

## **ATTACHMENT 2—SURVEY APPLICATIONS**

### ***A. Use of the NLSY97 for Diffusion of Useful Information on Labor***

The NLSY97 is widely used by Federal, state, and local government agencies, universities, news media, foundations, and other private organizations. The broad, omnibus nature of the survey reflects the charge to the Bureau of Labor Statistics to “acquire and diffuse among the people of the United States useful information on subjects connected with labor, in the most general and comprehensive sense of that word, and especially upon its relation to capital, the hours of labor, the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity.” (Title 29 USC, Section 1)

### ***B. Use of the NLSY97 in Understanding Labor Markets***

#### **1. Orientation toward the Labor Market**

In every round, the NLSY97 asks respondents about their education, training, and labor force behavior. The extensive work history obtained from the survey can be used to examine some of the most important yet hard-to-answer questions about the evolution of careers in the United States. These data are among the best available to study major questions about the long-term workings of the labor market such as the returns to education and the value of early career job exploration.

For example, many labor market observers wonder how layoffs affect long-term career prospects. If there is a large return to employer-employee specific matches, then layoffs represent a significant degradation of the stock of match-specific human capital. If rewards to experience are not employer specific, then these layoffs will have less serious impact on the earnings of persons who are laid off. The issue becomes one of the rate of return to tenure versus the rate of return to experience, and the NLSY97 allows researchers and policymakers to examine such issues because it tracks mobility between and among employers over a long period of time and in great detail. The impact of layoffs at different stages of the career can be examined, with the scope of the answers improving as the cohort ages.

Data are also available on temporary, consultant, and contract work status. In recent years this mode of work has expanded rapidly, and many have voiced concern about the impact of these employment relationships on the careers of workers. The NLSY97 can trace these relationships and measure the extent to which they lead to more stable work arrangements. Is this another form of job search, with employers following a conservative strategy to ascertain a job match? What roles do these jobs play in learning an occupation and developing job skills?

A final example of the value of these data to researchers and policymakers is the ability to measure the value of military service. Many of the respondents in this cohort served in the military; given the history of respondents’ employment and earnings after leaving the military, researchers and policymakers will be able to examine the extent to which military skills translate to civilian labor market earnings.

#### **2. Factors in Educational Progress**

The NLSY97 yields detailed information on the progress of young adults in secondary school, GED programs, college, and graduate school and provides answers to a number of policy-related questions concerning both the causes and consequences of premature school termination and the effects of post-secondary education. The impact of these choices on early career development can now be examined.

- (a) What are the consequences for high school students who withdraw without obtaining a diploma? What is the relative importance of factors such as differences in ability, motivation, and economic status of the young adults and their families? Research completed with other data suggests that, for both male and female youths, dissatisfaction with schooling is a more important reason for leaving school than employment or income-related reasons. For young women, marriage and pregnancy often are cited as reasons for leaving school prematurely, although disentangling the causality between these behaviors remains a complex, partially unanswerable

question. Also, after controlling for socio-economic differences, minority groups continue to have above-average high school dropout rates.

- (b) Are high school dropouts at a disadvantage compared with high school graduates in terms of earnings and occupational status as their careers develop? If so, do these differences narrow or disappear over time, or do they persist? In general, have declining labor market opportunities for semi-skilled and unskilled workers affected the relative wages for these groups? Cross-cohort comparisons between young men and women in the original NLS cohorts, the NLSY79, and the NLSY97 can directly address this important issue.
- (c) The availability of the Armed Services Vocational Aptitude Battery (ASVAB) scores for NLSY97 respondents greatly expands the utility of the interview data for measuring and tracking qualitative differences in the patterns of regular schooling in relation to outcomes later in life. Given that high schools—public and private, inner city, suburban, and rural—vary widely, detailed evaluation of the impact of specific high school curricula and programs of study is useful in these kinds of analyses. High school diplomas encompass a highly variable range of academic standards, course requirements, and learning achievements.

The presence of data on these factors makes possible more sophisticated rates-of-return models than those that rely simply on years of schooling completed. For example, by including ASVAB scores and high school diploma receipt in the same wage equations, one can get a more accurate assessment of the dual effects from high school completion and human capital development on labor market success.

- (d) What is the impact of out-of-school job-related training? Does it tend to widen or narrow the differences between graduates and dropouts at the time of the first job? To what extent is work experience while attending high school complementary to post-schooling jobs? More specifically, how successful are the work-study cooperative programs both for preparing the student for jobs after graduation and for keeping him/her in school? What evidence, if any, is there that work outside school hours affects retention rates in school? What are the factors that affect the match between post-school jobs and field of study while in college? Is there a greater mismatch between school training and out-of-school employment in a loose labor market rather than a tight one? Does this affect dropout rates?

### 3. Transition from School to Work

A critical area of research relates to the processes of early accommodation of youths to the labor market, the nature of the bridge between formal education and training, and the establishment of relatively stable attachments to given types of work, including experience with temporary part-time jobs while in school and the early exploration of alternatives after leaving school. The continuing high unemployment rates among youth during schooling and in the several years following its termination, as well as the high rates of job mobility during the early post-school years, suggest potentially serious social and economic problems for our society. However, little is known about the actual magnitude of this problem and its long-term implications for the individual. Issues that can be researched include the following:

- (a) Are individuals with certain socio-economic characteristics likely to enter and be trapped in low-paying jobs in which traditional human capital variables appear to be irrelevant, or does the labor market operate so as to sort individuals out among jobs equitably in terms of their productive capabilities? What are the processes of mobility, post-school training, work experience, and modification of goals that result in youths settling into career jobs?
- (b) Does unsatisfactory experience (for example, extensive unemployment) in the immediate post-school years leave “scars” that affect later labor market behavior and experience, or are these problems essentially transitory, with no lasting effects? Research on the potential “scarring” effects of unemployment has been completed for the earlier NLS cohorts. It is now possible to undertake comparable analyses for this cohort as they attain adulthood.
- (c) What relationship is there, if any, between the high school experience, including work activity, and the long term labor market activity of non-college bound youths? Preliminary research strongly suggests that for most individuals, the school-to-work transition is fairly smooth with only minimal periods of non-employment.

Subsequent research will undoubtedly focus on the question of the extent to which this success depends on the extent or type of work experience and whether the smoothness of the transition affects later labor market outcomes.

- (d) How does the curriculum of students, whether vocational, college preparatory, or general, affect their long-term labor market success? We will be able to determine whether training programs in schools show positive impacts on later life outcomes.
- (e) How do college “dropouts” fair in the labor market? While more and more Americans are going to college, more and more individuals are also leaving college before completing a degree. (The Census Bureau reports that in 2015, only 55% of Americans aged 25 to 34 who had attended college had completed a bachelor’s degree or more.) With the wide range of test scores, family background measures, and detailed information labor market outcomes, the NLSY allows researchers to examine how this “forgotten middle” fairs in the labor market.
- (f) How does delaying graduation from college affect the subsequent labor market success of youths? Increasingly, time to graduation has increased among American youth, particularly among youth attending schools not considered to be elite. This increased time to graduation appears to be the result of students working more (and hence enrolling in fewer hours) and interruptions in their enrollments. Yet, little is known about the subsequent labor market performance of these late graduates. With the NLSY respondents ranging from 33 to 38 years of age, we can study the consequences of their late graduation.

#### 4. The Work Environment

The earlier National Longitudinal Surveys relied heavily on traditional economic variables to characterize the types of jobs held by respondents, for example, earnings, hours worked, occupation, and industry. These fall short of adequately measuring the variation in work environment, particularly among young adults who are typically in jobs with below-average earnings and occupational status. Questions about freelance jobs (for example, baby-sitting, mowing lawns) and self-employment in the earlier rounds of the NLSY97 helped to capture the wide variety of work experience and the informal, temporary quality of many youth jobs. As respondents age, these kinds of information make possible a much more penetrating analysis of the character of the early work experience of youth and the effects on later employment. For example, the following kinds of questions can be addressed.

- (a) Are there various avenues for advancement for young adults in the labor market? For example, to what extent does increased responsibility and improvement in job content occur without being reflected in a change in the job title or a change in employer, the conventional indicators of “job change”? In addition, what is the character of the extensive job changes made by young adults? Does “job hopping” result in progressively better jobs along all of the dimensions described above, or does it simply represent a string of equally poor employment opportunities? How does the answer to this question vary depending on sex, race, ethnicity, and the socio-economic and psychological characteristics of the young adult? What is the effect of variation in the economic environment? What is the role of job-specific experience relative to general labor market experience in explaining earnings growth?
- (b) What kinds of jobs do young adults consider desirable, and at what wage rates? What differences are there in this regard between those still in school and those who have ended their formal education? What is the extent of variation in this regard by sex, race, ethnicity, and socio-economic status? What are the causes of job satisfaction or dissatisfaction? Does job dissatisfaction lead to job mobility? Research already completed shows that there are systematic differences in the desired characteristics of jobs at entry compared to those at mid-life, at least among the noncollege population. Young adults entering the labor market are thought to be more concerned with job security, perhaps because of their tendency to be in unstable positions, while mid-life workers are more concerned with promotions. This sample is well suited for studying this evolution of attitudes. Gender differences include a greater emphasis by women than men on job significance and good interpersonal relationships.

## 5. Racial, Sex, and Cultural Differences in Employment and Earnings

One of the principal purposes of the NLSY97 is to examine racial, sex, and ethnic differences in employment and earnings. At a descriptive level, gross differences in employment and earnings among various race, sex, and ethnic groups have been identified. In addition, multivariate techniques are currently being used to ascertain the underlying factors responsible for these differences. For example, human capital theory suggests that an individual's earning power in the labor market will reflect the effects of various types of human capital investments. Consequently, earnings should be significantly related to educational attainment, total work experience in the labor market, and tenure on the current job. In addition, various studies have identified a number of other factors that appear to be significantly related to earnings, for example, ability (IQ), class of worker, health status, size of place of residence, and region of residence. This area of research can be replicated using the NLSY97 data set.

The kinds of analyses described above for the NLSY97 cohort have in many cases already been done for the original NLS cohorts and the NLSY79. Consequently, several areas of considerable interest can be examined by comparing the new and old cohorts. For example, changes in the returns to various kinds of human capital investments for different groups can be measured. The extent of labor force attachment (and related labor market outcomes) among young women in the NLSY97 cohort compared with that of their counterparts in the earlier cohorts is another potential research area. Additional research could consider changes reflecting demographics (for example, changes in cohort sizes due to the "baby boom"), social change (impact of the number of single mothers), and the state of the economy. The answers to these questions are important for helping to guide public policy, as it pertains to both the labor market for young adults in particular and to the problems of labor market discrimination in general.

## 6. The Relationships between Economic and Social Factors, Family Transitions, and Well-Being

In recent years the percent of all births born to teenage mothers has fallen from over 15 percent to about 7 percent. Past research suggests that these women have much poorer prospects than those who have children later; teenage mothers receive less education, have more children, and have both a higher risk of divorce and of becoming dependent on public assistance. For young men as well as young women, early parenthood may curtail the amount of education they receive and reduce their earnings potential. As the longitudinal collection of data continues, these issues can be examined in ever-increasing detail.

The NLSY97, which is enhanced by detailed pregnancy histories, makes it possible to study a variety of issues relating to these problems:

- (a) What are the cultural, familial, attitudinal, and economic factors that increase the chances of early childbearing, early marriage, and separation or divorce? How have these causal relationships changed over time, as indicated by comparisons with the NLSY79 cohort and the 1966 young men and 1968 young women cohorts? Research with the NLSY79 data has already documented important changes in the relationship between early childbirth and early school-leaving and how early pregnancy is associated with a variety of family and outside influences. This research has documented the importance of alternate education programs, such as the GED, for helping young mothers attain secondary school credentials. It is important to see whether we can replicate these findings in the NLSY97.
- (b) What are the social and economic consequences of early childbearing, marriage, and divorce? How do these effects vary according to sex, race, ethnicity, and socio-economic status?
- (c) For individuals who assume the responsibilities of marriage and child rearing at early ages, and for young mothers whose marriages dissolve, what kinds of public interventions are most likely to be effective in promoting economic independence? What are the potential roles of provision of child care, counseling, access to continuing education, and job training? Increasing numbers of researchers are utilizing the NLSY79 data set to explore these important policy-relevant questions; the NLSY97 will provide further information regarding a new generation.
- (d) What are the implications of marital turbulence for mid-life outcomes? Do the effects of divorce depend upon when the divorce comes and the length of the marriage it terminated? What are the implications of marital status and especially divorce for measures of income equality?

## **7. Geographic Mobility**

The NLSY97 can be used to examine in detail the associations between geographic mobility, local and national levels of economic activity, and social, economic, and demographic characteristics of these respondents and their families. The longitudinal survey design, in conjunction with the plan to follow respondents regardless of where they move, enables researchers to model the determinants and consequences of geographic movement. In particular, the rich attitudinal content of the survey permits inferences with respect to the relative strength of economic motives in migration.

## **8. The Measurement and Analysis of Gross Changes in Labor Market Status**

The NLSY97 permits quantification of gross changes in many aspects of the labor force status of young adults. The oversampling of blacks and Hispanics permits comparative analyses of labor force transition patterns for young male and female adults by race and ethnicity. A wide variety of background information also permits a careful examination of the extent to which variations in labor force behavior reflect differences in backgrounds, ethnic characteristics, and differential access to schooling. Patterns of labor force continuity and discontinuity for the various groups can be examined in great detail, and the social and economic costs of the variations in work attachment can be analyzed.

From a descriptive perspective, various types of mobility of young adults can be quantified: movement into and out of the labor force and between employment and unemployment, as well as movements between jobs and between full- and part-time employment. Moreover, the relationship between these changes and changes in school enrollment status, demographic events, and work attitudes can be analyzed. Examination of changes in labor force and employment status in relation to changing levels of national and local unemployment permit the testing of the “discouraged worker” and the “additional worker” hypotheses and an analysis of a variety of dimensions of frictional and “disguised” unemployment. Young adults in this sample have been followed through a variety of economic climates permitting a more careful examination of the extent to which these gross flows are sensitive to cyclical and regional variations in economic conditions.

Also, by contrasting the patterns of labor force dynamics of the original NLS samples of young men and women and the NLSY79 with the patterns of the NLSY97 cohort, the question of whether or not the relationships between these transitions and levels of economic activity have changed over the past decades can be considered. Finally, one is able to examine whether or not demographic and socio-economic factors such as marriage, childbearing, and changes in family income levels show the same association with gross labor force movement as was true for the earlier cohorts.

### ***C. Use of the NLSY97 for Social Indicators Analysis***

Data derived from the NLSY97, used in conjunction with data from the 1966 young men’s cohort, the 1968 young women’s cohort, and the NLSY79, represent a unique means of measuring certain dimensions of social change among young American adults.

We are now able to measure trends in school attrition, labor force entry, and family formation. A variety of attitudinal measures toward work, school, and home are available for comparisons across time. From a more purely economic perspective, patterns of labor force behavior and experience of the four cohorts can be compared. This kind of analysis permits insights into such questions as the following: (a) the extent to which the draft and the Vietnam War conditioned labor market experiences of young men during the late 1960s and the differential response of cohorts of the ’80s and late ’90s to different rules regarding military service; (b) the extent to which the labor market experience of the earlier cohorts reflected the impact of their large numbers relative to the total labor force and how the birth cohort of the early ’80s is affected by the baby bust generation ten years earlier; and (c) the degree to which changing attitudes about the appropriate role of women have influenced the educational and labor market experience of the current generation of young women and whether there are any significant differences in experiences between the women in the NLSY79 and NLSY97.

The original NLS cohorts and the NLSY79 have already been used in this manner to compare early fertility patterns, work attitudes, and working propensities of youth in the late 1960s and late 1970s. This same analysis is destined to be repeated for the NLSY97. Comparison of this cohort with the earlier NLS cohorts of young people will reveal whether there are changes in work expectation over the intervening decade and a half.

### **1. Delinquent Behavior, Arrest Records, and School Discipline**

The inclusion of self-reported delinquent behavior, school discipline, and arrest records in this cohort has permitted preliminary examination of the effects of these deviant behaviors on adolescent employment activity. Subsequent interview rounds will update these activities. This sample is ideally situated to understand delinquency, recidivism, and desistance as youths either become enmeshed in anti-social behavior or put youthful indiscretion aside and establish productive lives. The repeated collection of these data is of fundamental importance, as they permit examination of the extent to which (1) a sustained pattern of delinquent activities through adolescence and early adulthood is related to employment difficulties and (2) early deviant behaviors may be causally associated with a disposition toward excessive alcohol usage in later adolescence and early adulthood. Using both self-reports of behavior and of official disciplinary and court actions will allow researchers to separate their effects on the transition to employment. Several specific areas can be explored.

- (a) What are the long-term effects of delinquency on adult employment? How many young adults with prior arrest records are in the labor force? Is prior official contact with the law in itself a barrier to employment, over and above the effects of factors leading to delinquent behavior? Are there differences in the employment implications of adolescent misbehavior for young adults from different social strata or different ethnic groups? Are particular patterns of delinquent behavior associated with different patterns of employment? In this regard, recently completed research suggests that the relationship between illegal activity and employment does indeed vary according to the type of crime involved; among youth out of school, young men who engage in violent activities have trouble getting and keeping jobs, resulting in less time employed and more time unemployed than their more peaceable counterparts.
- (b) How do the factors associated with deviant behavior affect performance in and outcomes of subsequent government education and training programs? To what degree have such programs reached youths with police records? What implications does delinquency have for the accumulation of skills and education? Do youths with school discipline problems face special difficulties in acquiring employment-related skills? What effect does a criminal record have on school completion? High school dropouts have relatively high levels both of self-reported illegal behavior and of criminal records. To what extent does delinquency or a criminal record contribute to the employment problems of dropouts? For young women, in particular, how does a delinquency record interact with early school leaving and early pregnancy and motherhood?

### **2. Drug and Alcohol Use**

Questions on drug and alcohol use profile the substance use patterns of young adults, a particularly important population. Evidence from drug abuse agencies indicates an increasing frequency of polydrug abuse, but the dynamics of such abuse in the general population are unknown. Having substance-use information on the NLSY97 respondents permits research into a number of important areas.

- (a) What are the patterns of drug and alcohol use among the young adult population? Information on drug use gathered in the delinquency instrument, although limited, can be used to look at persistence and change in drug use patterns over time. What are the correlates of drug use? How do drug use patterns vary across ethnic groups and social class? Which young people are most likely to persist in drug use? Of particular interest is research on use of various combinations of drugs and alcohol, and the relationships between these combinations and successful life cycle transitions.

Research already completed from a variety of data sets indicates that there are sharp differences in the levels of alcohol use between men and women and between black men and other men. Women and black men report much lower levels of alcohol use, and especially a much lower frequency of heavy drinking, than do white or Hispanic men. The data set will permit examination of the demographics of changes in alcohol use patterns over time and the impact of marriage, school, and parenthood transitions on drinking.

- (b) Do labor market conditions, particularly high unemployment rates, affect the incidence and prevalence of drug use? Can we predict which unemployed youths will turn to drugs, based on their background characteristics? The longitudinal information on alcohol use will allow causal inferences to be made, controlling for levels of alcohol use preceding spells of unemployment.
- (c) Use of alcohol and some drugs are an integral part of social life among wide segments of society, and at the same time they are known contributors to major social problems. The NLSY97 may permit researchers to distinguish between socially acceptable and socially destructive patterns and combinations of drug use.