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10 The Effects of Attitudes and Aspirations on the Labor Supply of Young Men

Linda Datcher-Loury and Glenn Loury

10.1 Introduction

Any discussion of the causes of earnings inequality inevitably raises the question of the extent to which earnings differences reflect differences in the opportunities available to individuals versus differences in the behavior of individuals faced with similar opportunities. On one hand, conservatives invariably call attention to the fact that different people with the same objective opportunities will not generally choose to act in such a way that their earnings are equal. Liberals, on the other hand, tend to stress the importance of divergent opportunities as an explanation of earnings disparities. Liberals further argue that since values, attitudes, and beliefs may themselves partially reflect an individual's previous labor market experiences (namely, past opportunities), their contemporaneous correlation with individual earnings is not sufficient evidence to establish the direction of the causality implicitly assumed by the conservative argument.

This divergence of views about the importance of subjective versus objective factors in individual earnings determination takes on particular significance in the discussion of racial economic inequality. The practice of racial discrimination in employment has made it quite natural to seek an explanation of the still substantial gap in earnings between blacks and whites in the presumably different opportunity structures they face. But many observers of American society have called attention to cultural differences between blacks and whites that may have economic consequences (Myrdal 1946; Moynihan 1965; Liebow

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1967; Banfield 1974). This notion achieves its clearest expression in the “culture of poverty” argument, which posits that the persistence of poverty over generations is partly the consequence of the inculcation in poor children of cultural norms inconsistent with the attainment of material success.

Despite the importance of these considerations for understanding the roots of inequality, there has not been a great deal of empirical work in the economics literature that measures the impact of subjective attitudes, values, and beliefs on earnings and employment. This state of affairs no doubt reflects the difficulty of quantitatively measuring an individual’s subjective state of mind. It is also a consequence of the conceptual problem facing economists who attempt to integrate the ideas and findings of the other social sciences into our choice-theoretic model of individual behavior. Because we economists have so little to say about how preferences are formed, we tend to eschew explanations of economic differences that rely in an essential way upon variations in attitudes, values, and beliefs (see, for example, Becker and Stigler 1977).

This paper describes the results of an empirical investigation of the relationship between a variety of subjective factors, on the one hand, and the labor supply behavior of young black and white men, on the other. While controlling for an array of economic factors ordinarily thought to determine labor supply, we seek to estimate what effect our subjective variables have on the work effort of these young men. Our findings suggest that some measures of attitudes, values, and beliefs are, holding constant economics factors, important determinants of labor supply for the individuals in our samples. We also find that this relationship between subjective factors and work effort is quite different for black and white young men.

10.2 Theoretical Framework

In this section, where that ubiquitous device of economists—the model—ordinarily appears, we attempt to provide a plausible, illustrative scenario for why attitudes and aspirations might affect work hours and to discuss some relevant theory in the literature. This scenario is suggested by the recent application of psychological cognitive dissonance theory to the study of economic behavior by Akerlof and Dickens (1982).

Imagine a dynamic model of labor supply in which the real wage varies randomly over time, following a stationary stochastic process with an unknown parameter. Suppose further that hours worked may not be instantly or costlessly adjusted from period to period, so that optimal labor supply at any particular time depends on the worker’s

estimate of this parameter, hereafter referred to as the *permanent wage*. Plausibly, optimal hours could be taken as an increasing function of the estimated permanent-wage rate. For example, if the worker remains on the same job, he supplies more hours when expected wage growth is higher given the current wage. In the case in which the worker is unemployed for some period, he exerts more effort in his job search when he anticipates a greater expected payoff.

Now suppose that beliefs about the expected value of the permanent wage are not simply a matter of statistical inference based on objective conditions and past experience, but are also affected by the worker's preconceptions about himself and the labor market. Following Akerlof and Dickens, we postulate that the worker chooses those beliefs, given his preconceptions, to maximize his utility. Utility is, on one hand, enhanced by adopting a posterior parameter estimate of the permanent wage in keeping with subjective preconceptions and is, on the other hand, reduced by adopting a posterior estimate inconsistent with the objective statistical data. The result of this trade-off is the adoption of posterior estimates of the expected value of the permanent wage biased away from the "correct" statistically efficient estimate in the direction of the parameter values most consistent with the worker's preconceived notions about himself and the labor market, that is, *cognitive dissonance*. This means that a worker who is optimistic about his chances for success in the labor market will anticipate a higher permanent wage and, as a result, work more hours than an otherwise identical worker who is relatively pessimistic.¹

The main problem associated with estimating the size of this hypothesized effect is the measurement of beliefs. In this study of young men in their late teens and early twenties, we proxied these beliefs mainly by the youths' occupational aspirations at age 30. There are a number of ways of interpreting their responses to this question. They may reflect the youths' subjective assessment of their own abilities, or alternatively, of the opportunities they expect to face. A teenager aspiring to a managerial or crafts job at age 30 could plausibly be regarded as having a higher subjective evaluation of his capabilities than a contemporary who hopes to be a laborer when he grows up. This correlation between expected labor market success and occupational aspirations is weakened to the extent that youths choose occupations that they know they have little hope of attaining. The importance of this slippage is investigated in one of the data sets used here, which not only reports aspirations but also distinguishes among youths who think their chances are excellent, good, fair, or poor.

Another possibility is that low occupational aspirations for a given youth reflect his belief that it is pointless to hope for a higher-level occupation because such opportunities are not available for "people

like him.” Alternatively, reported occupational aspirations may reflect the normative judgment of the prospective worker as to what he “ought” to want for himself when older. The expectations of his family and friends would then presumably influence his reported aspirations.

It is not possible to know with certainty which of these speculations is correct. Nonetheless, in our analysis of the labor supply of these young men, we make an effort to control for the objective worker characteristics likely to influence future opportunities and for the family background characteristics and attitudes of “significant others” likely to affect the young worker’s normative judgment.

Although occupational aspirations serve as the principal proxy for beliefs, they are supplemented by survey items measuring attitudes toward work, education, and religious commitment. We assume that expectations about labor market success are positively correlated with beliefs about the efficacy of job search and the importance attached to work and schooling. The extent of religious commitment is the least obvious of the proxies for labor market success. It is employed here to identify youths whose level of religious commitment was far lower than that of their peer group; it therefore may serve as a general measure of alienation.

Although the effect of attitudes and aspirations on labor market behavior has not received a great deal of attention in the economics literature, a few empirical studies have tested for its impact on labor market outcomes. Using a sample of young and middle-aged men taken from the National Longitudinal Surveys of Labor Market Experience (NLS), Andrisani (1977) investigated whether the perceived relationship between initiative and success affected labor market experience. He measured this relationship by the respondent’s score on an abbreviated version of Rotter’s Internal-External Scale. Andrisani’s analysis strongly suggested that attitudes and initiative are important factors explaining differences in earnings, earnings growth, occupation, and occupational advancement for blacks and whites as well as for the young and the middle-aged sample members. Furthermore, his results indicated the payoffs from these factors are as high for blacks as for whites.

Duncan and Morgan (1981) attempted to replicate Andrisani’s findings of the effects of attitudinal efficacy on subsequent changes in economic status using a sample of men aged 18 to 36 taken from the University of Michigan Panel Study of Income Dynamics. They found that their measures of efficacy had no significant effect on hourly earnings two years hence for either blacks or whites. But the estimated impact for a four-year change was about three times as large as the two-year effect and, in the case of whites, significantly different from zero.

The analysis performed here expands on this earlier work in three main ways. First, it identifies whether occupational aspirations and other attitudinal factors not examined by Adrisani or Duncan and Morgan have an impact on labor market experience. Second, it examines the effect of these variables on labor supply rather than on earnings or on occupational status. Third, the analysis includes a large sample of low-income black youths, a group with particularly intractable labor market problems.

10.3 Data

The data used here to test hypotheses about the effects of aspirations and attitudes on labor supply come from (1) a sample of men aged 16 to 24 years taken from the 1979 NBER Survey of Inner-City Black Youth in Boston, Chicago, and Philadelphia and (2) a sample of men aged 14 to 19 in 1966 taken from the National Longitudinal Survey of Young Men.

Table 10.1 presents the mean values of the important variables in the analysis. The labor-supply, income, and work-experience variables for the NLS sample were constructed from responses to the 1973 interviews and were measured as of 1972. Occupational aspirations were measured at ages 17–19, that is, in 1966 for the older group and in 1969 for the younger subsample. All other items were measured as of 1971, since no interview was conducted in 1972. We restricted the sample to youths with positive work hours and earnings in 1972 who were last enrolled in school in 1971 or earlier. We also limited it to youths living in SMSAs, for comparability with the NBER data. The NBER labor-supply and income variables refer to the 12 months preceding the interview, while the other items were measured as of the survey date. As in the case of the NLS, the NBER sample was restricted to those with positive work hours and earnings and no schooling in the past year.

The distribution of attitudes and occupational aspirations is of special interest for our purposes. The attitudes measured in the NBER survey are represented by dummy variables, with a respondent coded as a one for attitudes 1 and 2, respectively, if he answered “true” to the statements “Most of your friends are unemployed” and “The people you know who are unemployed could find work if they really wanted to.” A respondent coded as a one for attitudes 3 and 4, respectively, if he answered “very important” to the question whether having a good education and working at a job were “very important, somewhat important, or not at all important in life right now.” Finally, sample members are coded as a one for attitude 5 if they answered that the role of religion was “very strong, strong, or somewhat strong” in their lives.

Table 10.1 Means of Selected Variables from NBER and NLS Samples

Variable	NBER Blacks		NLS 14–16		NLS 17–19	
	16–19	20–24	Blacks	Whites	Blacks	Whites
Annual Hours of Work	1,083.0	1,455.9	—	—	—	—
Weeks Worked	29.6	37.6	44.9	47.6	48.0	47.7
Hours Worked per Week	35.5	39.1	—	—	—	—
ln Hourly Earnings	.77	1.05	—	—	—	—
ln Weekly Earnings	4.27	4.69	4.70	4.97	4.84	5.14
Years of Schooling	10.5	11.4	11.5	12.2	11.7	12.9
Work Experience	1.7	4.5	3.4	2.8	6.1	4.9
Age	18.2	21.9	15.0	15.1	17.9	17.9
ln Nonlabor Income	2.43	1.96	4.74	5.24	4.90	4.75
Household Head	.07	.20	.36	.48	.57	.70
Lives in South	—	—	.60	.26	.53	.23
Lives in Philadelphia	.29	.34	—	—	—	—
Lives in Chicago	.41	.35	—	—	—	—
Lives in Boston	.30	.31	—	—	—	—
Union at Workplace	.20	.29	.27	.26	.32	.30
Professional or Managerial Worker	.02	.05	.06	.14	.12	.22
Clerical or Sales Worker	.13	.13	.09	.13	.14	.20
Craftsman	.15	.15	.11	.20	.12	.21
Operative	.18	.23	.37	.29	.37	.23
Laborer, Service Worker, or Other	.52	.44	.37	.24	.14	.25

Percentage of Weeks Worked, 1967-71	—	—	43.2	49.3	77.7	66.7
Attitude 1: Most Friends Are Unemployed	.37	.28	—	—	—	—
Attitude 2: Unemployed Could Find Work If They Wanted to	.54	.46	—	—	—	—
Attitude 3: Having a Good Education Is Very Important	.73	.73	—	—	—	—
Attitude 4: Working at a Job is Very Important	.88	.88	—	—	—	—
Attitude 5: Religion Plays Strong Role	.65	.71	—	—	—	—
Professional or Managerial Worker at Age 30	.37	.47	.34	.39	.34	.48
Sales or Clerical Worker at Age 30	.07	.09	.08	.04	.10	.03
White-Collar at Age 30, Excellent Chance	.09	.11	—	—	—	—
White-Collar at Age 30, All Others	.35	.45	—	—	—	—
Craftsman at Age 30	.31	.19	.21	.18	.20	.20
Craftsman at Age 30, Excellent Chance	.09	.05	—	—	—	—
Craftsman at Age 30, All Others	.22	.14	—	—	—	—
Operative at Age 30	.12	.11	.08	.06	.12	.06
Laborer, Service Worker, or Other at Age 30	.13	.13	.29	.33	.24	.23

In both the NLS and NBER surveys the occupational aspiration measures are derived from responses to the question "What type of job or occupation would you like to have when you are 30 years old?" In addition, the NBER survey codes distinguish between respondents who thought their chances of attaining that job or occupation were "excellent" and those who thought their chances were only "good, fair, poor, or don't know."

Table 10.1 shows that there are only small differences in attitudes between the older and younger NBER subsamples. The overwhelming majority of both groups reported that religion played a strong role in their lives and that having a good education and working at a job was very important to them at that time. In addition, although approximately one-third of each group believed that most of their friends were unemployed, about half of each group thought that the unemployed could find work if they wanted to.

Table 10.1 also indicates that occupational aspirations were relatively uniform across races and age groups. For all samples, occupational aspirations were concentrated in the professional-managerial category, with one-third to one-half of young men falling into this group. The crafts category generally made up about one-fifth of both the black and white samples, but blacks were somewhat more prevalent in the operative and sales-clerical groups.

Table 10.2 shows the relationship between adult occupation and occupational aspirations. As indicated earlier, aspirations were measured at ages 17–19 for both NLS samples, while actual occupation was measured as of ages 20–22 for the younger group and ages 23–25 for the older group. Because the NBER study does not include a longitudinal component, both actual occupation and occupational aspirations were taken from the 1979 interviews. The underlined figures in table 10.2 give the fraction of the sample with occupational aspirations in the specified category and the subgroups give the actual occupational distribution within each aspirational level. For example, 37 percent of NBER men aged 16 to 19 aspired to be professional or managerial workers. Only 3 percent of this group, however, actually held professional or managerial jobs.

Table 10.2 suggests that, especially in the case of white-collar and crafts jobs, blacks were much less likely to obtain jobs within their desired occupational category. Forty-five percent of NLS blacks aged 17 to 19 who in 1966 aspired to be professional or managerial workers ultimately held operative, service, or laborer jobs by 1971, compared to only 27 percent of the whites. Similarly, 65 percent of the blacks aged 17 to 19 who aspired to be craftsmen held jobs in the operative or service-laborer categories; the portion of comparable whites was only 45 percent. The congruence between the current occupation and

occupational aspirations is smallest for the NBER 16–19 group. With the exception of the small part of the sample that had clerical or sales aspirations, at least half of these workers tended to fall into the service-laborer category, regardless of their desired occupation at age 30. Nevertheless, this finding is largely an artifact of measuring both occupational aspirations and actual occupation as of ages 16–19. As these individuals mature, their profile may become closer to that of the older NBER group.

10.4 Estimates of the Effects of Attitudes and Aspirations

Findings for the effects of attitudes and aspirations on labor supply are listed in table 10.3 for the NBER samples and in table 10.4 for the NLS samples. Treating the log wages as endogenous, the first two columns of table 10.3 report the two-stage least-squares coefficient estimates for annual work hours.² Examination of the variables other than attitudes and aspirations shows that, for both age groups, the labor supply slopes upward; nonlabor income reduces annual work hours; and being a household head significantly raises the amount of labor supplied.³ The impact of these variables, however, is measured much more precisely for the 20–24 age group than for the 16–19 cohort. In the case of the latter, only the coefficient of household head is even marginally significant. The findings for both age categories also indicate that, with the exception of professional and managerial workers, the current occupation has no significant impact on work hours.

The results for the attitudinal variables for the 20–24 cohort show that they are generally significant and have the expected signs. Respondents who believed that having a good education was very important, who believed that the unemployed could find work if they wanted, and who did not report that most of their friends were unemployed averaged almost 150 more hours of work per year than the remaining respondents. Similarly, those who stated that religion did not play a strong role in their lives worked significantly fewer hours.

The effect of attitudes on work hours for the 16- to 19-year-old sample appears to be much more limited. Only “having a good education” is significant at the 5 percent level. Furthermore, its sign is the opposite of what was expected. The occupational aspiration items also fail to have any major impact on the labor supply of that age cohort. In general, it appears that the variation in labor supply for this group is not very systematically related to the variables included in this analysis. This finding may largely result from the youthfulness of this sample. Since the respondents were at the beginning of their working lives, job instability caused by the amount of time devoted to job search and gathering

Table 10.3 Estimated Coefficients from Labor-Supply Regressions for NBER Men with Nonzero Work Hours and No Schooling in Previous Year

	Annual Work Hours Coefficients		Supplementary Analysis for Ages 20–24	
	Ages 20–24	Ages 16–19	Weeks Worked	Hours per Week
Intercept	–72.6 (502.4)	–835.0 (1349.4)	–24.94 (18.92)	27.069 (6.488)
ln Wages (predicted)	484.4 ** (193.6)	21.8 (512.8)	10.01** (4.57)	–1.040 (2.500)
ln Nonlabor Income	–49.9 *** (13.2)	–20.8 (27.4)	–1.48*** (.32)	.156 (.170)
Age	24.6 (23.9)	88.7 (81.7)	.24 (.61)	.428 (.308)
Household Head	233.2 *** (78.6)	370.7 * (221.1)	6.48*** (1.91)	.817 (1.015)
Professional or Managerial Worker	285.8 * (147.0)	756.9 (520.3)	3.52 (3.59)	2.860 (1.898)
Clerical Worker	6.4 (99.8)	–0.9 (183.1)	–2.12 (2.44)	1.911 (1.289)
Craftsman	10.1 (100.0)	67.2 (187.3)	.54 (2.44)	–.077 (1.291)
Operative	20.3 (82.2)	2.5 (155.3)	–1.10 (2.02)	1.849* (1.062)
Laborer, Service Worker, or Other	—	—	—	—
Attitude 1: Most Friends Are Unemployed	–153.7 ** (71.8)	47.5 (160.1)	–3.85** (1.74)	–.197 (.927)
Attitude 2: Unemployed Could Find Work If They Wanted to	130.6 ** (65.3)	198.2 (120.9)	2.40 (1.59)	–.281 (.843)
Attitude 3: Having a Good Education Is Very Important	145.5* (78.7)	–325.8 ** (143.6)	3.27* (1.89)	1.227 (1.016)
Attitude 4: Working at a Job Is Very Important	39.7 (102.9)	384.9 * (234.3)	.47 (2.52)	1.080 (1.329)
Attitude 5: Religion Plays Strong role	183.77** (69.4)	–27.0 (121.2)	5.64*** (1.69)	.020 (.896)
White-Collar at Age 30, Excellent Chance	351.8 *** (134.1)	77.0 (262.3)	8.85*** (3.29)	1.098 (1.731)
White-Collar at Age 30, All Others	233.0 ** (102.7)	103.6 (178.3)	6.32** (2.50)	.396 (1.327)

Table 10.3 (continued)

	Annual Work Hours Coefficients		Supplementary Analysis for Ages 20–24	
	Ages 20–24	Ages 16–19	Weeks Worked	Hours per Week
Craftsman at Age 30, Excellent Chance	347.3 ** (163.4)	261.9 (264.6)	5.09* (2.79)	2.143 (2.110)
Craftsman at Age 30, All Others	140.2 (122.6)	86.0 (192.3)	5.09* (2.79)	–.885 (1.583)
Operative at Age 30	284.1 ** (130.1)	–44.8 (213.7)	3.35 (3.23)	3.809** (1.680)
Service Worker, Laborer, or Other at Age 30	—	—	—	—
N	507	194	507	507
R ²	.17	.11	.17	.04

Note: Asymptotic standard errors are in parentheses. The symbol *** denotes significance at the one percent level, ** denotes significance at the 5 percent level, and * denotes significance at the 10 percent level, all in two-tailed tests.

information about the job market may have hidden systematic differences between workers.

The largest effect of occupational aspirations on work hours comes from the 20- to 24-year-old subsample. Respondents who aspired to be white-collar workers or craftsmen by age 30 and who thought their chances of doing so were excellent worked 350 more hours per year than those who wanted to be service workers or laborers. Note, in addition, that at least 120 annual hours of work separate white-collar and crafts aspirants who believed their chances were excellent from those who did not. This suggests that the confidence with which the aspiration is held is a major factor determining the extent of its impact on work hours. Respondents who aspired to be operatives worked more hours, *ceteris paribus*, than those who had higher crafts and white-collar aspirations but who were relatively uncertain about their chances for success. Initially, separate coefficients for the effects of professional-managerial and clerical-sales aspirations were estimated; but since they were virtually identical, they were constrained to be the same here. The coefficients for aspiring to be an operative with an excellent chance and aspiring to be an operative without an excellent chance were constrained to be equal for the same reason.

In order to determine whether the impact of the attitudinal and aspirational items occurred because of more weeks worked per year or because of more hours worked per week, we ran separate regressions using these dependent variables. With the exception of “operative at

age 30," weeks worked appears to account for most of the effect of both attitudes and aspirations, since their respective hours-per-week coefficients are uniformly insignificant and are generally quite small. Furthermore, if the attitude and aspiration coefficients in the third column of table 10.3 are multiplied by 39—the average number of hours worked per week in the sample—the resulting figures are close to the estimated effect on annual work hours in the first column.

Thus, the evidence presented so far is consistent with the hypothesis that occupational aspirations and attitudes affect labor supply independent of objective individual or labor market characteristics. The evidence is not conclusive, however, because the attitude and aspiration variables may be endogenous for either of two reasons. First, they could be simply acting as proxies for other attributes that may affect an individual's ability to find work, such as family background and unmeasured productivity characteristics. Suppose, for example, a sample member believes that his chances of becoming a manager are high because his father owns his own firm and plans to pass it on to his son at retirement. In this case, the causal relationship lies between parental characteristics and hours worked rather than between aspirations and hours worked. Independent of the connection through the father, managerial aspirations may have little, if any, impact on labor supply.

Second, attitudes and aspirations may be endogenous because past and current labor market experience have altered current views and expectations. Workers who have had trouble finding or keeping jobs in the past may, as a result, have both a lower current labor supply and less optimistic expectations about their future occupations. It is quite possible that attitudes and aspirations may be completely dependent on past labor market experience and not exert an independent effect. In either case the estimated coefficients may be biased because the included attitudes and aspirations are correlated with the error term in the labor-supply regressions.

In order to control as much as possible for the first endogeneity problem, we included in preliminary regressions (not reported here) a wide array of parental background characteristics and neighborhood and other influences on attitudes about work and jobs. Among these were parental education and occupation, whether the respondent lived in a broken family at age 14, and the extent to which family members, friends, teachers, community leaders, and others affected his beliefs about jobs and job search. None of these supplementary influences had any significant impact on labor supply, nor did they noticeably alter the effect of the included attitude and aspiration variables. Furthermore, regressions of the attitude and aspiration items on these supplementary factors indicated that they explain very little of the observed

variation in aspirations and attitudes. It is therefore unlikely that aspirations and attitudes are merely acting as proxies for background measures in the labor-supply equations estimated here.

It is also unlikely that the attitude and aspiration variables are proxies for unmeasured productivity characteristics. Such characteristics can be expected to affect wages as well as labor supply. The earnings regressions in the appendix show, however, that none of the attitude and aspiration variables is significant at the 5 percent level.

The most straightforward approach to control for the possibility that past labor supply affects attitudes and aspirations would be to include measures of these items prior to any significant labor market experience. Since all the NBER data were obtained from the single 1979 interview, this unfortunately was not possible. An alternative would be to develop an empirical model of the determination of attitudes and aspirations and then eliminate the contaminating impact of endogeneity by using instrumental variables. Unfortunately, extensive searching failed to produce variables that would be correlated with attitudes and aspirations but uncorrelated with the error terms in the labor-supply equations. Thus, using the NBER data alone, it is not possible to determine the extent of the endogeneity of attitudes and aspirations.

In order to address this issue as well as to determine whether attitudes and aspirations have the hypothesized impact for a sample of youths broader than the relatively restricted NBER group, we also analyzed a sample of black and white men aged 14 to 19 in 1966 taken from the NLS. Because the NLS data are longitudinal, it is possible to determine whether aspirations as of ages 17 to 19, prior to any significant labor market experience, affected subsequent labor supply three to six years later. As suggested earlier, the endogeneity problem with the NBER data largely derives from the fact that occupational aspirations and labor supply are measured as of the same date.

The results from the NLS labor-supply analysis are reported in table 10.4. Among blacks aged 17 to 19 in 1966, their occupational aspirations in 1966 had a significant effect on their weeks worked in 1972.⁴ This finding is unchanged by the inclusion of the percentage of postschooling weeks worked between 1967 and 1971, even though this variable would help to control for endogeneity by aspirations acting as a proxy for other variables.

The NLS sample of black men 17 to 19 years old differs considerably from the NBER 20–24 cohort because the latter is restricted to individuals living in low-income, inner-city areas of three large northeastern and midwestern SMSAs, whereas the former is a nationally representative sample of all youths of the relevant age group living in any SMSA. Furthermore, labor supply for the NLS group was measured as of 1972, whereas for the NBER sample it was 1979. Yet the magnitudes of the

Table 10.4 Estimated Coefficients from 1972 Weeks-Worked Regressions for NLS Men with Nonzero Work Hours

	Ages 17-19		Ages 14-16	
	Blacks	Whites	Blacks	Whites
Intercept	17.57 (26.70)	27.52 (19.25)	-68.16** (28.80)	32.43** (16.02)
In Wages (predicted)	-2.59 (5.73)	3.40 (3.39)	17.58** (5.80)	3.56 (2.93)
In Non labor Income	-.18 (.25)	-.27** (.13)	-.08 (.26)	.02 (.12)
Age	2.02 (1.48)	.19 (.69)	1.94 (1.65)	-.43 (.66)
Household Head	-1.35 (1.90)	1.33 (1.27)	-.04 (2.32)	.97 (1.05)
Professional or Managerial Worker	-1.76 (4.19)	-1.92 (1.94)	3.01 (4.62)	2.91** (1.70)
Clerical or Sales Worker	-1.29 (3.78)	-1.93 (2.09)	-4.31 (3.93)	2.12 (1.72)
Craftsman	-4.34 (3.32)	-.83 (1.96)	-7.40** (3.62)	1.31 (1.57)
Operative	-1.47 (2.52)	-2.36 (1.87)	-4.92* (2.95)	.07 (1.41)
Laborer, Service Worker, or Other	—	—	—	—
Percentage of Weeks Worked, 1967-71	.07** (.03)	.03* (.01)	.002 (.027)	.01 (.01)
Professional or Managerial Worker at Age 30	5.49** (2.55)	-1.17 (1.40)	5.92** (2.93)	1.55 (1.20)
Sales or Clerical Worker at Age 30	8.04** (3.60)	4.49 (3.33)	7.95* (4.24)	5.02* (2.77)
Craftsman at Age 30	6.48** (2.89)	-2.43 (1.79)	4.15 (3.85)	3.91** (1.52)
Operative at Age 30	.64 (3.37)	1.64 (2.54)	10.77** (4.17)	2.23 (2.27)
Laborer, Service Worker, or Other at Age 30	—	—	—	—
N	98	357	113	342
R ²	.20	.06	.29	.06

Note: Asymptotic standard errors are in parentheses. The symbol ** denotes significance at the 5 percent level and * denotes significance at the 10 percent level, all in a two-tailed test.

aspiration effects in the two samples are very similar. For example, the size of the NLS coefficient for sales or clerical aspirations (8.0 additional weeks per year) is comparable to that for the “white collar–excellent chance” variable in the NBER data (8.9 additional weeks per year). Moreover, the size of the NLS coefficient for craftsmen is within 25 percent of its NBER counterpart, and the impact of operative aspirations on weeks worked is insignificant in both the NBER and the NLS data.

The estimated aspiration coefficients for the younger black NLS sample generally support the findings for the older group and for the NBER sample. For example, professional-managerial and sales-clerical aspirations are significant at the 5 percent level and raise labor supply by five and nine weeks, respectively. Nevertheless, the pattern of coefficient sizes does not completely conform to the earlier results, indicating a relatively small impact of crafts aspiration and a relatively large impact of operative aspiration.

Racial differences in the effects of aspirations on labor supply are noteworthy. In the case of NLS white men aged 17 to 19 in 1966, the estimated coefficients are uniformly insignificant and, in some cases, not even of the expected sign. In the case of NLS white men aged 14 to 16 in 1966, only the crafts-aspiration coefficient is significant at the 5 percent level.

The insignificant coefficients of the aspiration variables in the NBER wage regressions provided evidence that occupational aspirations were not simply proxies for unmeasured productivity characteristics. The NLS wage regressions listed in the appendix replicate this finding. Furthermore, because the NLS data are longitudinal, an additional test of the extent to which aspirations are proxies for unmeasured opportunities can be made based on estimates of the objective probability of attaining the desired occupation. The NLS reports the respondents’ actual occupations in 1980, when the members of the older subsample were aged 31 to 33. Thus, using logit analysis, we can estimate the objective probability of obtaining the desired occupation or a better one. If the coefficients of the aspiration variables fall substantially with the inclusion of these estimates in the labor-supply equation, then the aspiration items can be interpreted as proxies for objective factors. If, on the other hand, the impact of the aspiration items is unaffected by such an addition, the case for aspirations measuring subjective phenomena rather than actual opportunities is strengthened.

The logit analysis to predict the actual occupation in 1980 is presented in the appendix.⁵ Table 10.5, however, reports the labor-supply results when the explanatory variables include the estimated probability of achieving the desired or a better occupation, based on the logit coefficients listed in the appendix and the respondent’s characteristics. The table shows that not only are the predicted values uni-

formly insignificant, but also they fail to alter significantly the aspiration coefficients estimated in table 10.4. This finding is not affected by changing the occupational attainment variable to an estimate based on a linear-probability equation instead of logit analysis or to a dummy variable for whether or not the respondent achieved the desired or a better occupation in 1980.

Besides questions measuring occupational aspirations, the NLS also includes items measuring the sense of efficacy similar to some of those in the NBER analysis referred to earlier. The estimated impact of these variables on labor supply is not reported here because these items did not exert any significant effect.

All of the results given above are subject to the qualification that there may be sample-selection bias present because each sample includes only respondents with positive work hours. This bias would result from confounding the effects of respondents' attitudes and aspirations on whether they worked and on the amount of time they worked. This bias is likely to be quite small in the case of the NLS 17-19 cohorts, since over 90 percent of each sample worked at least one week during the year. Attempts to correct the bias for this group using the Heckman sample-selection technique were unsuccessful because the parameters of the probit equations could not be precisely estimated. This is evidence that the included variables were relatively uncorrelated with whether the respondents worked. Attempts to correct the problem for the other groups were unsuccessful because of collinearity between the items included in tables 10.3 and 10.4 and the Heckman lambda term. Collinearity occurred when lambda was approximately equal to a linear combination of the included variables over the sample range, suggesting that nonlinearity of the inverse Mill's ratio alone is insufficient to identify the selection bias in these data.

10.5 Summary

Most previous studies of the labor-supply behavior of young men have attempted to account for the observed variation in work hours by examining differences in labor market conditions or differences in individuals' productivity characteristics. The results obtained in this analysis indicate that a young man's subjective attitudes and occupational aspirations have a large, significant effect on the hours they work, independent of such variations in objective factors. These effects are much stronger among black men than among white men and in the case of the former are relatively constant across widely varying data samples. Supplementary evidence from the NLS further suggests that observed effects of occupational aspirations are not merely a reflection of some spurious correlation but rather are causal factors altering labor supply.

Table 10.5 Estimated Coefficients from 1972 Weeks-Worked Regressions for NLS Men with Nonzero Work Hours (Regressions Include Objective Probability of Achieving Desired Occupation)

	Ages 17-19		Ages 14-16	
	Blacks	Whites	Blacks	Whites
Intercept	20.93 (26.93)	26.66 (19.30)	-57.28* (30.17)	33.84** (16.03)
ln Wages (predicted)	-3.07 (5.61)	3.40 (3.30)	15.74*** (5.82)	3.19 (2.96)
ln Nonlabor Income	-.17 (.25)	-.27* (.14)	-.07 (.26)	.02 (.13)
Age	1.96 (1.65)	.26 (.70)	1.58 (1.71)	-.53 (.67)
Household Head	-1.20 (1.92)	1.57 (1.51)	-.05 (2.34)	.03 (1.33)
Professional or Managerial Worker	-1.19 (4.53)	-1.90 (1.96)	3.48 (4.64)	3.00* (1.72)
Clerical or Sales Worker	-.79 (3.62)	-1.93 (2.09)	-4.66 (3.97)	2.24 (1.73)
Craftsman	-4.18 (3.46)	-.88 (1.97)	-8.10 (3.70)	1.55 (1.57)
Operative	-1.36 (2.59)	-2.40 (1.89)	-4.14 (2.99)	.18 (1.42)
Laborer, Service Worker, or Other	—	—	—	—
Percentage of Weeks Worked, 1967-71	.07** (.03)	.03* (.02)	.01 (.03)	.02 (.01)
Professional or Managerial Worker at Age 30	5.53** (2.59)	-1.15 (1.43)	5.97** (2.94)	1.41 (1.21)
Sales or Clerical Worker at Age 30	8.22** (3.68)	4.54 (3.35)	7.85** (4.28)	5.07* (2.77)
Craftsman at Age 30	6.51** (2.87)	-2.40 (1.82)	5.06 (3.54)	3.79** (1.53)
Operative at Age 30	1.09 (3.54)	1.77 (2.63)	10.88 (4.19)	2.01 (2.28)
Laborer, Service Worker, or Other at Age 30	—	—	—	—
Probability of Achieving Desired Occupation at Age 30	-1.06 (6.16)	-1.13 (5.90)	7.91 (7.80)	5.90 (5.28)
N	98	357	113	342
R ²	.20	.06	.30	.07

Note: Asymptotic standard errors are in parentheses. The symbol *** denotes significance at the one percent level, ** denotes significance at the 5 percent level, and * denotes significance at the 10 percent level, all in two-tailed tests.

Appendix

Table 10.A.1 Estimated Coefficients from Earnings Regressions for NBER Men with Nonzero Work Hours and No Schooling in Past Year

Independent Variable	In Hourly Earnings		In Weekly Earnings	
	Ages 20–24	Ages 16–19	Ages 20–24	Ages 16–19
Intercept	-.068 (.427)	-.488 (.916)	2.725*** (.444)	2.627*** (.949)
Years of Schooling	.133*** (.030)	.111 (.078)	.140*** (.032)	.138* (.080)
Work Experience	.041*** (.020)	.098 (.082)	.055*** (.021)	.092 (.085)
Lives in Chicago	-.003 (.076)	-.173 (.147)	.001 (.079)	-.232 (.153)
Lives in Philadelphia	.022 (.075)	-.029 (.154)	.060 (.078)	-.092 (.159)
Lives in Boston	—	—	—	—
Union at Workplace	.248*** (.066)	-.179 (.154)	.277*** (.069)	-.085 (.160)
Professional or Managerial Worker	.153 (.137)	-.394 (.479)	.180 (.142)	-.193 (.496)
Clerical or Sales Worker	.044 (.095)	-.103 (.181)	.097 (.098)	-.228 (.188)
Craftsman	.186** (.090)	.099 (.177)	.183** (.093)	.241 (.184)
Operative	.055 (.076)	.079 (.160)	.082 (.079)	.194 (.166)
Laborer, Service Worker, or Other	—	—	—	—
Attitude 1: Most Friends Are Unemployed	-.044 (.067)	-.215* (.126)	-.047 (.069)	-.245* (.130)
Attitude 2: Unemployed Could Find Work If They Wanted to	.001 (.063)	-.095 (.121)	.001 (.065)	-.017 (.125)
Attitude 3: Having a Good Education Is Very Important	-.099 (.074)	-.075 (.146)	-.065 (.077)	-.154 (.151)
Attitude 4: Working at a Job Is Very Important	.049 (.096)	.215 (.200)	.076 (.100)	.281 (.208)
Attitude 5: Religion Plays Strong Role	-.035 (.065)	.047 (.125)	-.054 (.008)	.034 (.130)
White-Collar at Age 30, Excellent Chance	.031 (.124)	-.188 (.249)	.057 (.129)	-.049 (.258)
White-Collar at Age 30, All Others	-.065 (.098)	-.051 (.185)	-.055 (.102)	.045 (.191)

Table 10.A.1 (continued)

Independent Variable	In Hourly Earnings		In Weekly Earnings	
	Ages 20–24	Ages 16–19	Ages 20–24	Ages 16–19
Crafts at Age 30, Excellent Chance	.071 (.152)	.218 (.258)	.147 (.158)	.245 (.267)
Crafts at Age 30, All Others	–.100 (.115)	–.032 (.202)	–.138 (.119)	.094 (.209)
Operative at age 30	.006 (.121)	.049 (.225)	.087 (.126)	.205 (.233)
Service Worker, Laborer, or Other at at 30	—	—	—	—
N	507	194	507	194
R ²	.09	.10	.10	.13

Note: Asymptotic standard errors are in parentheses. The symbol *** denotes significance at the one percent level, ** denotes significance at the 5 percent level, and * denotes significance at the 10 percent level, all in a two-tailed test.

Table 10.A.2 Estimated Coefficients from In Weekly Earnings Regressions for NLS Men with Nonzero Work Hours

Independent Variable	Ages 17–19		Ages 14–16	
	Blacks	Whites	Blacks	Whites
Intercept	3.249*** (.831)	3.769*** (.646)	2.406*** (.643)	4.329*** (.399)
Years of Schooling	.072 (.048)	.085** (.087)	.158*** (.044)	.032 (.027)
Work Experience	.110* (.059)	.029 (.040)	.043 (.054)	.017 (.033)
Lives in South	–.236** (.112)	–.155* (.095)	–.009 (.084)	–.023 (.058)
Union at Workplace	.159 (.129)	.167** (.082)	.090 (.100)	.393*** (.061)
Professional or Managerial Worker	.463** (.207)	.122 (.125)	.130 (.177)	.115 (.088)
Clerical or Sales Worker	.292** (.174)	–.253** (.124)	.089 (.150)	.015 (.088)
Craftsman	.162 (.176)	.192 (.124)	–.194 (.144)	.117 (.078)
Operative	.035 (.137)	.102 (.121)	.282*** (.098)	.002 (.071)

Table 10.A.2 (continued)

Independent Variable	Ages 17-19		Ages 14-16	
	Blacks	Whites	Blacks	Whites
Laborer, Service Worker, or Other	—	—	—	—
Percentage of Weeks Worked, 1967-71	-.001 (.002)	.003*** (.001)	.002* (.001)	.002** (.001)
Professional or Managerial Worker at Age 30	.040 (.141)	-.138 (.092)	.147 (.112)	-.005 (.061)
Sales or Clerical Worker at Age 30	.246 (.190)	-.097 (.217)	-.077 (.171)	-.161 (.136)
Craftsman at Age 30	.055 (.160)	-.162 (.111)	.288** (.122)	.048 (.077)
Operative at Age 30	.013 (.181)	-.131 (.167)	.165 (.165)	-.183 (.116)
Laborer, Service Worker, or Other at Age 30	—	—	—	—
N	98	357	113	342
R ²	.23	.12	.32	.16

Note: Asymptotic standard errors are in parentheses. The symbol *** denotes significance at the one percent level, ** denotes significance at the 5 percent level, and * denotes significance at the 10 percent level, all in a two-tailed test.

Table 10.A.3 Logit Estimates of Probability of Achieving the Desired or a Better Occupation by 1980 for NLS Men Ages 17-19 in 1966

Independent Variable	Blacks	Whites
Intercept	-7.911 (5.868)	-1.979 (2.328)
Years of Schooling	.170 (.125)	.156*** (.047)
Age	.265 (.309)	.031 (.124)
Household Head in 1971	-.050 (.496)	.561** (.216)
Father's Occupation: White-Collar	-.106 (1.199)	-.017 (.303)
Father's Occupation: Craftsman or Operative	-1.232** (.502)	.501* (.283)

Table 10.A.3 (continued)

Independent Variable	Blacks	Whites
Father's Occupation: Laborer, Service worker, or Other	—	—
Mother's Occupation: White-Collar Worker	1.214 (1.031)	.036 (.226)
Mother's Occupation: Crafts or Operative	.645 (.837)	.045 (.347)
Mother's Occupation: Laborer, Service worker, or Other	—	—
Father's Years of Schooling	.087 (.105)	-.052 (.043)
Mother's Years of Schooling	-.019 (.124)	-.026 (.047)
Don't Know Father's Education	.425 (1.005)	-.509 (.531)
Don't Know Mother's Education	.492 (1.296)	.404 (.652)
Score on Rotter Internal-External Scale	.092 (.125)	-.064 (.046)
Rotter Score Missing	.260 (1.227)	-.598 (.423)
N	88	442

Note: Asymptotic standard errors are in parentheses. The symbol *** denotes significance at the one percent level, ** denotes significance at the 5 percent level, and * denotes significance at the 10 percent level, all in a two-tailed test.

Notes

1. This is not the only "story" one could tell to rationalize the inclusion of aspirational or attitudinal measures in a labor-supply function. We could instead hypothesize that workers act as Bayesian statisticians, continually updating their estimates of the permanent wage, but starting with different priors for each estimate. It is not clear how one could observationally distinguish the cognitive dissonance hypothesis from the Bayesian one.

2. The labor-supply equations are identified by the inclusion of schooling, union at the workplace, and city of residence in the wage regressions and their exclusion here. The wage regressions are listed in the appendix.

3. Other studies of the labor supply of young men (for example, Boskin 1973; Ellwood 1982) also find a negative effect of nonlabor income but a negative or insignificant uncompensated wage effect.

4. As in the case of the NBER sample, the 1966 NLS interviews ascertained whether the respondent thought his chances of attaining his desired occupation were excellent, good, fair, or poor. Nevertheless, because of the relatively small number of blacks aged

17 to 19 in 1966, it is not possible to obtain separate coefficient estimates of the effects of aspirations by this expected likelihood.

5. The dependent variable for the logit analysis was coded as one if (1) the desired occupation was professional or managerial and the attained occupation was professional or managerial; (2) the desired occupation was crafts or clerical and the attained occupation was professional, managerial, clerical, or crafts; or (3) the desired occupation was operative and the attained occupation was professional, managerial, clerical, crafts, or operative. The dependent variable was coded as zero otherwise.

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Comment Michael J. Piore

This paper constitutes an attempt to expand the conventional behavioral model used in labor economics to include attitudes and aspirations.

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The empirical literature on this topic is thin; the authors cite only two previous papers. The theoretical literature is more extensive but extremely diffuse, spread out over a number of different disciplines. Moreover, its relationship to the conceptual categories we use in economics is ambiguous and confused. The paper is therefore welcome, but like most pioneering efforts, it raises more questions than it answers. I will focus on four of these.

First, it is important to note the exact character of the data. The most extensive data on attitudes and aspirations are drawn from the NBER sample of inner-city black youth. The survey of that sample was conducted at only one time; therefore, labor market behavior was measured at the same time as the attitude and aspiration variables. The supplementary data from the NLS are measures of behavior six years after the aspiration variable was measured, but they contain no attitudinal information. The NLS does, however, include both black and white men.

Second, the authors emphasize that both the attitude and aspiration variables yield significant results, but the findings they report but do not emphasize are a little different and a good deal more interesting. The attitude and aspiration variables are significant in explaining weeks worked. But they do not appear to explain either wages or work hours per week. The two sets of variables therefore seem to measure mainly how hard the youths looked for jobs and how successful they were at keeping the jobs once they found them. Also interestingly, the aspiration variables affect black behavior but apparently not white behavior (we do not have information on white attitudes).

Third, exactly what aspiration and attitude variables measure is unclear. The variables themselves are not drawn from any specific theoretical literature and have a rather ad hoc character about them. The authors perform some tests and find the variables uncorrelated with family background characteristics or the attitudes of neighbors, teachers, and others. In the longitudinal sample, the aspirations seem to have little to do with subsequent success and thus appear to be subjective not objective. The authors make reference early in the paper to cognitive dissonance theory, but that theory seems, at least to me, to be essentially tautological.

The inability to interpret the variables is no small problem in examining a topic of study so important to public policy: One cannot say whether or not it would aid the economic performance of these youths to inculcate in them "good" aspirations and attitudes or, if so, how one might go about doing so. The authors make no such effort to do so, and their reticence on this score is an indication of their integrity as scholars.

Finally, I tend to believe that the labor market behavior of black youths reflects a fear that they will be trapped for life in the menial

jobs that are generally open to youth in the U.S. labor market but that whites have historically left behind as they matured and blacks have not. The data seem consistent with this view: Black youths who think of themselves as moving on to higher-level jobs accept and hold the jobs that are available to them as youths, whereas black youths who think they will remain in those jobs permanently have a much weaker attachment to them. White youths exhibit behavior that is little influenced by aspirations.