	1.92	2.00	1.83
1984	2.73	2.13	1.98	1.30
SAMPLE SIZE	361	115	374	29

\*Notes: Wages and hours are for the week in which the individual was surveyed.

The sample includes (1) youths aged 14 to 21 at the time of the 1979 interview who were (a) not enrolled in school in 1979-1984; and (b) employed during the survey week in each year 1979-1984; and (2) youths aged 15 to 22 at the time of the 1980 interview who were (a) enrolled in school in 1979, (b) not enrolled in school in 1980-1984, and (c) employed in the survey week in each year 1980-1984.

Source: National Longitudinal Survey of Labor Market Experience-Youth; conducted by the Center for Human Resource Research at the Ohio State University for the Bureau of Labor Statistics.

Table 6a

Labor Force Characteristics in the First Four Years After Leaving School of 16- to 19- Year Olds Who Left School Between 1977 and 1981 by High School Completion, Race and Sex

(weighted)

	At Least One Week of Unemployment (%)		At Least Six Months of Unemployment (%)		At Least One Week of Employment (excluding military weeks) (%)		At Least Six Months of Employment (excluding military weeks) (%)		At Least One Week of Employment (including military weeks) (%)		At Least Six Weeks of Employment (including military weeks) (%)		Average Weeks Unemployed		Average Weeks Employed (excluding military weeks)		Average Weeks Employed (including military weeks)		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
<b>H.S. dropout</b>																			
<b>First year</b>																			
Total	55.3	53.2	11.8	5.2	91.3	82.4	74.5	51.3	96.0	83.5	80.8	52.4	8.4	5.6	30.0	19.4	33.0	19.9	
Hispanic	62.7	33.9	9.0	0.0	93.6	60.0	77.4	31.4	96.7	62.5	81.5	34.0	8.3	2.2	29.9	13.5	31.8	14.5	
Black	58.5	57.1	18.6	12.6	89.0	71.5	66.1	32.5	96.7	71.5	77.5	32.5	11.2	8.7	22.6	9.4	27.5	9.4	
Other	53.2	56.7	10.4	4.0	91.6	88.6	76.5	58.5	95.7	89.1	81.7	59.7	7.5	5.3	32.3	22.6	34.9	23.2	
<b>Second year</b>																			
Total	54.1	49.8	14.4	5.7	85.9	80.9	72.4	52.5	96.3	82.0	82.2	53.6	8.6	5.5	27.7	21.5	32.9	22.0	
Hispanic	60.7	35.5	16.0	8.3	91.4	68.2	74.1	50.7	95.6	70.8	78.2	53.3	11.1	5.1	27.3	19.2	29.5	20.1	
Black	53.1	62.4	19.3	13.1	80.5	76.7	63.2	35.5	91.9	76.7	74.6	35.5	10.4	9.4	20.9	10.1	26.9	10.1	
Other	53.3	48.5	12.6	3.5	86.6	83.6	74.9	57.0	97.7	84.8	85.1	58.1	7.7	4.5	29.8	24.6	35.2	25.2	
<b>Third year</b>																			
Total	52.5	43.1	10.4	4.4	90.6	77.5	74.6	52.9	97.2	77.5	85.3	53.7	8.4	4.5	29.9	21.2	34.8	21.6	
Hispanic	47.5	30.2	5.0	1.4	89.7	66.6	75.1	40.2	93.8	66.6	80.3	40.2	6.4	2.5	32.1	18.6	34.6	18.6	
Black	59.2	55.4	13.2	12.1	87.3	63.8	61.9	27.7	96.9	63.8	72.7	27.7	9.6	8.1	23.8	7.8	29.3	7.8	
Other	52.0	41.6	10.4	2.8	91.8	82.2	78.3	60.7	97.9	82.2	89.8	61.9	8.3	3.9	31.4	24.9	36.5	25.4	
<b>Fourth year</b>																			
Total	50.8	43.5	12.1	6.7	92.3	76.0	78.0	52.9	95.5	76.0	84.9	52.9	8.8	5.5	31.6	30.6	34.7	20.6	
Hispanic	47.5	35.8	12.2	8.3	91.4	68.4	81.1	42.0	93.6	68.4	86.4	42.0	8.5	5.1	31.1	16.0	33.4	16.0	
Black	58.6	59.2	14.0	17.4	89.8	77.9	69.8	42.3	93.0	77.9	75.6	42.3	9.3	9.5	36.5	11.4	29.7	11.4	
Other	49.1	40.7	11.6	3.9	93.1	76.5	80.0	56.9	96.5	76.5	87.4	56.9	8.7	4.5	33.2	23.5	36.4	23.5	

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Table 6a continued

	At Least One Week of Unemployment (%)		At Least Six Months of Unemployment (%)		At Least One Week of Employment (excluding military weeks) (%)		At Least Six Months of Employment (excluding military weeks) (%)		At Least One Week of Employment (including military weeks) (%)		At Least Six Weeks of Employment (including military weeks) (%)		Average Weeks Unemployed		Average Weeks Employed (excluding military weeks)		Average Weeks Employed (including military weeks)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<b>H.S. graduate</b>																		
<b>First year Total</b>	31.5	39.6	4.2	4.5	93.6	94.9	87.1	83.4	99.1	95.3	95.0	83.8	3.8	4.4	39.8	36.8	43.5	37.0
Hispanic	32.6	41.4	5.5	1.7	93.1	89.4	83.0	66.7	98.0	90.1	92.4	69.4	4.8	3.5	37.4	30.8	42.2	32.1
Black	47.1	53.8	5.6	11.5	87.8	90.5	74.5	65.3	98.5	92.7	90.8	67.4	6.6	8.0	30.2	25.6	38.0	26.8
Other	29.2	37.5	3.9	3.7	94.4	95.9	89.1	86.8	99.3	95.9	95.7	86.9	3.4	4.0	41.3	38.7	44.3	38.7
<b>Second Year Total</b>	32.9	36.7	5.7	3.5	91.8	94.0	86.6	84.0	99.2	94.6	95.6	84.9	4.1	3.8	39.3	37.4	43.7	37.9
Hispanic	29.6	39.0	2.9	3.5	88.9	93.0	80.8	74.8	99.1	95.7	92.8	77.5	2.6	3.3	38.6	32.9	44.8	34.3
Black	41.9	47.9	10.3	11.4	76.8	91.0	66.9	71.1	98.0	93.6	89.7	74.2	6.7	7.7	27.5	28.4	39.1	30.0
Other	31.9	34.9	5.3	2.4	94.1	94.5	89.6	86.3	99.4	94.7	96.5	86.8	3.8	3.3	41.0	39.0	44.2	39.2
<b>Third Year Total</b>	33.7	27.7	6.2	2.7	93.2	92.0	87.6	79.0	99.2	92.8	96.0	79.9	4.9	2.9	39.4	37.6	43.5	38.1
Hispanic	29.5	22.2	5.4	2.1	88.2	83.8	82.5	68.9	99.0	86.5	95.2	71.6	3.9	1.8	37.6	33.9	44.1	35.3
Black	41.7	44.1	9.2	9.1	78.2	86.8	67.6	70.8	97.6	89.4	91.5	73.8	7.3	6.6	27.3	29.4	39.3	31.0
Other	32.8	25.5	5.9	1.8	95.6	93.1	90.7	80.7	99.5	93.6	96.6	81.2	4.7	2.4	41.2	39.0	44.0	39.2
<b>Fourth year Total</b>	30.3	27.5	3.9	3.9	93.8	90.5	88.9	76.7	98.9	91.2	96.0	77.4	3.9	3.1	41.0	36.3	44.6	36.6
Hispanic	29.6	13.3	2.4	0.0	91.8	90.6	89.4	79.5	99.1	93.2	99.1	80.3	2.5	1.2	41.8	37.9	46.9	38.7
Black	36.6	41.0	7.4	8.4	77.2	88.6	70.9	71.0	97.1	90.5	92.6	73.1	5.7	5.9	30.3	30.2	41.4	31.3
Other	29.5	26.1	3.4	3.4	96.2	90.8	91.4	77.4	99.2	91.3	96.3	77.9	3.7	2.8	42.5	37.1	44.9	37.3

<b>Sample Size:</b>	<b>High School Dropouts</b>		<b>High School Graduates</b>	
	Unweighted	Weighted	Unweighted	Weighted
<b>Male</b>	308	627665	697	2205626
Hispanic	71	72894	95	103160
Black	91	126585	178	257833
Other	146	428186	424	1844633
<b>Female</b>	289	639606	799	2339201
Hispanic	61	59021	86	92076
Black	80	115055	201	287304
Other	148	465530	492	1959821

SOURCE: National Longitudinal Survey of Labor Market Experience-Youth; conducted by the Center for Human Resource Research at the Ohio State University for the Bureau of Labor Statistics.

Table 6b

Percent of Weeks Spent Employed, Unemployed, and Out-of-the-Labor Force in First Four Years After Leaving School for 16-19 Year Olds Who Left School Between 1977-1981 by Race, Sex, and High School Completion

	Percent of Weeks Unemployed		Percent of Weeks Employed		Percent of Weeks Out of Labor Force	
	Male	Female	Male	Female	Male	Female
<b>H.S. dropout</b>						
Hispanic	16.5	7.2	62.2	33.3	21.3	59.5
Black	19.5	17.2	54.5	18.6	26.0	64.2
Other	15.5	8.8	68.8	46.8	15.7	44.4
<b>H.S. graduate</b>						
Hispanic	6.6	4.7	85.6	67.5	7.8	27.8
Black	12.6	13.6	75.9	57.3	11.5	29.1
Other	7.5	6.0	85.3	74.2	7.2	19.8

SOURCE: National Longitudinal Survey of Labor Market Experience-Youth; conducted by the Center for Human Resource Research at the Ohio State University for the Bureau of Labor Statistics.

Table 7

Distribution of Unemployment Weeks in Each of the First Four Years Since Leaving School for 16-19 Year Olds Who Left School, by Sex and by High School Graduation Status

(weighted)

	Weeks of Unemployment					
	0	1-4	5-13	14-26	27-39	40-52
<b>All</b>						
<b>First year</b>						
Male	63.2	12.8	10.4	7.8	3.5	2.3
Female	57.5	15.9	15.3	7.1	2.4	1.9
<b>Second year</b>						
Male	62.4	12.1	12.0	6.5	4.8	2.2
Female	60.5	14.7	14.7	6.3	2.4	1.3
<b>Third year</b>						
Male	62.2	9.5	11.4	10.0	3.8	3.1
Female	69.0	13.1	9.8	5.3	1.4	1.4
<b>Fourth year</b>						
Male	65.1	8.9	11.5	9.2	2.4	2.7
Female	69.1	11.8	10.1	5.1	2.5	1.7
<b>H.S. dropouts</b>						
<b>First year</b>						
Male	44.7	16.6	14.8	12.3	7.0	4.6
Female	46.8	19.2	17.3	9.5	2.6	1.7
<b>Second year</b>						
Male	50.2	10.4	18.4	6.9	8.1	6.0
Female	50.2	16.2	21.5	6.6	4.0	1.5
<b>Third year</b>						
Male	47.5	11.0	16.0	15.2	6.4	3.9
Female	56.9	16.3	15.8	7.3	2.3	1.3
<b>Fourth year</b>						
Male	49.2	7.7	18.8	12.6	15.7	6.0
Female	56.5	13.9	14.9	8.2	4.8	1.7

(continued on next page)

Table 7 (continued)

	Weeks of Unemployment					
	0	1-4	5-13	14-26	27-39	40-52
<b>H.S. graduates</b>						
<b>First year</b>						
Male	68.5	11.7	9.1	6.5	2.5	1.6
Female	60.4	14.2	14.8	6.4	2.3	1.9
<b>Second year</b>						
Male	67.1	11.4	10.2	6.4	3.8	1.1
Female	63.3	14.3	12.8	6.3	2.0	1.3
<b>Third year</b>						
Male	66.3	9.1	10.1	8.5	3.1	2.9
Female	72.3	12.2	8.1	4.7	1.2	1.4
<b>Fourth year</b>						
Male	69.7	9.3	9.5	8.3	1.5	1.9
Female	72.5	11.2	8.8	3.9	1.7	1.7

Sample size	Unweighted	Weighted
Male	1005	2833290
H.S. dropouts	308	627665
H.S. graduates	697	2205625
Female	1068	2978806
H.S. dropouts	289	639605
H.S. graduates	779	2339201

SOURCE: National Longitudinal Survey of Labor Market Experience-Youth; conducted by the Center for Human Resource Research at the Ohio State University for the Bureau of Labor Statistics.

Table 8

Week of Leaving Work In Pregnancy and Week of Return to Work After Deliverly

Week Left in Pregnancy		Week of Return to Work Following Birth				Total
		Within First Week	2-13	14-52	53-367	
1-13	N	0	35	79	130	244
	Row%	0.00	14.34	32.38	53.28	100.00
	Col%	0.00	12.46	24.76	38.12	20.44
14-26	N	0	31	79	90	200
	Row%	0.00	15.50	39.50	45.00	100.00
	Col%	0.00	11.03	24.76	26.39	16.75
27-38	N	2	164	133	111	410
	Row%	0.49	40.00	32.44	27.07	100.00
	Col%	0.79	58.36	41.69	32.55	34.34
39	N	251	51	28	10	340
	Row%	73.82	15.00	8.24	2.94	100.00
	Col%	99.21	18.15	8.78	2.93	28.48
Total		253	281	319	341	1194
		21.19	23.53	26.72	28.56	100.00
		100.00	100.00	100.00	100.00	100.00

Source: Table 2 from Leibowitz, et. al. (1989b)

Table 9

**CUMULATIVE AFDC ENTRANCE RATES FOR  
ADOLESCENT MOTHERS, BY MOTHER'S MARITAL  
STATUS AND AGE AT FIRST BIRTH, AND RACE  
(In percent)**

Characteristic of Mother	Cumulative Proportion Who Started Receiving AFDC <sup>a</sup>		
	By Birth of First Child <sup>b</sup>	By 12 Months After Birth of First Child	By 60 Months After Birth of First Child
All	7	28	49
Marital Status at Birth of First Child			
Married	2	7	24
Unmarried	13	50	77
Age at Birth of First Child			
All mothers			
15 to 17	5	30	58
18 to 19	9	26	43
Mothers who were unmarried when they first gave birth			
15 to 17	8	47	77
18 to 19	19	53	76
Race			
All mothers			
White	7	22	39
Black	9	44	76
Mothers who were unmarried when they first gave birth			
White	17	53	72
Black	10	49	84

SOURCE: Congressional Budget Office tabulations of data from the National Longitudinal Survey of Youth (1979-1985).

NOTES: Entrance rates for the Aid to Families with Dependent Children program refer to the proportion of adolescent mothers who first started receiving AFDC payments in the specified period. Adolescent mothers are defined as all women who first gave birth when they were between the ages of 15 and 19. The results for married adolescent mothers of different ages and races are not included separately because of the small sample size.

These findings are based on relatively small samples and therefore should be taken as indicative of general patterns of behavior rather than as precise estimates, particularly for the period furthest from the birth.

a. These estimates reflect the total number of adolescent mothers who entered the program for the first time, regardless of their subsequent exits from or reentries into the program. Thus the values do not relate to the proportion receiving benefits in any particular period.

b. States have the option of providing assistance to pregnant women, beginning in the sixth month of medically verified pregnancies.

Table 10

**CUMULATIVE AFDC EXIT RATES FOR ADOLESCENT  
MOTHERS, BY MOTHER'S MARITAL STATUS AND AGE AT  
FIRST BIRTH, AND RACE (In percent)**

Characteristic of Mother	Cumulative Proportion Who Left AFDC <sup>a</sup>		
	Within 6 Months After First AFDC Receipt	Within 12 Months After First AFDC Receipt	Within 48 Months After First AFDC Receipt
All	31	49	76
Marital Status at Birth of First Child			
Married	60	69	94
Unmarried	23	43	71
Age at Birth of First Child			
All mothers			
15 to 17	30	45	70
18 to 19	32	52	82
Mothers who were unmarried when they first gave birth			
15 to 17	23	39	66
18 to 19	24	48	76
Race			
All mothers			
White	40	57	82
Black	19	40	66
Mothers who were unmarried when they first gave birth			
White	27	48	77
Black	19	40	66

SOURCE: Congressional Budget Office tabulations of data from the National Longitudinal Survey of Youth (1979-1985).

NOTES: Exit rates for the Aid to Families with Dependent Children program refer to the proportion of adolescent mothers receiving AFDC payments who left the program for the first time within the specified period. Adolescent mothers are defined as all women who first gave birth when they were between the ages of 15 and 19. The results for married adolescent mothers of different ages and races are not included separately because of the small sample size.

These findings are based on relatively small samples and therefore should be taken as indicative of general patterns of behavior rather than as precise estimates, particularly for the period furthest from the birth.

a. These estimates reflect the total number of recipients who left the program for the first time, regardless of subsequent reentries or reexits. Thus the values do not relate to the proportion receiving benefits in any particular period.

Table 11

ADOLESCENT MOTHERS RECEIVING AFDC (In percent)				
Characteristic of Mother	Time Between Birth and Receipt of AFDC (Months)			
	0 to 12	13 to 24	25 to 36	37 to 48
All	27	28	29	30
Marital Status at Birth of First Child				
Married	7	8	12	14
Unmarried	48	49	50	49
Age at Birth of First Child				
All mothers				
15 to 17	29	32	39	38
18 to 19	26	25	23	24
Mothers who were unmarried when they first gave birth				
15 to 17	45	49	57	52
18 to 19	51	49	42	44
Race				
All mothers				
White	21	21	22	23
Black	42	46	50	47
Mothers who were unmarried when they first gave birth				
White	52	49	45	47
Black	46	51	56	52

SOURCE: Congressional Budget Office tabulations of data from the National Longitudinal Survey of Youth (1979-1985).

NOTES: Adolescent mothers are defined as all women who first gave birth when they were between the ages of 15 and 19.

These findings are based on relatively small samples and therefore should be taken as indicative of general patterns of behavior rather than as precise estimates, particularly for the period furthest from the birth.

Source: Table 15 from Congressional Budget Office (1990)



Table 12

Percentages of Respondents Who Completed at Least One Training Program,  
by Provider, Race/Ethnicity, and Sex

Provider	Whites		Blacks		Hispanics		All
	Males	Females	Males	Females	Males	Females	
Proprietary school: <sup>a</sup>	<u>8.7</u>	<u>13.9</u>	<u>7.4</u>	<u>12.8</u>	<u>9.5</u>	<u>11.4</u>	<u>10.7</u>
Bus. coll.	0.6	2.8	1.2	2.8	1.4	1.6	1.7
Nurses prog.	0.2	2.2	0.1	2.6	0.2	1.4	1.1
Vo-tech	6.9	8.3	5.2	6.1	7.4	6.0	7.0
Barber/beauty	0.2	0.7	0.2	1.0	0.2	2.2	0.6
Flight school	0.4	0.1	0.2	-	0.3	-	0.2
Correspondence	0.7	0.6	1.2	1.0	0.3	0.8	0.8
Apprenticeship	1.5	0.6	0.9	0.2	1.2	1.0	1.0
Company prog.	6.6	7.0	4.6	5.4	5.7	4.8	6.1
Other	3.6	4.2	2.1	2.9	2.6	3.0	3.4
No. of obs.	2,349	2,083	954	882	661	502	7,431

<sup>a</sup>Subtotals do not add to totals because respondents may have completed a training program in more than one of the categories of proprietary school programs.

Source: Table 1 from Leigh (1989)

Table 13a

## NLS TABLES ON PRIVATE SECTOR TRAINING

Office of Research and Evaluation

Bureau of Labor Statistics

February 1990

Percent of NLSY Sample Completing At Least One Company  
Training Program, 1979-1986

Total	9.12	(0.30)
Race		
Whites	9.81	(0.39)
Blacks	6.87	(0.51)
Hispanics	5.78	(0.58)
Job Trained For		
Professional/Technical	2.77	(0.09)
Managerial	1.36	(0.05)
Clerical	6.35	(0.21)
Skilled Manual	1.67	(0.06)
Other	2.66	(0.09)
Sex		
Male	10.50	(0.45)
Female	7.70	(0.40)
Education		
< 12	3.05	(0.41)
12	8.61	(0.43)
13-15	11.15	(0.72)
16+	12.06	(0.82)

---

Notes: Categories may not add to total because of rounding, missing values, multiple programs for a person, or multiple responses. Numbers in parentheses are estimated standard errors assuming homogeneity within categories.

Source: Unpublished BLS data from the National Longitudinal Survey - Youth Cohort

Table 13b

## NLS TABLES ON PRIVATE SECTOR TRAINING

Office of Research and Evaluation

Bureau of Labor Statistics

February 1990

Percent of NLSY Sample Completing At Least One Company  
Training Program, 1979-1986

Men

Total		10.50	(0.45)
Race			
	Whites	11.29	(0.58)
	Blacks	7.74	(0.76)
	Hispanics	7.11	(0.92)
Job Trained For			
	Professional/Technical	3.10	(0.14)
	Managerial	2.41	(0.11)
	Clerical	2.15	(0.10)
	Skilled Manual	3.04	(0.14)
	Other	3.30	(0.15)
Education			
	< 12	3.39	(0.59)
	12	10.69	(0.65)
	13-15	12.71	(1.13)
	16+	13.10	(1.19)

---

Note: Categories may not add to total because of rounding, missing values, multiple programs for a person, or multiple responses. Numbers in parentheses are estimated standard errors assuming homogeneity within categories.

Source: Unpublished BLS data from the National Longitudinal Survey - Youth Cohort

Table 13c

NLS TABLES ON PRIVATE SECTOR TRAINING  
Office of Research and Evaluation  
Bureau of Labor Statistics  
February 1990

Percent of NLSY Sample Completing At Least One Company  
Training Program, 1979-1986  
Women

Total		7.70	(0.40)
Race			
	Whites	8.28	(0.52)
	Blacks	5.99	(0.67)
	Hispanics	4.31	(0.68)
Job Trained For			
	Professional/Technical	2.43	(0.13)
	Managerial	1.19	(0.06)
	Clerical	3.79	(0.20)
	Skilled Manual	0.26	(0.01)
	Other	2.00	(0.11)
Education			
	< 12	2.59	(0.55)
	12	6.47	(0.54)
	13-15	9.77	(0.91)
	16+	10.98	(1.12)

---

Notes: Categories may not add to total because of rounding, missing values, multiple programs for a person, or multiple responses. Numbers in parentheses are estimated standard errors assuming homogeneity within categories.

Source: Unpublished BLS data from the National Longitudinal Survey - Youth Cohort

Table 14

## Employment Status for Potentially Ineligible and NLS 1979 Samples

Sample	Employment Status						Total	
	Full-Time		Part-Time		Not Working		N <sup>a</sup>	%
	N <sup>a</sup>	%	N <sup>a</sup>	%	N <sup>a</sup>	%		
<u>Veteran</u>								
PI Separated <sup>b</sup>	218	77.0	26	9.3	39	13.8	283	100
PI Separated and Active Duty	243	78.8	26	8.5	39	12.6	308	100
<u>Nonveteran</u>								
NLS 1979 in 1985	670	77.2	45	5.2	153	17.6	868	100

## Chi-Square Statistics

	Effective Sample		
	Full-Time	Part-Time	Not Working
PI Separated	165	19	29
PI Separated and Active Duty	185	19	29
NLS 1979 in 1985	495	34	111
<u>PI Separated vs. NLS</u>			
Working vs. Not Working			1.6 <sup>ns</sup>
Full-Time vs. Part-Time vs. Not Working			5.1 <sup>ns</sup>
Full-Time vs. Part-Time			2.6*
Full-Time vs. Part-Time and Not Working			.04 <sup>ns</sup>
<u>PI Separated and Active Duty vs. NLS</u>			
Working vs. Not Working			3.5*
Full-Time vs. Part-Time vs. Not Working			5.5*
Full-Time vs. Part-Time			1.6 <sup>ns</sup>
Full-Time vs. Part-Time and Not Working			0.5 <sup>ns</sup>

<sup>a</sup> Weighted frequency produced by demographically equating the military and civilian samples. The percentages may not sum to 100 due to the effects of weighting and rounding.

<sup>b</sup> Includes those serving in the reserves.

\* =  $p < .10$

ns = Not Significant.

Source: Table 63 from Laurence, et. al. (1989)

Table 15

Adjusted-Annual Income From Wages for  
Potentially Ineligible and NLS 1979 Samples

Sample	Employment Status	Adjusted Annual Income From Wages <sup>a</sup>			
		N <sup>b</sup>	Mean	Median	Standard Deviation
<u>Veteran</u>					
PI Separated <sup>c</sup>	Full-Time <sup>d</sup>	202	14,564	13,000	9,229
	All <sup>e</sup>	277	12,859	11,592	9,194
PI Separated and Active Duty	Full-Time	227	14,433	13,000	8,707
	All	301	12,899	11,760	8,796
<u>Nonveteran</u>					
NLS 1979 in 1985	Full-Time	637	15,181	12,252	9,881
	All	833	12,862	10,124	9,920

t-Test Statistics				
	Effective Sample	Standard Deviation	Degrees of Freedom	t Value
Full-Time Workers				
PI Separated	153	9,183	621	-0.7 <sup>ns</sup>
NLS 1979 in 1985	470	9,334		
PI Separated & Active	171	8,778	640	-0.9 <sup>ns</sup>
NLS 1979 in 1985	470	9,629		
All				
PI Separated	209	9,100	822	-0.0 <sup>ns</sup>
NLS 1979 in 1985	615	9,952		
PI Separated & Active	228	8,797	454	-0.1 <sup>ns</sup>
NLS 1979 in 1985	615	9,952		

<sup>a</sup> In dollars.

<sup>b</sup> Weighted frequency produced by demographically equating the military and civilian samples.

<sup>c</sup> Includes those serving in the reserves.

<sup>d</sup> Includes only full-time workers who reported income.

<sup>e</sup> Includes full-time, part-time, and not working, excluding full-time and part-time workers who did not report income.

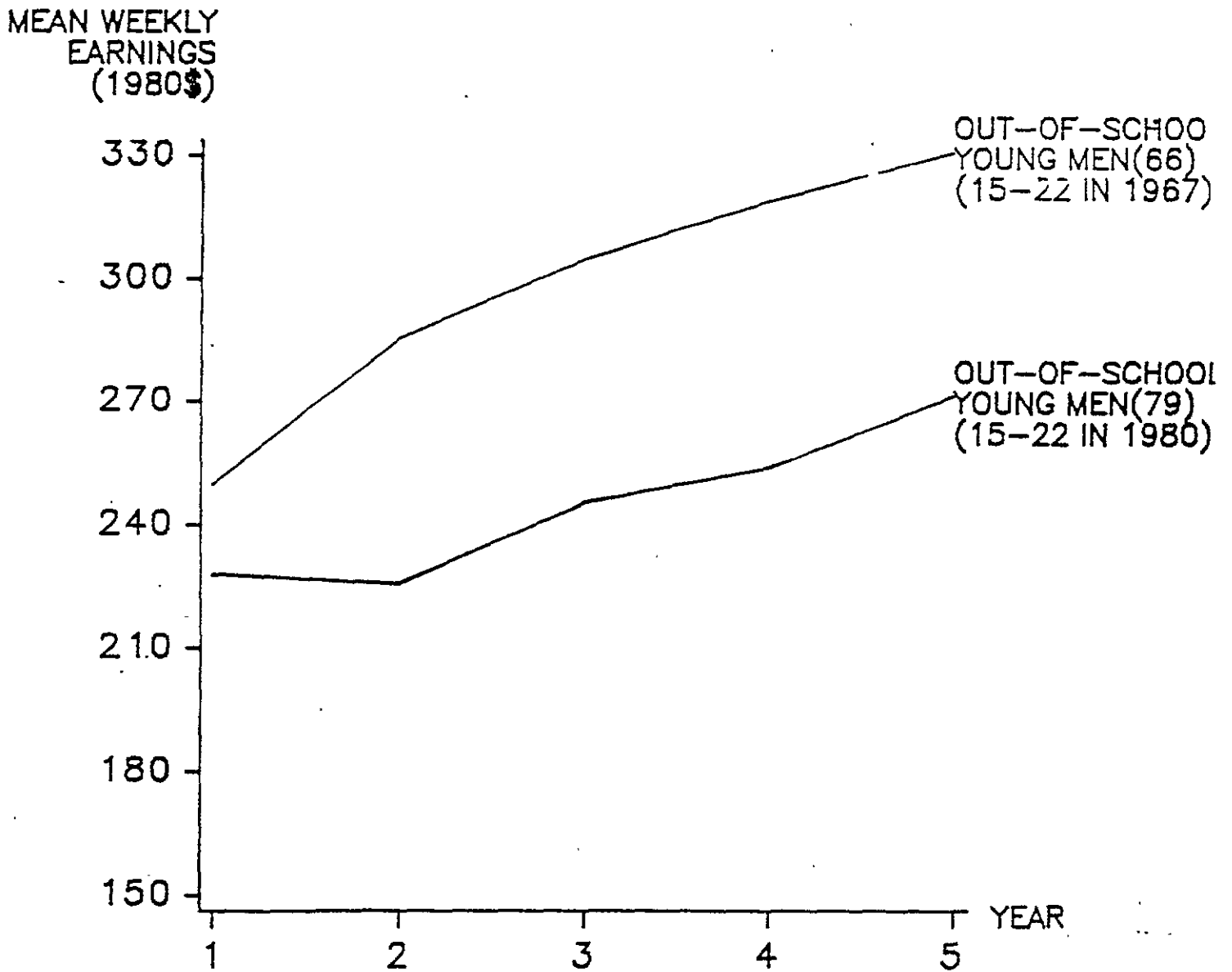
ns = Not Significant.

Source: Table 70 from Laurence, et. al. (1989)

Figure 1

# Mean Weekly Wage (1980\$)

## Two National Longitudinal Survey Cohorts

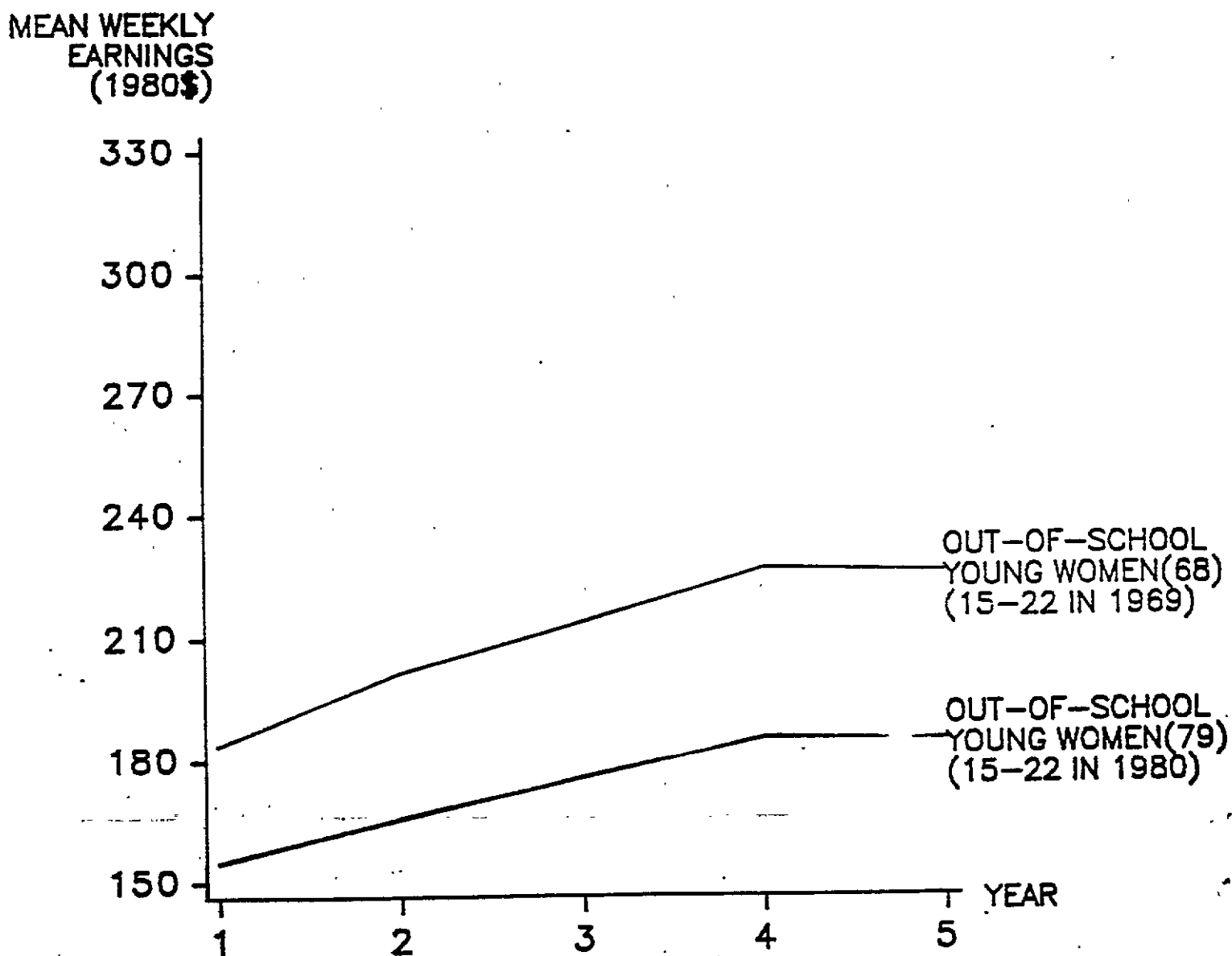


Source: Figure 11 from Manser (1987)

Figure 2

# Mean Weekly Wage (1980\$)

## Two National Longitudinal Survey Cohorts



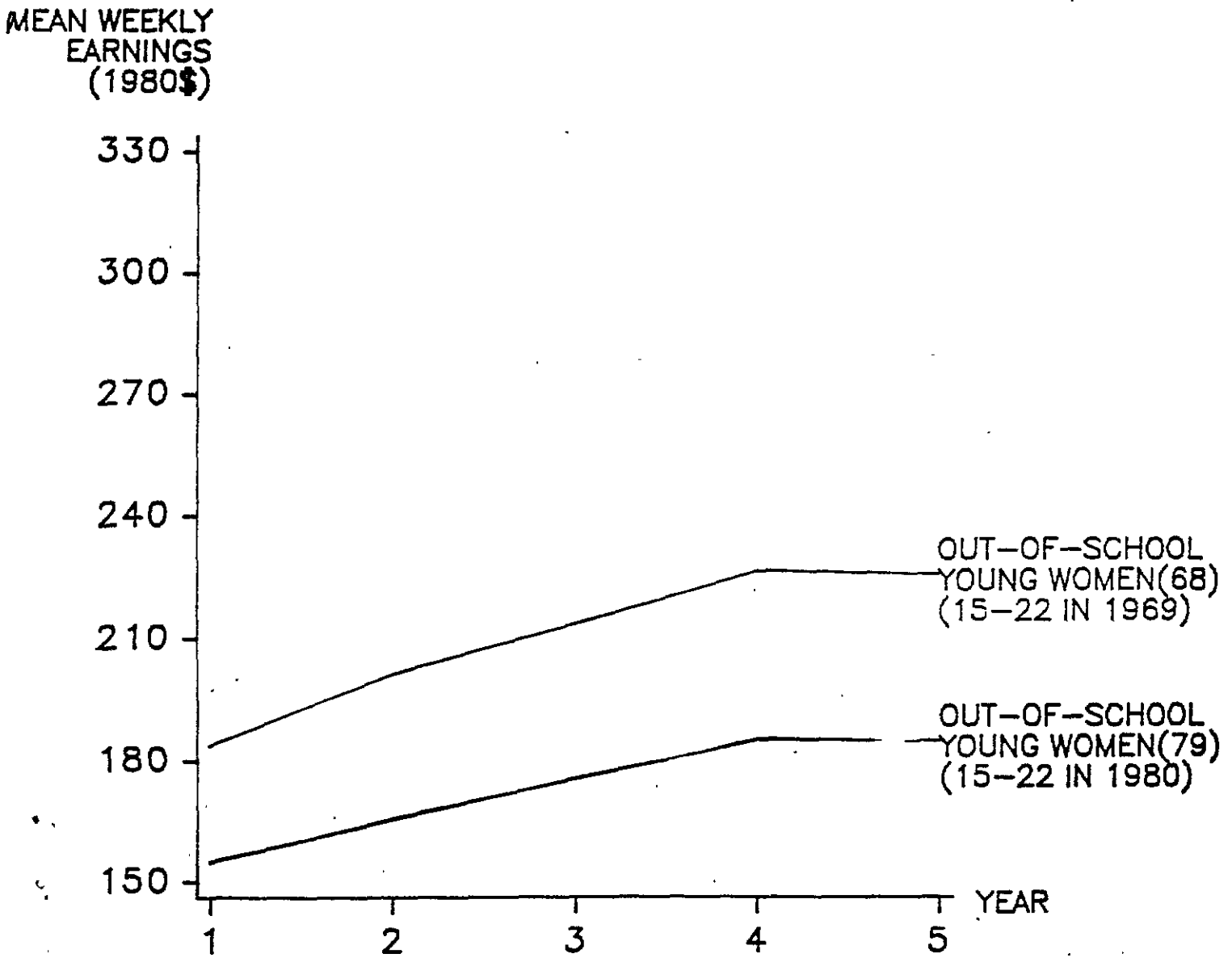
Source: Figure 12 from Manser (1987)



Figure 2

# Mean Weekly Wage (1980\$)

## Two National Longitudinal Survey Cohorts



Source: Figure 12 from Manser (1987)