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1 Black Youth Nonemployment: Duration and Job Search

Harry J. Holzer

1.1 Introduction

Total nonemployment is often decomposed for analytical purposes into two components: the *frequency* of nonemployment spells and the *duration* of an average spell. The frequency is the total number of spells and reflects the rate of employment turnover (quits and layoffs), while duration reflects the length of time before employment is gained or regained. Although most analyses of the youth employment problem among blacks and whites over the past decade have stressed job turnover and the frequency of unemployment spells, Clark and Summers (1982) showed that the duration of these spells is a crucial component of observed unemployment rates among youths and adults alike.

This study investigates why the duration of nonemployment spells experienced by young black men is generally longer than that experienced by young white men. The analysis focuses particularly on reservation wages as determinants of duration. Reservation wages, defined as the lowest wages individuals are willing to accept for employment, are stressed in the job-search literature as the key determinants of the unemployment duration chosen by individuals on the supply side of the labor market. Of course, labor demand can also affect the duration of nonemployment for young blacks. The key determinants on this side of the market are aggregate demand, skills, and discrimination. The direct effects of these forces on nonemployment duration among young blacks and whites are also considered below, as are the effects of low levels of demand on the choices of reservation wages made by each group.

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The importance of analyzing the duration of nonemployment spells and reservation wages in studying black youth nonemployment (that is, unemployment or time out of the labor force) has already been demonstrated. Clark and Summers (1982) pointed out that the duration of nonemployment is significantly longer among young blacks than among young whites. They also found that differences in unemployment and nonemployment rates between young blacks and whites primarily reflect differences in probabilities of gaining employment among those without jobs, rather than differences in probabilities of becoming nonemployed. Thus, by explaining the lengthy duration of unemployment and nonemployment among young blacks, we will be able in turn to explain much of the huge rates of nonemployment among young blacks generally.

Moreover, by focusing on reservation wages as a determinant of duration, this study should shed some light on the controversy over the relative willingness to work of young blacks and whites that has arisen not only in recent studies by social scientists, but also in the popular press. In a few studies, young blacks appeared to be more willing than young whites to accept certain low-wage jobs, even after having controlled for personal and family background characteristics. But others have stressed the reluctance of young blacks to accept low-wage jobs that are considered "dead end" or "menial."¹ According to adherents of this latter view, a younger cohort of blacks developed a new consciousness or a new set of expectations as a consequence of the civil rights movement, and they now shun those low-status jobs to which large numbers of them had been relegated in the past. This point of view also stresses the role of crime as a superior source of income and status among young blacks.

Two primary issues form the basis of this analysis of reservation wages, as indicators of the willingness to accept certain kinds of work, and the duration of nonemployment among young blacks and whites. The first is the potential difference in reservation wages between young blacks and whites; the second is the impact of these reservation wages on the duration of unemployment within each group. The paper will also examine some determinants of reported reservation wages, but the study does not attempt a complete, structural model of reservation-wage formation. The data used in the analysis are from the youth cohort of the National Longitudinal Surveys (NLS) and the NBER Survey of Inner-City Black Youth.

There are four remaining sections in the paper. Section 2 presents a general model for the analysis of nonemployment duration and reservation wages; a discussion of some potential biases in the estimation; and a description of the data used for the estimation. The third section presents the empirical evidence on the reservation wages of young blacks and whites. Differences in results among the various reservation-

wage measures are explained, and some evidence is presented on the relationship between reservation wages, the characteristics of the jobs individuals seek, and the kinds of low-wage, low-skilled jobs that are more readily available to black youth.

The fourth section explores the effects of reported reservation wages on subsequent labor market outcomes for young blacks and whites, namely, the duration of nonemployment spells and wages received on the next job. Some separate wage equations are also estimated for different categories of jobs ultimately received. These equations also show which of the various reported reservation wages have the most predictive power with regards to the labor market. Finally, the fifth section summarizes the results presented earlier and discusses implications for employment policy.

1.2 Models, Data, and Econometric Issues

To understand the relationship between nonemployment duration, job-search characteristics such as reservation wages and search effort, and demand more generally, the following identity is often used:

$$(1) \quad E(DN)_t \equiv 1/P_{ne,t} \equiv 1/[P(Off)_t \cdot P(Acc|Off)_t],$$

where $E(DN)_t$ is the expected duration of a completed spell of nonemployment beginning in period t ; $P_{ne,t}$ is the transition probability, or the probability that the individual will move from nonemployment to employment within the specified time period; $P(Off)_t$ is the probability of receiving a job offer; and $P(Acc|Off)_t$ is the conditional probability of accepting the offers received.

The probability of young blacks receiving offers of employment reflects, among other things, the demand for their labor that exists in the labor market. Among the factors that shift this demand is the level of aggregate demand in the local labor market, which includes the business cycle and the strength of the local economy; this factor has been shown to have strong effects on employment among both black and white youth.² A further determinant of the demand for young black labor may be discrimination. Blacks may be perceived as having fewer skills than whites and therefore may face greater difficulty in obtaining employment. Young blacks may also have less access to certain kinds of employment than do young whites, for the following reasons. Blacks who live in inner-city areas may have difficulty traveling to work in firms that are located in the suburbs; they may have less information about job vacancies than do young whites; they may have fewer personal "connections" in firms where vacancies arise, and finally, their actual skill levels may influence the probability of receiving offers in the labor market. Although these demand-shift factors may determine the probability of *potentially* receiving an offer, the probability of *ac-*

tually receiving one also depends on the intensity of the individual's search effort.

The probability of *accepting* offers depends exclusively on the level of the individual's reservation wage relative to the offered wage. Offered wages are embodied in a distribution $f(w^o)$ that is conditional on having received an offer and that also reflects on the demand-shift factors mentioned above. Jobs are accepted only when $w^o > w^r$, where w^r is the reservation wage. The expected duration of unemployment for an individual with search effort $SE_{i,t}$ and reservation wage $w^r_{i,t}$ is:

$$(2) \quad E(DN)_{i,t} = \frac{1}{\pi(SE_{i,t}) \cdot [1 - F(w^r_{i,t})]},$$

where π is the function relating search effort to offer probabilities, and F is the cumulative distribution function of offered wages.

This equation assumes, of course, that reservation wages and search effort will remain constant over the entire expected duration of nonemployment. If this is not the case, the transition probabilities and expected durations for subsequent periods will change and will be reflected in the observed durations of nonemployment.

Expected wages are determined for a given offered-wage distribution and reservation wage in the following manner:

$$(3) \quad E(w)_{i,t} = \frac{w^r \int_{w^r}^{\infty} w f(w) dw}{w^r \int_{w^r}^{\infty} f(w) dw},$$

where each possible wage above the reservation wage is weighted by the probability of receiving it. This weighted sum is divided by the sum of the weights so that the sum of the weights equals one.

Having observed how reservation wages interact with offer probabilities and offered wages to determine the expected durations of nonemployment and received wages, let us now turn to the determinants of reservation wages. It is fairly standard in the job-search literature to show that reservation wages are in part determined by the following factors:

$$(4) \quad w^r = w^r(\pi, f(w), y, d, H),$$

where y represents an individual's nonwage income sources, d represents his discount rate, and H represents his time horizon for working.³ Nonwage income raises reservation wages by lowering the costs of nonemployment, while greater demand-side factors and longer horizons raise reservation wages by increasing the expected benefits of demanding a higher wage for employment. Higher discount rates should lower these expected benefits and therefore lower reservation wages. Finally, both the mean and the variance of the offered-wage distribution $f(w)$ have been shown to have positive effects on reservation wages.

This basic model can be extended in a number of ways to make it more pertinent to white and black youth. For instance, if individuals do not have rational expectations of offer probabilities and offered wages, their subjective expectations rather than the actual demand-side characteristics will determine their reservation wages; and overly optimistic expectations that adapt slowly over time may lead to high reservation wages. Furthermore, an individual's reservation wages can vary across jobs if the nonwage characteristics of these jobs vary and if these nonwage characteristics enter the individual's utility function.⁴ Thus, the reservation wages for jobs with unpleasant characteristics may exhibit demands for "compensating differentials."

Models in which utility instead of income is maximized also allow tastes for leisure to affect reservation wages. These models incorporate labor-supply as well as job-search factors and can therefore be used to explain search intensity and labor-force participation.⁵ Thus, the reservation wages of people who are not always actively searching for employment is yet another factor to consider.

Finally, these models often imply a declining reservation wage as the spell of nonemployment proceeds, rather than the constant one assumed above. This decline can be caused by a number of factors, including declining assets or flows of outside income, the declining marginal value of leisure, adapting expectations, and systematic search behavior, by which higher wage offers are pursued earlier and lower ones later.

The models of reservation-wage formation and nonemployment duration discussed here suggest that a set of recursive equations can be estimated empirically—equations in which the demand for individuals' labor and other factors determine their reservation wages, which in turn determine subsequent spells of nonemployment and subsequent wages. In particular, the following equations are estimated here:

$$(5) \quad DN_{t+n} = DN(X_t, w_t^r, S_t),$$

$$(6) \quad W_{t+n} = W(X_t, W_t^r),$$

$$(7) \quad w_t^r = w^r(X_t),$$

where DN_{t+n} is the duration of the completed spell of nonemployment from the (1979) survey date onward; W_{t+n} is the subsequently received wage; w_t^r is the reservation at that time; S_t is a measure of search effort; and the X_t terms are the determinants of the demand for an individual's labor.

Except for these labor-demand factors, the other determinants of reservations wages outlined in the foregoing discussion are omitted from equation (7). For example, many of these factors can be considered endogenous with respect to reservation wages, such as the many sources of nonwage income ranging from government programs to il-

legal activities. The same can be said about earlier spells of nonemployment.⁶ Including these endogenous variables as determinants in the model would lead either to serious biases or to a simultaneous-equations system with serious identification problems. For these and other reasons, the goals of this paper are simpler: to compare the reservation wages of young blacks and whites, controlling for differences in demand-side factors and to evaluate the effects of these reservation wages on the subsequent wages and nonemployment spells for each group.

Nonetheless, certain other determinants of reservation wages are examined below in order to explain differences in responses by the same individual to different reservation-wage questions. Summary and tabular data provide evidence, for instance, on occupational expectations and work horizons. The effect of nonwage job characteristics are also considered, since the surveys used below asked respondents to choose among different reservation wages. Also introduced is some outside evidence on the role of nonwage income.

It should also be noted here that equation (5) is essentially a demand function; and this recursive model achieves its identification by including direct observations of the reservation wage rather than of the received wage as the independent variable in the duration equation. The reservation wage itself is a function of the expected demand-side determinants of duration and subsequent wages, but not of subsequent duration or wages per se, thereby ensuring its exogeneity in equations (5) and (6).

The above equations are estimated separately for blacks and whites in all cases. Racial differentials in such variables as reservations wages, when controlling for personal characteristics in X_t , are obtained by using estimated coefficients from the equations for whites with mean characteristics of blacks to obtain predicted reservations wages for whites having the same characteristics as blacks. The differences between these predicted measures and the actual ones for blacks are considered estimates of the racial differential.

Most of the econometric issues associated with estimating equations (5) through (7) are discussed below in the presentation of the empirical results. But a few of the more salient problems, as well as the methods for dealing with them, deserve mention here.

For instance, in comparing the reservation wages of blacks and whites, it is crucially important that the list of determinants of the demand for an individual's labor, represented by X_t , be reasonably complete. If it is not, unobserved characteristics that are positively correlated with wages and employment but negatively correlated with being black may bias downward any measure of the black-white differential in reservation wages.

To address this problem, we include estimates of various specifications of equation (7). In some, the X_i terms reflect a set of specific determinants of wages and employment, including such human capital variables as age, experience, schooling, and “knowledge of the world of work”;⁷ background variables, such as household income and the presence of a library card at home; and other individual characteristics, such as region, residence in an urban area, and marital status. But since this set is bound to be incomplete, wages on the most recent job or weeks worked over the past year are used instead as controls in other equations. The former serves as a proxy for offered wages, and the latter, as a proxy for offer probabilities. Of course, received wages and weeks worked reflect expected wages and nonemployment durations, which are themselves conditional on past reservation wages. These variables are therefore instrumented on the exogenous X_i and appear only as predicted values in equation (7).

These predicted values allow the inclusion in the equations of individuals who would otherwise report wages as missing due to their lack of employment in the previous year. But since the two predicted variables are functions of the same underlying determinants, they are too highly correlated to be included together in any single equation; they therefore appear in separate versions of equation (7). The underlying X_i variables appear separately as well for purposes of identification, and the predicted wages appear in equation (6) as controls for the offered-wage distribution. Weeks worked do not appear in the equations, since wages are conditional on an offer having been received; proxies for offer probabilities are therefore not relevant here.

As for durations of subsequent spells represented in equation (6), the coefficient on the reservation wage is likely to be downward biased by the positive correlation between unobserved characteristics and reservation-wage measures and by the negative correlation between those characteristics and the durations of spells. In fact, this downward bias was serious enough to produce theoretically incorrect negative coefficients on reservation wages for whites in some versions of that equation.

It should also be noted that the source of heterogeneity in equation (5) is the correlation between unobserved characteristics and reservation wages and durations, whereas in equation (7) it is their correlation with reservation wages and race. Thus, the controls that are appropriate in the two equations may differ. In fact, an expanded group of X_i variables, described below, enters directly in equation (5); the inclusion of that group in the equation is the most successful way to rid it of downward bias. On the other hand, predicted wages and weeks worked were more successful in dealing with unobserved racial differences in equation (7). In short, the results reported below are some-

times based on equations that use different controls for labor demand; these are pointed out in each case.

A further source of downward bias in the estimated coefficients on reservation wages in equations (5) and (6) is the error that may exist in self-reported measures of reservation wages. This possibility could have very serious implications for much of the empirical work presented below, since differences in mean reservation wages are an important finding that could be undermined if the self-reported measures are not valid determinants of behavior. In fact, several of the reservation-wage measures reported below yield somewhat different results on the relative reservation wages of blacks and whites. But by estimating equations (5) and (6) separately for each of the reported measures, we can test their effects on behavior and thereby determine their "validity" or relative degrees of error as shown in section 1.4.

We must also consider some of the potential selection biases inherent in the analysis as well as the sampling techniques employed. Since spells of nonemployment observed prior or subsequent to the survey date existed only for those who were nonemployed at that time, the survey does not capture previous nonemployment spells for those currently employed and nonemployed, raising several selection issues. First, Akerlof and Main (1980) have shown that individuals with multiple spells of nonemployment in a year account for a great deal of observed nonemployment. The focus in the present analysis on one spell per person thus overlooks the issue of multiple spells. Second, Kaitz (1970) has pointed out that omission of previous completed spells can bias the estimated mean duration of spells in two directions: A "length" bias exists whereby short spells are less likely to be observed than longer ones, creating an upward bias in mean duration; and an "interruption" bias also exists whereby only a truncated part of any given spell is observed, creating a downward bias. This issue is addressed below by comparing summary evidence of current spells with evidence of previous spells that are calculated from retrospective employment histories in the NLS surveys.

Selection with respect to employment status can also bias the coefficients of all of the estimated equations. Heckman (1979) demonstrated that the correlation between the error term and the regressors of an equation induced by sampling depends on the correlation between the determinants of the sampling variable and those of the dependent variable of the analysis. Since individuals experiencing short nonemployment spells are more likely to be currently employed than those having long spells of nonemployment, spell duration can be considered a determinant of observed employment status; and since reservation wages are the hypothesized determinants of spell duration, they are also determinants of employment status. Thus, the dependent variables of

equations (5) and (7) are themselves the determinants of the samples used to estimate them, and the correlation bias described above may be quite severe.

To deal with these potential biases, the analysis presents the reservation wages of both the employed and nonemployed in each racial group. The analysis also employs the inverse Mills ratio to correct for potential selection problems in some of the wage and reservation-wage equations that appear below.

A few other sampling issues remain. Students are omitted from all the estimates reported below because their labor market experiences often reflect a different set of factors than those of nonstudents. Results not reported here, however, show similar ratios of reservation wages to received wages among students and nonstudents of each racial group in the NLS; thus, the omission of students is unlikely to be a major source of selection bias.

The samples here include some individuals who had not searched for work in the month before the survey, since the discussion above indicates that search theory can be applied to those who are not always actively looking for work. Nevertheless, the relevant questions in the NLS were asked only of individuals who had searched in the past month or who intended to search in the coming year; those permanently out of the labor force are thus not included here.

A final sampling issue is the oversampling of low-income whites in the NLS. Because we are interested in estimating relationships for the black and white populations rather than those nonrandomly selected samples, and because estimated relationships may vary across income groups, all the estimates below are weighted by sample weights to produce populationwide estimates. Although this technique may induce some heteroscedasticity, which would bias the estimated standard errors, the coefficients are unbiased estimates of populationwide relationships. The decision to weight the samples rather than stratify them by income was based on the small sample sizes used below.

As noted above, two major data sets have been used in estimating the equations: the youth cohort of the NLS and the NBER Survey of Inner-City Black Youth. The NLS conducted a nationwide survey of young men and women aged 14 through 21 in 1979. The oversampling of racial minorities in this survey yields a sufficiently large sample of young black men (1,380) for comparison, with the sample of young white men (3,081). Since the NLS also oversamples low-income whites, all the estimates here are weighted by the sample weights to achieve a true nationwide sample within each racial group.

Among the variables included in the NLS data set are reported reservation wages, search effort in the past month, and retrospective histories that give starting and ending dates for each period of employ-

ment. The 1979 and 1980 panels are both available. Thus, for individuals who were nonemployed at the time of the 1979 survey, the durations of subsequent spells and wages later received on the next job are available in the 1980 survey; these appear as the dependent variables of equations (5) and (6). Durations for previous spells are within each panel. The NLS also provides extensive information on family background and personal characteristics. Finally, occupational aspirations for the future as well as occupations currently sought are useful indicators of the accuracy of individuals' labor market expectations.

The NBER survey was conducted between November 1979 and May 1980 among 2,400 young black men, aged 16 through 24, who were living in the inner-cities of Boston, Chicago, and Philadelphia. The interviews were limited to inhabitants of city blocks with at least 70 percent black residents and 30 percent families having incomes below the poverty line. The questions in the survey focused on the daily activities of both the employed and nonemployed; their family backgrounds; their job-search behavior and experiences, including reservation wages, number of rejected offers, offered wages, and time spent and methods used while searching; their retrospective work histories for the preceding 12 months; their income sources; their participation in illegal activities; and their alcohol or drug use. The usefulness of the NBER survey as a supplement to the NLS, which provides the bulk of the black-white comparisons, lies in its focus on northern inner-city blacks, who experience the greatest youth employment problems in the nation; the direct comparability of many of the questions in the NBER survey to those in the NLS (after which some of the former were modeled); and the inclusion in the NBER survey of other questions, not duplicated elsewhere, that investigate factors that may explain the unemployment situation among young blacks. Together, the two surveys therefore allow a good comparison of young blacks and whites nationwide, as well as an additional look at a group of young blacks whose employment problems are especially severe.

1.3 Relative Reservation Wages for Blacks and Whites: Controlling for Demand Characteristics

This section presents empirical evidence from the NLS and NBER survey on the relative reservation-wage levels of young blacks and whites. Tables 1.1 and 1.2 present summary evidence comparing various reported reservation-wage measures to the received wages of young blacks and whites. These comparisons provide a crude measure of reservation wages relative to offered wages, for which we have no data. The next two tables indicate the distributions of occupations sought and held by these groups and their relationships to the reported reser-

vation wages. They show that individuals report quite different reservation wages according to the characteristics of the jobs to which they pertain. Some differences in reservation wages also appear to result from differences in the formats of the questions used to gauge them, as described below. Later in this section, tables 1.5, 1.6, and 1.7 show results from the equations in which wages, weeks worked, and other characteristics control for a broad range of demand-side factors that determine the relative reservation wages of blacks and whites.

Tables 1.1 and 1.2 present summary statistics on various reported reservation-wage and received-wage measures in the NBER survey and the NLS. The first table shows the means and standard deviations of received wages and reservation wages for jobs the respondents were seeking or aspired to more generally; the histograms below also present the full distributions of many of these variables. The second table presents frequencies of the reservation wages for specific jobs, such as dishwashing and factory work, that were designated in the survey.

The reservation wages for the NLS data presented in table 1.1 reflect responses to the question, "What would the wage (or salary) have to be for you to be willing to take it?" which follows the question, "What type of work have you been looking for?" or "What type of work will you be looking for?" among those who intended to seek work in the coming year. The reported reservation wage is therefore the "job sought," where that job was allowed to vary across individuals. The responses were also open-ended: Respondents could state any wage rate they wished instead of answering "yes" or "no" to specific rates listed in the survey. The questions were asked of both the employed and the nonemployed who were seeking work or who intended to seek work that year, and the questions were asked in both the 1979 and 1980 surveys.

The reservation wages for the NBER data in table 1.1 also refer to jobs that vary across individuals. One question states, "Suppose you were offered a job of the type that you are looking for," and then states different travel times that would be necessary to get to and from work. For each time, the respondent was asked whether he would accept the job at \$2.50 per hour and then at rates that increased by .50 each until the respondent found an acceptable one. Thus, unlike the NLS version of this question, the one in the NBER survey used a closed rather than open-ended format. The NBER data for "job sought" reservation wages in table 1.1 indicate the wages chosen at the lowest travel time of 30 minutes.

Another series of questions in the NBER survey read: "Say that for some reason you *had* to get (a job/another job) right now . . . what would be the best job you think you could get?" "How much per hour do you think you would earn on that job?" "If you were offered that

Table 1.1 Means and Standard Deviations of Reservation Wages and Received Wages; NLS and NBER Samples

	NLS					
	Reservation Wages for Job Sought		Received Wages; Most Recent Job		Ratio of Reservation to Received Wages	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
Nonemployed, 1979–80	4.59 (1.96)	4.47 (2.21)	4.75 (2.76)	4.00 (2.20)	.966	1.118
North	4.73 (1.85)	4.51 (1.77)	5.05 (2.96)	3.91 (1.88)	.937	1.153
South	4.31 (2.22)	4.45 (2.54)	4.02 (1.98)	4.07 (2.45)	1.072	1.093
Employed, 1979–80	6.01 (3.05)	5.40 (2.95)	5.13 (2.25)	4.26 (1.86)	1.172	1.268
Full Year	6.18 (3.06)	5.29 (2.36)	5.32 (2.26)	4.30 (1.88)	1.162	1.226
Part Year	5.71 (3.00)	5.66 (3.83)	4.76 (2.16)	4.19 (1.82)	1.120	1.351
Nonemployed, 1979	4.39 (1.95)	4.23 (2.41)	4.23 (2.97)	3.85 (2.41)	1.038	1.099
	Reservation Wages for Job Sought		Received Wages; First Job in Subsequent Year			
	Whites	Blacks	Whites	Blacks		
Nonemployed, 1979 Work in Subsequent Year	4.36 (1.86)	4.20 (2.60)	4.73 (2.37)	4.33 (2.03)		
	NBER, Blacks Only					
	Reservation Wages			Received Wages		
	For Job Sought	For Best Job Attainable	For Any Job	Most Recent Job		
Nonemployed	3.61 (1.26)	3.64 (1.58)	3.40 (1.11)	3.98 (1.98)		
Employed	4.44 (1.43)	4.59 (1.85)	3.98 (1.19)	4.34 (1.52)		
	Ratio of Reservation Wages to Received Wages					
	For Job Sought	For Best Job Attainable	For Any Job			
Nonemployed	.907	.915	.854			
Employed	1.023	1.058	.917			

Note: Only nonstudents included in both the NLS and NBER samples in all tables. Total sample sizes in the 1979–80 NLS are 1,599 for all employed whites with wages and 1,130 for those with reservation wages. Comparable numbers are 350 and 491 for nonemployed blacks. Sample weights are used in all calculations using the NLS. In the NBER Survey, sample sizes are 475 for employed and 821 for nonemployed young blacks. Reservation wages in the NLS are defined only for those who sought employment in the past month or intended to seek it in the next year. Wages received in both surveys are for those who were employed in the past year.

job tomorrow would you take it if it paid \$———?” In the last question, the same wage rates were used as those in the question in the preceding paragraph. Although one might expect the 30-minute travel time designated in the earlier question or the stipulation of “having to get a job right now” in the latter to bias the responses in different ways, the responses were generally quite similar.

A final question asked the respondent to list the “lowest hourly pay you’d be willing to take on any job right now,” and these responses are also included in table 1.1. As was the case with reservation wages for “sought job” and “best job,” responses to this question were open-ended but directly followed the others in sequence. All questions were asked of all individuals, both employed and nonemployed, in the sample.

Several interesting findings emerge from table 1.1. Perhaps the most striking is that the reported reservation wages for jobs sought by blacks in the NLS are similar to those reported by whites in an absolute sense, but blacks’ are generally higher relative to their previously or currently received wages than those of whites. For the total sample of nonemployed, the ratio of reservation wages to received wages is 15.2 percent higher among blacks than whites. This black-white difference is higher in the North than in the South; but even for in the South, the ratio for the black youths is well above that for northern whites, who constitute three-fourths of the total white sample.

Of course, we would prefer to have data on offered wages rather than received wages for this comparison, but the former were not observed. As mentioned above, received wages are endogenous with respect to reservation wages because of the truncation of the offered-wage distribution from below by previous reservation wages—the higher the previous reservation wage, the higher the received wage and the lower the ratio of the two. Thus, the ratio of reservation wages to offered wages is likely to be even higher among blacks. These measures also ignore blacks’ lower probability of receiving offers; therefore, the level of reservation wages relative to the overall demand for blacks is presumably even higher.

Most of the analysis in this paper concerns only those currently nonemployed, since only they had the spells of nonemployment at the time of or subsequent to our observations on reservation wages. But as noted above, selection based on employment status creates the possibility that the individuals with lower reservation wages who had shorter nonemployment spells in the past are excluded from the sample, and that the magnitude of this effect could differ between blacks and whites. The evidence presented below of shorter previous spells among the employed than among the nonemployed raises the possibility that selection based on employment status may be an important source of bias.

Table 1.1 also includes, therefore, the reservation and received wages of employed individuals in the NLS who were seeking or intended to seek new employment. Since we are primarily interested in the effects of reservation wages on nonemployment duration, the reservation wages of employed individuals who only do on-the-job search and who have not been nonemployed in the recent past are less relevant here. It is useful, however, to distinguish between those who have had nonemployment spells in the previous year and those who have not among those currently employed. Also, an individual's current reservation wage is not necessarily unchanged from that which determined his previous nonemployment spell, but at least the current one provides a useful first approximation to the unobserved one from the past.

The results show that the ratio of reservation wages to received wages is higher among employed blacks than among employed whites, especially among those who had nonemployment spells in the previous year. Thus, the omission of these individuals and their spells from the analysis does not appear to induce a major selection bias with regard to reservation wages.

Table 1.1 also shows that the standard deviations of received wages among both the employed and the nonemployed, as well as their means, are generally lower for blacks. Thus, the apparently higher reservation wages of blacks cannot be attributed to a higher variance in their offered-wage distributions, despite the lower means.

Finally, the reservation wages of the 1979 samples, and particularly of those who gained employment in the subsequent year, can be compared to the wages at which they gained that employment. Although a comparison of such means provides no evidence on correlations between the two measures, the comparison is at least useful as a first step toward evaluating the validity and effectiveness of self-reported reservation wages. For if these reservation wages are truncating distributions of later wages from below, we would expect the mean received wages to be somewhat higher than the reservation wages. In fact, the results here show this to be true for both groups, though the difference is not significant for blacks. Thus, either the validity of responses or blacks' abilities to obtain these wages is more questionable for them than for whites.

Before moving on to examine other results from the NBER survey, let us briefly consider the full distributions of wages and reservation wages for blacks and whites, as well as the summary statistics presented in table 1.1. These distributions for the nonemployed, presented in figures 1.1–1.6, show that the ratios of reservation wages to received wages are higher for blacks than for whites at the medians of their respective distributions as well as at the means. The medians are 4.00 for the reservation wages and 3.00 for the received wages of nonem-

ployed blacks, and 4.00 and 3.50, respectively, for nonemployed whites. The distributions also show that few of the jobs sought would be accepted at below the minimum wage (\$2.90 in 1979 and \$3.10 in 1980) by either group, although a small fraction of received wages falls below the minimum for each group.

Furthermore, the distributions of received wages are more prominently spiked at the minimum wage among blacks than among whites. If this difference is true of the actual offered-wage distributions as well, any movement of the reservation wages of blacks above the minimum will have correspondingly greater effects on their nonemployment durations. More specifically, a greater part of blacks' wage distribution

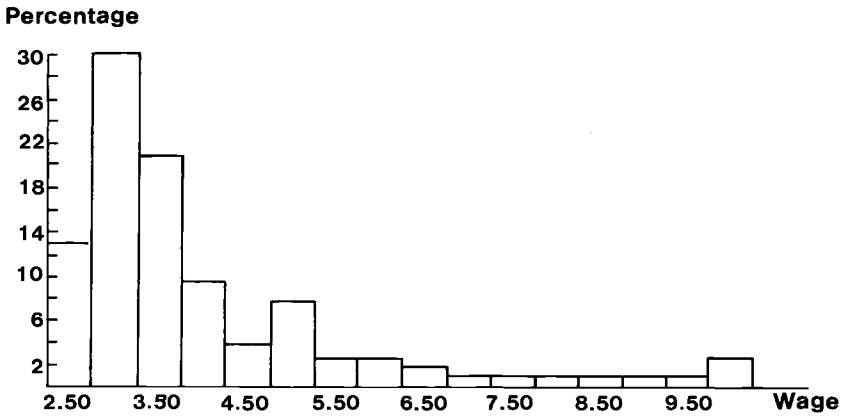


Fig. 1.1 NBER Nonemployed Blacks' Received Wages for Most Recent Job

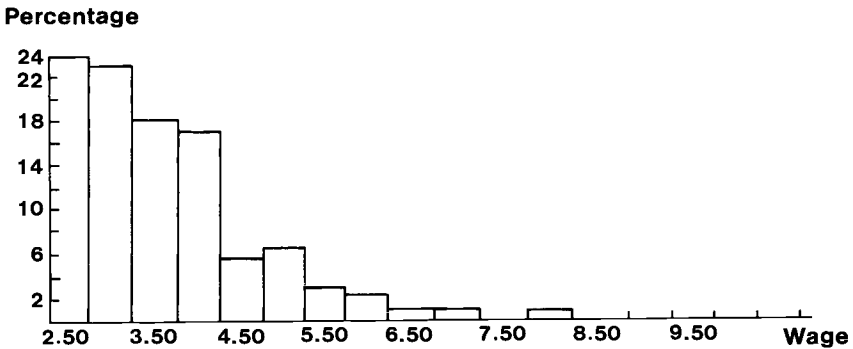


Fig. 1.2 NBER Nonemployed Blacks' Reservation Wages for Sought Jobs

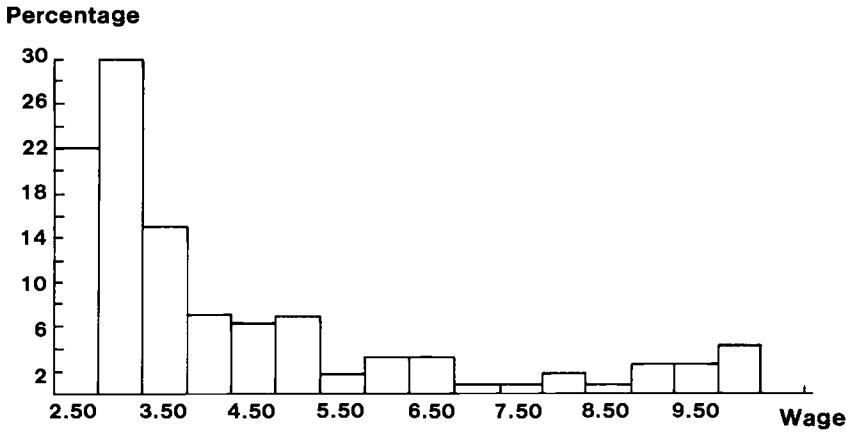


Fig. 1.3 NLS Nonemployed Blacks' Received Wages for Most Recent Job

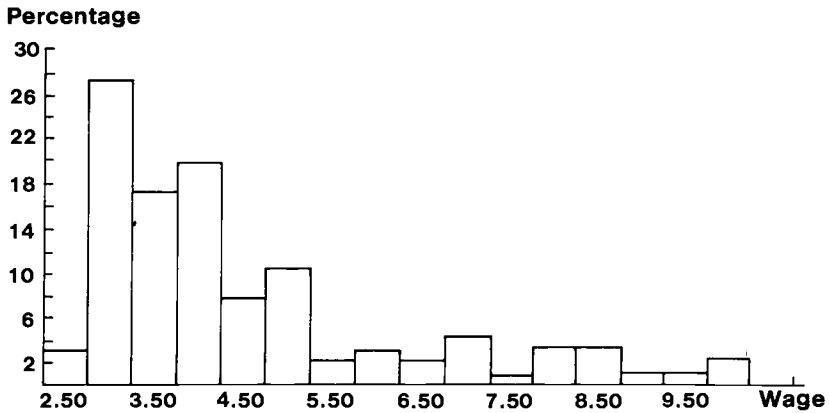


Fig. 1.4 NLS Nonemployed Blacks' Reservation Wages for Sought Jobs

will be truncated by the reservation wage, leaving a smaller fraction of the distribution that is acceptable. By differentiating equation (2), we can see this more clearly, namely, $dP_{NE}/dw^r = -\pi f(w^r)$, where P_{NE} is the transition probability, w^r is the reservation wage, and π is the offer probability. A more prominently spiked offered-wage distribution for blacks means a higher $f(w^r)$ for them and thus a larger effect on transitions and durations. This result is confirmed by estimates from the duration equations for blacks and whites below, which show larger effects of reservation wages on the durations of nonemployment spells

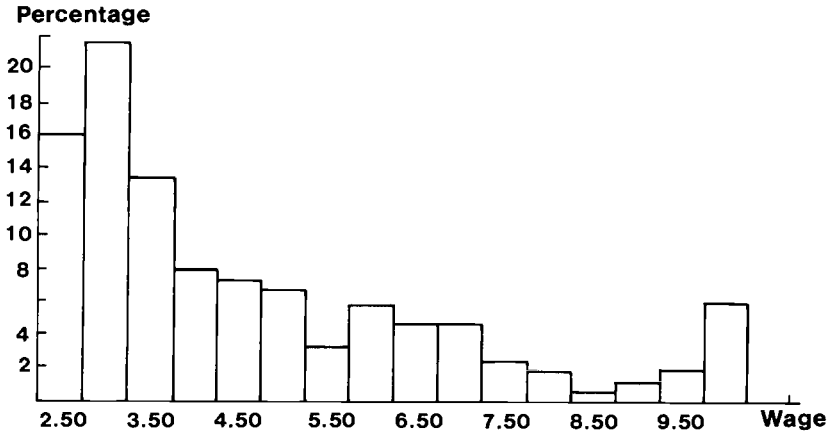


Fig. 1.5 NLS Nonemployed Whites' Received Wages for Most Recent Job

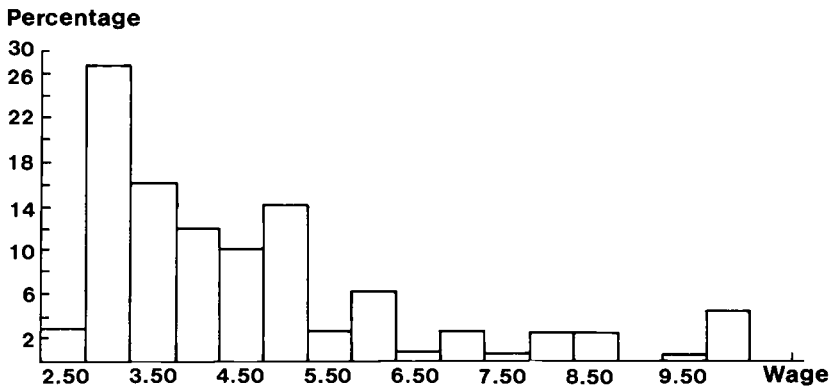


Fig. 1.6 NLS Nonemployed Whites' Reservation Wages for Sought Jobs

among blacks. The higher spiking at the minimum for blacks also confirms the evidence presented above that the variance of the offered-wage distribution appears to be lower for them and cannot be responsible for their relatively higher reservation wage.

Thus far, the evidence that has emerged is fairly consistent in indicating that the reservation wages for the sought jobs of young blacks in the NLS are higher relative to their received wages than are those of young whites. Some puzzling contradictions arise, however, in comparing the results of the NBER survey in table 1.1 with the reservation

wages for specific jobs in both surveys in table 1.2. In table 1.1, the reservation wages for "sought jobs," "best jobs," and "any jobs" of young inner-city blacks are well below those of blacks and whites in the NLS, especially relative to their received wages. Furthermore, histograms on the reservation wages of the nonemployed in the NBER sample indicate that a substantial portion of the youths are willing to accept their sought jobs at below the minimum wage and that their median reservation wages are close to the minimum wage at \$3.00 per hour. That the medians and means differ quite substantially here is no surprise, given the spiking of the wage distributions around the minimum and the large right-hand tails.

Other inconsistencies appear upon consideration of table 1.2. This table presents reservation wages for a list of specific jobs. In this case the format of the questions is identical in the two surveys, though the list of jobs considered in the NLS is longer. The question reads, "If you were offered a job as a _____, would you accept it at _____?" In each case the wage rates considered are \$2.50, \$3.50, and \$5.00 an hour. Table 1.2 presents the percentages of the nonemployed who were willing to accept these jobs at each wage rate in the two surveys. Since this set of questions was asked only in the 1979 NLS, responses to the question on the job sought for that year have been rescaled to the same format and are presented here as well. The same has been done for the job-sought question in the NBER survey and for the questions on the most recently received wage in both surveys.

Several strong findings appear in table 1.2. Perhaps most important is the much greater willingness of blacks than of whites in the NLS to accept each of the specific low-skilled jobs, even though there is no such greater willingness to accept the sought jobs. This is true among those in the North as well as in the South. It is even true when comparing these reservation wages to received wages for each group. Among whites and especially among blacks, a fairly substantial number of respondents were willing to accept these jobs at below the minimum wage, even though this was not the case for either group with respect to their sought jobs.

Comparisons between the different reservation-wage measures for each group produce some interesting findings. Among whites, the cumulative percentage of respondents willing to accept such jobs as factory or supermarket work at \$3.50 or \$5.00 per hour is relatively close to the percentage for sought jobs at those rates, although virtually no one would accept his sought job at \$2.50. But among blacks, no such convergence occurs: The percentage accepting work remains lower at each wage level for the sought jobs. The discrepancy is strongest among blacks in the South, whose reservation wages for sought jobs are higher, but for the specified jobs lower, than those of blacks in the North.

Table 1.2 Reservation Wages for Specific Jobs: Percentage Willing to Accept Work at a Given Hourly Wage or Less, NLS and NBER Samples

	NLS Whites								
	Total			North			South		
	\$2.50	\$3.50	\$5.00	\$2.50	\$3.50	\$5.00	\$2.50	\$3.50	\$5.00
Sought Job, 1979	.02	.41	.70	.02	.40	.67	.01	.42	.76
Neighborhood									
Cleaning	.25	.44	.65	.21	.42	.59	.35	.50	.81
Cleaning	.18	.38	.62	.12	.31	.55	.32	.53	.77
Dishwashing	.17	.34	.60	.13	.28	.55	.26	.47	.68
Factory	.22	.46	.70	.20	.44	.67	.28	.52	.78
Supermarket	.17	.39	.67	.16	.35	.63	.21	.50	.78
Received Wage,									
Most Recent Job	.07	.59	.79	.06	.54	.76	.09	.72	.88
	NLS Blacks								
				North			South		
	\$2.50	\$3.50	\$5.00	\$2.50	\$3.50	\$5.00	\$2.50	\$3.50	\$5.00
Sought Job, 1979	.03	.45	.75	.03	.41	.74	.03	.50	.77
Neighborhood									
Cleaning	.31	.55	.79	.31	.54	.77	.31	.55	.79
Cleaning	.36	.60	.77	.33	.53	.68	.39	.65	.83
Dishwashing	.36	.60	.75	.36	.55	.73	.39	.68	.81
Factory	.35	.71	.86	.38	.66	.82	.33	.76	.89
Supermarket	.44	.69	.84	.40	.61	.78	.48	.76	.89
Received Wage,									
Most Recent Job	.16	.60	.82	.19	.60	.80	.12	.58	.83
	NBER Blacks								
	\$2.50	\$3.50	\$5.00						
Sought Job	.24	.65	.93						
Dishwashing	.15	.47	.85						
Factory Labor	.26	.61	.93						
Supermarket	.19	.59	.89						
Received Wage,									
Most Recent Job	.11	.57	.84						

Note: NLS samples are limited to the 1979 panel of the survey, since questions for specific jobs appear only in that year. Only the nonemployed are included here. NLS sample sizes are 241 for all whites and 160 for those with received wages; for all blacks they are 186 and 90 for those with wages; for blacks in the NBER survey they are 821 and 503, respectively. Reservation wages for sought job and received wages for the most recent job have been rescaled from the continuous to the discrete form.

Finally, some demands for compensating differentials can be seen among both blacks and whites in the preference of both groups for factory or supermarket jobs over such unpleasant, dead-end, or menial jobs as dishwashing or cleaning positions.

The NBER survey data show a greater consistency between reservation wages for sought jobs and those for specified jobs in factories and supermarkets. The same relative dislike as in the NLS data of such jobs as dishwashing is also evident. But reservation wages for sought jobs are lower here than for jobs like dishwashing. Furthermore, a comparison of the reservation wages for specific jobs between the inner-city blacks in the NBER survey and blacks in the NLS shows that the absolute willingness of inner-city blacks to accept these jobs is quite comparable to that of northern blacks in the NLS. If anything, the reservation-wage rates are somewhat higher for the inner-city groups, especially at the \$2.50 mark. In any event, the relatively comparable responses of northern blacks across the two surveys when the question formats were the same indicate the crucial importance of these formats in determining the different responses received.

To summarize, the results from the NLS show that reported reservation wages for jobs sought relative to previously received wages are higher among blacks than among whites, whereas reservation wages for specified low-skilled jobs appear to be lower among blacks. The latter result is generally consistent with evidence from the NBER survey, in which the responses to similarly phrased questions show reservation wages for specified jobs among inner-city black youths to be somewhat higher than those of northern blacks more generally. The reservation wages of both groups indicate a demand for compensating differentials for jobs considered menial or unpleasant.

A few hypotheses will be posed here to explain why responses differ across various reservation-wage questions, and some empirical evidence will demonstrate the usefulness of those hypotheses.

Two hypotheses regarding differences in the reported reservation wages are based on the two major differences between the questions asked in each case. The first attributes the differences in the wages to differences between open-ended and closed formats in the survey questions. All but one of the NBER questions on reservation wages asked respondents whether they would accept specific dollar amounts, rather than asking them to designate their own dollar figure; and the one question that did not follow this format directly followed the others in sequence. Accordingly, tables 1.1 and 1.2 show fairly consistent responses to these questions in the NBER survey. By contrast, the "job sought" question in the NLS is open-ended, while the one for specific jobs uses specific dollar figures. The inconsistencies between responses to these two kinds of questions are much stronger in the NLS, for whites and especially for blacks, than they are in the NBER data.

One explanation for this may be that open-ended questions allow individuals to confound their wage expectations with their reservation wages.⁸ This is supported by the fact that explicit wage expectations were asked of individuals in the NBER survey, and responses to these questions were substantially higher than responses to the reservation-wage questions. In fact, the mean wage expected on the "best job" obtainable by nonemployed respondents in the NBER survey is \$4.88, which is substantially closer in value to the reported reservation wages of blacks in the NLS than are the reservation wages for sought jobs reported in the NBER survey. The fact that inconsistencies in the NLS are higher for blacks, especially for southern blacks, than for whites may indicate either a greater degree of confounding on their part or a greater degree of expectational error on their part.

The second hypothesis attributes differences in reported reservation wages to differences in the nature of the jobs being considered. Questions probing reservation wages for sought jobs allow those jobs to vary among individuals and racial groups. The distribution of those jobs for each group relative to what they can obtain may thus be an important determinant of reservation wages relative to received wages for each group. The jobs sought also differ from the specified jobs, which are primarily low-wage and low-skilled positions.

Furthermore, different dimensions of the various sought or specified jobs may have different implications for the relevant reservation wage. On the one hand, unpleasant nonwage characteristics of jobs that might also be considered menial may lead to higher reservation wages for those jobs; this appears to be the case for whites and blacks within the NLS as well as for blacks within the NBER survey, all of whom are more willing to accept factory or supermarket work than dishwashing or cleaning work. On the other hand, jobs sought may command higher reservation wages than low-skilled jobs for a number of reasons. For one thing, the low-skilled jobs may be regarded as more temporary because of their dead-end nature, whereas sought or desired jobs may be regarded as more permanent. As noted above, theoretical treatments of reservation wages within the job-search literature have emphasized the importance of the time horizon and its positive effects on reservation wages; and empirical evidence has shown that turnover rates are higher and employment durations lower in low-wage service occupations than in other occupations.⁹

Another reason why sought or desired jobs may carry higher reservation wages than low-skilled jobs is that higher wages may be regarded as more appropriate and therefore more equitable for the former category of jobs. A long tradition exists within the literature of labor economics that emphasizes the importance of traditional wages norms for jobs and considerations of equity and relative position with regard to comparable workers.¹⁰ An understanding among youths that low-

skilled jobs generally pay low wages may occasionally lead them to accept those jobs, particularly if they regard those jobs as being temporary and if they need the earnings temporarily while they continue to search or to aspire to longer-term positions for which they will demand higher pay. Of course, the youths' willingness to accept the low-skilled jobs even temporarily diminishes greatly when they consider those jobs unpleasant or menial, as in the case of dishwashing and cleaning.

It is therefore quite possible that the higher reservation wages in the NLS for jobs sought may reflect the characteristics of those jobs as well as a confounding of expectations with reservation wages. Again, one must ask why the willingness to accept temporary jobs would be greater among blacks in the NLS than among either blacks in the NBER survey or whites in the NLS. One answer may be that the dislike of dead-end or menial jobs is the relatively stronger effect for whites and northern, inner-city blacks. Or perhaps the expectations of blacks nationwide (including in the South) regarding attainable jobs or pay at those jobs may be more unrealistic than those of whites and of northern, inner-city blacks. Clearly, therefore, expectations about wages and jobs attainable are an important part of both of the hypotheses above, although their implications for reservation wages differ somewhat between the two explanations.

We now consider some empirical evidence on the issues of occupational expectations and time horizons, as well as their effects on the various reservation-wage measures. Table 1.3 presents distributions for jobs held, sought, and aspired to at age 35 by nonemployed blacks and whites in the 1979 NLS. Distributions for jobs held before the current spell of nonemployment as well as for those attained after the spells are both listed. Occupational aspirations are reflected by responses to the question, "What do you hope to be doing at age 35?"

Table 1.3 **Frequencies of Occupations Sought and Held by the Nonemployed, NLS**

	Job Previously Held		Job Sought		Job Attained		Job Aspired to at Age 35	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Not Specified	.318	.451	.504	.560	.325	.352	.165	.104
White-Collar	.045	.059	.075	.062	.042	.110	.529	.556
Crafts and Operatives	.339	.185	.262	.248	.397	.248	.252	.290
Laborer and Service	.298	.305	.160	.130	.236	.290	.054	.050

Note: These are weighted frequencies for the 1979 panel of the NLS. "Job previously held" refers to the 1979 survey, and "job attained" refers to responses from the 1980 survey by those nonemployed in 1979.

The results show that the distributions of jobs sought and aspired to by young blacks and whites are remarkably similar, but the distributions of jobs held are not. More specifically, blacks are more heavily represented in the laborer and service categories as well as the white-collar category (mostly clerical), whereas whites are much more heavily represented in the crafts and operative positions. Since the latter two categories generally include more highly skilled and highly paid positions than the former, it appears that the occupational expectations of young blacks are higher than those of young whites relative to what each group ultimately obtains. This view is consistent with one presented over ten years ago by Goodwin (1973), who argued that blacks and the poor wanted the same kind of work as everyone else did, but they had no means of achieving their occupational aspirations.

Having demonstrated the relatively higher occupational expectations of young blacks, we must still seek to explain how those expectations affect their responses to the various reservation-wage questions. Table 1.4 presents the reservation wages of nonemployed blacks and whites in the NLS for jobs sought and jobs specified, disaggregated by job sought. As before, reservation wages for jobs sought appear in continuous form and as the percentage accepting work at \$3.50 per hour or less; reservation wages for specified jobs appear only in the latter form.

The results show that the reservation wages of young blacks for jobs sought increase quite dramatically when the job in question moves beyond the laborer and service category. The percentage of blacks willing to accept jobs at \$3.50 or less drops from over 80 percent when the job sought is from the laborer and service category to 40 percent

Table 1.4 Mean Reservation Wages by Jobs Sought of the Nonemployed, NLS-B

	Job Sought							
	Not Specified		White-Collar		Crafts and Operative		Laborer and Service	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Reservation Wage for Job Sought	4.51	4.49	4.04	4.28	4.76	4.24	3.62	3.28
Percentage Accepting ——— at < \$3.50/Hour								
Job Sought	.365	.409	.529	.322	.422	.371	.495	.813
Neighborhood								
Cleaning	.383	.558	.539	.430	.515	.543	.491	.515
Cleaning	.368	.629	.337	.118	.438	.592	.344	.669
Dishwashing	.344	.645	.303	.413	.317	.533	.400	.688
Factory	.479	.681	.479	.457	.505	.789	.348	.791

Note: Sample sizes are the same as those in table 1.2. All means are weighted.

or under in the other categories. Among whites this decline is also evident, though much less pronounced. The willingness of blacks and whites to accept the specified low-skilled jobs also shows some sensitivity to the jobs they claim to be seeking. In particular, those seeking white-collar jobs are less likely to accept specified low-skilled jobs than those seeking other jobs. But the differences in these results across the job-sought categories are far less striking than they are among blacks for the reservation wages attached specifically to the jobs sought.

This relationship becomes even stronger when one compares reservation-wage measures within each category of jobs sought. Generally, those who seek laborer or service employment have reservation wages for those sought jobs comparable to or lower than their reservation wages for the specified low-skilled jobs. But among blacks, those who seek other jobs have higher reservation wages for sought jobs than for specific ones. It is clear, then, that the jobs sought by the black non-employed affect their reservation wages for those positions, although many of those who are seeking skilled blue-collar or white-collar jobs at higher wages seem willing to accept the specified low-skilled jobs at lower wages.

The hypothesis that blacks will accept lower wages for the specified jobs because they regard them as being more temporary cannot be tested directly, but the fact that they regard them as temporary can be demonstrated on its own. The NBER survey included questions about respondents' intended time horizons for their most recently held jobs. One question asked, "Did/Do you regard this job as being long-term or temporary?" and another asked, "How long did/do you intend to stay on this job?" Table 1.5 presents responses to these questions for the different occupational groupings in the NBER sample. Turnover rates, defined as the percentage of respondents who lost or left their jobs in the previous year, are also presented for these groupings. As expected, the results show that laborer and service jobs are more often regarded as being temporary by those who hold them than are other jobs; and intended employment durations for those jobs are shorter as well. Turnover rates, which are more objectively defined, also show higher rates of movement out of (and therefore shorter employment durations in) laborer and service jobs. The evidence is thus consistent with the claim that black youths are less choosy about certain low-skilled jobs than they are about others they are seeking because they often expect the former to be temporary.

Of course, none of these results demonstrates that the responses to the open-ended reservation-wage questions for sought jobs in the NLS are *truly* reservations as opposed to just expectations about wages. It remains to be shown which of the reservation wages listed here has the greatest power to predict subsequent durations of nonemployment and wages received. This issue will be addressed in section 1.4.

Table 1.5 Time Horizons and Turnover Rates for Jobs by Occupation, NBER Blacks

	White-Collar	Crafts and Operative	Laborer and Service
Perceptions of Long-Term Potential of Job			
Long-Term	.39	.40	.29
Temporary	.53	.56	.65
Don't Know	.07	.04	.06
Intended Employment Durations:			
< 3 months	.14	.14	.19
3-6 months	.08	.12	.10
6-12 months	.02	.03	.04
Indefinite	.67	.66	.56
Turnover Rates	.64	.66	.72

Note: Calculations are for all who had employment in past year. Turnover rates are defined as the percentage of all with employment who lost or left their jobs in the past year.

For now, the analysis has shown that reservation wages for jobs sought by young blacks are higher relative to the wages they ultimately receive than are those of young whites, while the reservation wages of blacks for specific low-skilled jobs appear to be lower than those of their white counterparts. The comparisons between means (or frequencies) of reservation wages and received wages are a crude first attempt to judge the level of reservation wages of young blacks and whites relative to the potential offered wages of each group in the labor market, where offered wages reflect the demand for labor facing each group. These comparisons are of only limited use here, however.

For one thing, the comparisons include controls for offered wages but not for offer probabilities. Since black-white wage differentials have declined in recent years while employment differentials have risen, omitting the latter from the controls is likely to downward-bias the estimated black-white differentials in reservation wages. Furthermore, the endogeneity of received wages with respect to reservation wages is also likely to bias downward any measure of the latter relative to the former. This bias may be compounded by the omission from these samples of youths without any employment in the previous year, a status that may have been caused for some by their high reservation wages. On the other hand, the ratio of reservation to received wages may not be constant across all individuals within each racial group. In particular, if this ratio declines as received wages rise, the ratio of the means for whites may understate the true ratio among those whites

whose characteristics are comparable to those of blacks. Thus, the black-white differential in this ratio may reflect an upward bias as well, and the net effects of these downward and upward biases are unclear.

This analysis therefore estimates different specifications of equation (7) above for blacks and for whites. These specifications are then used to calculate racial differences in reservation wages in the following manner:

$$\Delta w^r = \bar{w}_B^r - \beta_w \bar{X}_B = (\beta_B - \beta_w) \bar{X}_B$$

where the B terms are the estimated coefficients of equation (7) and the X terms are either predicted wages, weeks worked, or their underlying determinants, as described in section 1.2.¹¹

The equations used to predict wages and weeks worked appear in table 1.A.1 of the appendix. Those equations were estimated using OLS and included both currently employed and nonemployed individuals in the sample. Because of the large number of individuals without wages or work over the past year, some equations were estimated using the inverse of the Mills ratio calculated from probit equations for employment in the past year. The coefficients on this variable proved to be highly sensitive to what was included in the first-stage probit equation, however, and the predicted wage values were unstable and often implausible.¹²

Table 1.6 presents the results of simple reservation-wage equations for predicted wages or predicted weeks worked in the NLS. Some equations contain the continuous reservation wage for sought jobs as the dependent variable, while others contain a dummy variable for whether or not the sought or specified jobs would be accepted at \$3.50 per hour. The latter results are from equations that were estimated as linear-probability models.¹³ Most of those equations for the NLS sample were estimated separately by region; these disaggregated results on the merged 1979 and 1980 samples for the continuous job-sought variable are presented here as well.

The results in table 1.6 show that the reservation wages of whites are consistently more responsive to demand-side factors than are those of blacks. The differences exist both in wages and weeks worked and in reservation wages for both sought and specified jobs. Most of the observed differences are also reasonably significant.¹⁴ The regional breakdown indicates that the lower responsiveness is primarily a characteristic of blacks in the South, but regional breakdowns for the 1979 NLS sample (not presented here because of very small sample sizes for southern whites) also show smaller coefficients for northern blacks than for northern whites with regard to several of the specified occupations.¹⁵

Table 1.6 Coefficients from Simple Reservation-Wage Equations for Predicted Wages and Weeks Worked, NLS

Dependent Variables	Whites		Blacks	
	Wages	Weeks Worked	Wages	Weeks Worked
Reservation				
Wages for:				
Sought Jobs, 1979 and 1980				
Total	.623 (.085)	.013 (.003)	.420 (.120)	.007 (.003)
South	.630 (.116)	.012 (.003)	.618 (.162)	.013 (.004)
South	.718 (.175)	.012 (.006)	.260 (.178)	.003 (.004)
Sought Jobs, 1979	.716 (.153)	.015 (.005)	.399 (.194)	.007 (.004)
Percentage				
Accepting				
Wages < \$3.50				
in 1979 for:				
Sought Jobs	-.817 (.219)	-.015 (.007)	-.652 (.287)	-.008 (.007)
Neighborhood				
Cleaning	-.286 (.226)	-.008 (.007)	.134 (.239)	.002 (.007)
Cleaning	-.574 (.220)	-.019 (.007)	-.285 (.285)	-.002 (.007)
Dishwashing	-1.048 (.206)	-.032 (.006)	-.406 (.276)	-.002 (.006)
Factory	-.201 (.231)	-.018 (.007)	-.701 (.257)	-.012 (.006)

Note: Separate equations estimated for wages and weeks worked. Independent variables are predicted values based on the equations presented in the appendix. Equations for the NLS are weighted by the sample weights. Only the nonemployed are included in the samples for the reservation-wage equations, whereas the wage and weeks-worked equations include both the employed and nonemployed. Continuous reservation-wage and predicted-wage variables appear in logs.

Table 1.7 shows the calculated racial differences in reservation wages, using the coefficients for whites from the equations in table 1.6, as well as those from equations in which the X_i variables were directly entered into the reservation-wage equation. For the sake of comparison, racial differences in mean reservation wages and in the ratios of reservation to (predicted) received wages are also included in the table.

The results here show that the reservation wages of young blacks for sought jobs are higher than those of whites, after controlling for wages and weeks worked. This result appears to reflect the greater responsiveness of whites' reservation wages to wages and weeks

Table 1.7 Black-White Differences in Reservation Wages, With and Without Various Controls, NLS

Black-White Difference	Reservation Wages For:				
	Sought Job, 1979-80			Sought Job, 1979	
	Total	North	South	Total	
1. Differences in Means, No Controls	-.013	-.031	.051	-.042	
2. Controlling for Exogenous Determinants of Wages and Weeks Worked	-.007	-.018	-.018	-.041	
3. Controlling for Wages	.094	.098	.092	.089	
4. Controlling for Weeks Worked	.134	.133	.155	.149	
5. Ratio of Mean Reservation Wages to Received Wages	.135	.176	.104	.149	
	Percentage Accepting Wages < \$3.50 in 1979 for:				
	Sought Jobs	Neighborhood Cleaning	Cleaning	Dishwash	Factory
1. Differences in Percentages, No Controls	.015	.076	.194	.279	.227
2. Controlling for Exogenous Determinants of Wages and Weeks Worked	.006	.053	.150	.203	.219
3. Controlling for Wages	-.134	.024	.081	.088	.099
4. Controlling for Weeks Worked	-.167	-.025	-.041	-.108	.013

Note: All differences are between blacks and whites. Mean received wages and weeks worked in all cases reflect predicted values here because of the large numbers of missing values for the actual variables. All means and equations are weighted. Coefficients from equations for whites are used along with mean black wages, weeks worked, or characteristics, to predict reservation wages for whites when controlling for these characteristics.

worked, as well as the lower levels of these variables for blacks. The weeks-worked control produces a larger effect than the control for wages, since the racial differential in weeks worked is larger than that in received wages; predicted values for both are shown in table 1.A.2 of the appendix. This table also shows the mean values of the underlying X_t variables for blacks and whites. Unlike predicted wages and weeks worked, the racial differences in the underlying variables and their effects on reservation wages were not strong enough to produce a racial differential in reservation wages when those variables were used as the controls. Thus, it is only the unexplained differences in wages and weeks worked between whites and blacks that cause the

reservation wages of blacks to seem relatively high. Whether these unexplained differences reflect discrimination or skill differences is unclear.

The results also indicate that the racial differential suggested above by simply comparing mean reservation to mean received wages for each group is virtually identical to the one obtained from an equation that controlled for weeks worked. The various downward biases discussed above in estimating the racial differential through the means therefore seem to be almost exactly counterbalanced by the upward bias of using a constant ratio of reservation to received wages for whites—a notion rejected by the coefficients on wages for whites in table 1.6, which are significantly less than one.

The results for reservation wages for specific jobs remain generally lower for blacks than for whites even when controlling for wages. But in equations controlling for weeks worked, the willingness of young blacks and whites to accept those jobs becomes more similar. In the case of dishwashing, the control for weeks worked actually produces lower reservation wages for whites, perhaps reflecting the especially strong responses to wages and weeks worked of the reservation wages of whites for this job.

In sum, the reservation wages of young blacks for jobs sought are comparable to those of young whites in an absolute sense; but they are higher among blacks after controlling for the effect of wages on weeks worked. The same relationship appear to be true of the jobs sought by young blacks. On the other hand, blacks' reservation wages for specific low-skilled jobs are generally comparable to or lower than those of whites, even after controlling for these factors. It remains to be seen how the various reservation-wage measures affect the nonemployed durations and subsequent wages of each group.

Before moving on to this issue, a final note should be made concerning the determinants of the relatively high reservation wages of blacks. Although the discussion above presents some summary evidence on the roles of occupational expectations and job characteristics, there has been no discussion of the role of nonwage income—a factor that is central to most job-search and labor-supply models. Evidence presented elsewhere, however, indicates that reservation wages and nonwage income are positively correlated for young blacks in the NBER survey.¹⁶ Furthermore, illegal income is a major source of nonwage income for this sample; and Viscusi (in this volume) shows that participation in illegal activities is negatively correlated with perceived labor market opportunity for this group. Thus, the outside income generated by illegal activities (and other sources) for young blacks with low skill levels may be an important source of their relatively high reservation wages.

1.4 The Effects of Reservation Wages on Labor Market Outcomes

This section uses the NLS panel data to investigate the effects of the various reported reservation-wage measures on the duration of subsequent nonemployment spells and on wages subsequently received. The estimated results of equations (5) and (6) are therefore presented and discussed below.

1.4.1 Nonemployment Duration Effects

Table 1.8 presents summary evidence on the duration of nonemployment spells among young blacks and whites in the NLS sample. The durations of three types of spells are presented here: The full, completed spell of all those who were nonemployed at the time of the 1979 survey; the incomplete portion of the spell that occurred prior to the survey; and the portion that occurred subsequent to the survey. The calculations therefore use retrospective employment histories of both the 1979 and 1980 NLS to generate the completed spells for those who were still nonemployed in 1979.

These results show that the durations of completed spells of nonemployment are about 28 percent higher among blacks than among whites, with somewhat smaller differentials for the portions of nonemployment occurring subsequent to the survey and somewhat larger for those occurring before the survey. Almost all of the differentials occur in the North as opposed to the South. Nevertheless, these numbers should be interpreted with caution, since the durations are substantially longer among southern whites than among northern whites. Thus, southern blacks also experience substantially longer spells of nonemployment than northern whites, who make up about three-fourths of the total white population and thus are primarily responsible for the aggregate results. Blacks, of course, are quite evenly split between the two regions, and the aggregate results weight both regions about equally.

Two other points should be mentioned here. First the NBER results are omitted here, since only the incomplete, prior spells are available for that cross-sectional survey. As was the case in the analyses above, the calculated results for the NBER sample are quite similar to those for northern blacks in the NLS.¹⁷ Second, and as noted above, the issue of previous, completed spells among the currently employed must be acknowledged. The previous spells were more likely to have been missed at the time of the survey because they were likely to have been shorter. Looking only at the spells of the currently nonemployed is therefore likely to give upward-biased estimates of mean duration, especially when considering the full, completed spells (which

Table 1.8 Durations of Nonemployment Spells: Means and Standard Deviations, NLS

	Whites	Blacks	Black-White Difference
Current Completed Spells			
Total	317.26 (209.28)	406.47 (211.35)	.281
North	298.97 (204.96)	422.70 (215.63)	.414
South	379.29 (217.04)	387.84 (205.99)	.023
Spells Prior to Survey			
Total	156.93 (126.81)	212.10 (132.35)	.351
North	147.03 (124.24)	223.91 (130.18)	.523
South	189.11 (131.74)	198.89 (133.10)	.052
Spells Subsequent to Survey			
Total	162.64 (135.45)	195.29 (138.67)	.201
North	153.66 (131.00)	200.06 (141.83)	.302
South	194.04 (147.85)	190.58 (135.48)	-.018

Note: Spells calculated from retrospective employment histories in the 1979 and 1980 NLS for those who were unemployed in 1979. All spells greater than one year in length are included with a value of 365. All means are weighted using sample weights. Sample sizes are 241 for whites and 186 for blacks. The black-white difference is calculated with durations of whites as the base.

are not subject to the downward bias of truncation by the survey date). In fact, the previous, completed spells estimated from the retrospective histories are substantially shorter than any of those presented in table 1.8.¹⁸ Nevertheless, this difference in duration is roughly the same among blacks and whites. Also, the racial differentials for these spells are in the 20 to 30 percent range, thereby reducing the case for a substantial bias in the estimated differences between blacks and whites.

Thus, given that the nonemployment rates for blacks and whites in the NLS are .396 and .196, respectively, the overall nonemployment differential is 102 percent; and differences in the durations of spells

appear to account for about a third of the nonemployment rate differentials between the two groups in that sample.¹⁹ It should be noted that this is a smaller fraction than that found by Clark and Summers (1982) or by Ballen and Freeman (in this volume), who estimated duration to account for over half of the nonemployment differential between young blacks and whites. The one-third figure can therefore be regarded as a lower bound to the true estimate.

Moving on to the estimated effects of reported reservation-wage measures on these durations, table 1.9 presents the coefficients of the duration equations that take the form of equation (5) above. The dependent variable in each case refers to the portion of the completed spell occurring subsequent to the 1979 survey date, since the reservation wage reported on that date directly determines transition probabilities and therefore expected durations from that date onward.²⁰

As equation (5) specifies, the independent variables are a reservation-wage measure; a dummy variable for whether or not the respondent actively searched for work in the past month; and a set of variables to control for the labor-demand factors that determine offer probabilities and offered wages. This set of control variables includes all of the determinants of wages and weeks worked presented above, as well as dummy variables for occupation, industry, and collective bargaining for jobs held before 1979. Individuals without employment in the past year are given zero values on these variables and values of one on dummy variables for missing values.²¹ Other specifications of this equation using the more limited set of demand determinants or using predicted wages or weeks worked were estimated as well. But these controls were generally insufficient to overcome the downward bias resulting from omitted personal factors in the reservation-wage coefficients,²² and theoretically incorrect negative coefficients appeared in these equations for whites. Results for blacks were far more robust with respect to the controls used.²³

Two other features of the results presented in table 1.9 (as well as in tables 1.10–1.12 below for subsequent wages) should be noted. Separate duration equations are estimated for each reservation-wage measure. Those measures appear in both continuous and discrete form for the job sought, and only in discrete form for specified jobs. The discrete forms appear as a pair of dummy variables that measure the willingness to accept work at \$3.50 or less and at greater than \$3.50 but less than or equal to \$5.00. To compare the predictive power of the different reservation-wage measures with regard to outcomes, F-statistics are calculated for each set of reservation-wage dummy variables. The F-statistics can be compared with the critical F-values for joint significance at the .05 level for each sample size that appears in the table.

The results show that reservation wages for sought jobs have strong effects on the durations of nonemployment among young blacks, par-

Table 1.9 Effects of Reservation Wages on the Duration of Subsequent Spells of Nonemployment, NLS

Equation for:	Whites		Blacks	
	Coefficient	F-Value	Coefficient	F-Value
1. Reservations Wages for Sought Job, 1979				
Total	.112 (.342)		.585 (.313)	
North	.334 (.386)		1.801 (.726)	
South	1.001 (1.474)		.136 (1.442)	
<i>Percentage Accepting Job at ≤ \$3.50:</i>				
2. Sought Job				
\$3.50	1.68 (.339)	4.75	-.749 (.339)	2.86
\$5.00	.801 (.348)		-.384 (.358)	
3. Neighborhood Cleaning				
\$3.50	-.315 (.244)	1.02	-.424 (.301)	1.10
\$5.00	-.042 (.292)		-.221 (.355)	
4. Cleaning				
\$3.50	-.018 (.258)	1.91	-.416 (.278)	2.09
\$5.00	-.484 (.278)		.133 (.396)	
5. Dishwashing				
\$3.50	.142 (.273)	1.91	-.047 (.302)	.33
\$5.00	-.404 (.288)		-.198 (.386)	
6. Factory				
\$3.50	-.080 (.266)	.07	-.355 (.338)	.56
\$5.00	.007 (.310)		-.251 (.427)	
Critical F.05		2.68		3.10

Note: Separate equations estimated for each reservation-wage measure. F-values are for pairs of dummy variables indicating the willingness to work at given wages. The sample includes all those nonemployed in the 1979 panel of the NLS. Controls are a dummy variable for search in the previous months; all of the determinants of wages and weeks worked used above; and dummy variables for occupation, industry, and collective bargaining. Missing values on these latter variables are given zero values and special dummy variables that take on values of one. All equations are weighted using sample weights. Sample sizes are 170 for whites and 129 for blacks. Durations of spells and continuous reservation wages are in logs. Means of the dependent variables on the total samples are 4.412 for whites and 4.738 for blacks.

ticularly among those in the North. Since both the durations and the reservation-wage measures are expressed in logs, the coefficients can be interpreted as elasticities. The results show elasticities of over 0.5 for the nationwide sample of blacks and as high as 1.8 for those in the North. The results for whites are positive but much smaller and not significant.

There are two possible interpretations for the smaller estimated coefficients for whites in these equations. As noted above, the coefficients are downward biased because certain unobserved components of demand are correlated positively with duration but negatively with reservation wages. If either of these correlations is greater among whites than among blacks, the resulting bias in their coefficients will be greater. There is, in fact, some reason to believe that both correlations are greater for whites, since several of the observed measures of personal characteristics and family background (not reported here) appear to have smaller effects on duration for blacks than for whites.²⁴ Furthermore, the simple equations of table 1.6 show a greater responsiveness of reservation wages to wages and weeks worked among whites than among blacks. Consequently, if the observed and unobserved components of demand have similar relationships to duration and to reservation wages, we can expect the downward bias to be greater for whites.

A second explanation of the lower estimated effects of reservation wages among whites is that the effect is, in reality, lower for them. As noted above, the partial effect of reservation wages on duration is $-\pi f(W^r)$, where π is the probability of receiving offers and $f(w^r)$ is the value of the probability density function for wages when evaluated at the reservation wage. The evidence in the appendix shows wage distributions that are more spiked around the minimum wage for blacks than for whites, as well as reservation wages that are higher relative to received wages for blacks, implying a stronger effect of blacks' reservation wages on durations. Of course, we would expect the offer probabilities to be lower among blacks, and it is not clear what the net effect on the relative magnitudes of the partials would be. As discussed below, however, it appears that the probability of *individuals'* obtaining some kind of job offer (albeit at the minimum wage) if they desired one may be quite high even among young nonemployed blacks; and thus young blacks' relatively high reservation wages for sought jobs may have strong effects on the duration of their spells of nonemployment.

Given the estimated elasticities of duration with respect to reservation wages, and given the estimated differences in these reservation wages when controlling for the demand characteristics of blacks and whites, we can estimate the overall effect of these higher reservation wages on the nonemployment durations of blacks. The estimated elasticity for blacks of .585, together with a predicted reservation-wage

differential that was estimated to be as high as .135 relative to received wages for each group, implies that the higher reservation wages add as much as 7.9 percent to the nonemployment durations of blacks. Given the difference in mean durations between blacks and whites of 28 percent, as reported in table 1.8, and of over 30 percent in the dependent variable of the regression sample (see table 1.9, note), the results also suggest that a quarter to a third of the average racial difference in duration may be explained by the relatively higher reservation wages for the sought jobs of blacks than those of whites.

Since the duration of nonemployment spells appears to account for at least a third and probably over half of the higher nonemployment rates of young blacks than those of young whites, the suggestion that the reservation wages of young blacks may significantly add to their nonemployment rates is supported by the evidence. Furthermore, the estimated duration elasticity and racial differentials in reservation wages are even higher in the North than in the South, as is the difference in nonemployment durations. Although the estimated duration elasticity for the North seems implausibly high,²⁵ the effects of northern blacks' reservation wages on their nonemployment rates may be considerable.

Of course, these calculations use the highest estimates of both the duration elasticities and the reservation-wage differentials controlling for the demand characteristics that were estimated. It was argued earlier that in both cases the higher estimates are the more believable ones because the others are plagued by various downward biases. Even so, the effects calculated above of reservation wages on overall nonemployment durations and nonemployment rates for young blacks are likely to be upper bounds to the true effects.

A final caveat must be mentioned here with regard to the above calculations. These calculations assume that the elasticities of duration with respect to reservation wages will not change as the reservation wages change; but, as the formula for the partial derivative implies, the elasticity is itself dependent on the reservation wage. More importantly, a general decline in reservation wages should presumably lower the probabilities of receiving offers facing *individuals* if the aggregate availability of jobs is less than the number of individuals seeking work. Thus, the calculations presented above (of a quarter to a third of the racial differential explained by reservation wages) are even more likely to overstate the true contribution of reservation wages to the aggregate racial difference in durations. The power of the factors determining labor demand to explain racial differences in durations is clearly established, despite the significant effects estimated for reservation wages.

The results shown in table 1.9 indicate that the discrete measures of reservation wages for sought jobs have greater explanatory power than

any of the measures of those wages for specified jobs in the equations measuring duration for blacks and whites. Nevertheless, the high joint significance level of the dummy variables for the sought jobs of whites masks the fact that the relative magnitudes of their coefficients are not “correct” since those with reservation wages above \$5.00 per hour experience the shortest spells of nonemployment. Among whites, only the reservation wages for neighborhood cleaning have coefficients with sensible magnitudes, of which at least one is marginally significant; among blacks this is true of the reservation wages for neighborhood cleaning, cleaning, and factory jobs. But none of these other measures comes close to having the predictive power or magnitudes of coefficients (both relative and absolute) that the measure for sought jobs has among blacks. The belief that the measures for sought jobs are less valid than those of specified jobs because the former represent a confounding of expectations and reservations may be partially true, but the strong behavioral implications of those measures support the case for their validity.

1.4.2 Wage Effects

This section addresses the effects of reported reservation wages on subsequent wages. Consistent with the theory that received wages reflect a probability-weighted average of an offered-wage distribution truncated by reservation wages, equation (6) specifies that subsequent wages be estimated as a function of reservation wages and predicted wages, where the latter serve as a proxy for the mean of the offered wage distribution.

Table 1.10 presents the results of these equations for blacks and whites. The reservation wages for sought and specified jobs appear in the same format as in the duration equations, with separate equations and F-values presented for each measure, and with the same predicted wage as that described above. The results show very significant effects of reservation wages for sought jobs on the received wages of both blacks and whites. The effect is a bit stronger for whites, and for both groups the effects are greater in the North than in the South. In this equation, the effects of omitted components of the predicted wage should have a positive rather than negative effect on the estimated coefficients for reservation wages (since these components should be positively correlated with both reservation and received wages); these effects may be causing the higher coefficient for whites observed here.

An alternative explanation is that whites are more likely to obtain their sought jobs than are blacks, and hence their reported reservation wages for these jobs are more predictive of subsequent wages. This explanation is consistent with the results in table 1.3, which show a greater consistency between occupations sought and those received or

Table 1.10 Effects of Reservation Wages on Received Wages at Subsequent Jobs, NLS

Equation for:	Whites		Blacks	
	Coefficient	F-Value	Coefficient	F-Value
1. Reservations Wages for Sought Job, 1979				
Total	.554 (.091)		.252 (.106)	
North	.723 (.116)		.643 (.170)	
South	.145 (.092)		.101 (.141)	
<i>Percentage Accepting Job at ≤ \$3.50:</i>				
2. Sought Job				
\$3.50	-.551 (.085)	21.05	-.348 (.108)	5.68
\$5.00	-.422 (.085)		-.171 (.112)	
3. Neighborhood Cleaning				
\$3.50	-.104 (.074)	1.78	-.336 (.089)	7.51
\$5.00	.032 (.088)		-.167 (.107)	
4. Cleaning				
\$3.50	-.142 (.079)	1.59	-.161 (.089)	1.76
\$5.00	-.072 (.082)		-.044 (.120)	
5. Dishwashing				
\$3.50	-.220 (.079)	3.93	-.311 (.095)	7.66
\$5.00	-.069 (.078)		-.026 (.121)	
6. Factory				
\$3.50	-.189 (.083)	2.73	-.102 (.115)	2.35
\$5.00	-.090 (.091)		-.113 (.133)	
Critical F.05		3.05		3.10

Note: Separate equations estimated for each reservation wage measure. F-values are for pairs of dummy variables indicating the willingness to work at given wages. The sample includes all those nonemployed in the 1979 panel of the NLS who reported wages for jobs obtained in the subsequent year. Predicted wages are included as a control variable. All equations are weighted by sample weights. Samples sizes are 143 for whites and 99 for blacks. Continuous reservation wages and received wages are in logs.

held by whites. It is also consistent with the higher estimated effects of these reservation-wage measures on the nonemployment durations of blacks, which imply that blacks' higher reservation wages relative to their offer probabilities and offered wages lead to higher nonemployment rather than higher wages for blacks.

Comparing the reservation wages for sought and specified jobs in their discrete forms, we find that sought jobs totally dominate all of the specified jobs for whites, in both magnitudes of coefficients and F-values. Among blacks, the F-values for sought jobs are a little lower than those for neighborhood cleaning and dishwashing jobs, but the magnitudes of the coefficients for sought jobs are very similar to those for neighborhood cleaning and are greater than those for dishwashing (though their standard errors are greater). Thus, the reservation wages for sought jobs serve as well as or better than those for specified jobs among both blacks and whites in explaining subsequently received wages; and again, doubts about the validity of this measure are not supported by its power to explain observed behavior. But the fact that reservation wages for specified, low-skilled jobs have relatively greater predictive power for the wages of blacks than for those of whites also suggests again that blacks are more likely to have to accept these jobs in place of their preferred ones, even if only temporarily.

This analysis also tests whether the explanatory power of the reservation-wage measures for different jobs varies according to the nature of the job ultimately received. The same wage equations are estimated for two subsamples of blacks and whites: those whose jobs received were in the laborer and service category; and those whose jobs received were in the same broad category (such as white-collar, craft and operative, or laborer and service) as their jobs sought. It was hypothesized that reservation wages for sought jobs would have relatively more explanatory power in the latter group, while reservation wages for the specified, low-skilled jobs would be more predictive in the former.

The tests are rather crude because of the broadly defined nature of the occupational aggregates and because of the much smaller sample sizes in the subsamples. Nonetheless, the tests are moderately successful, especially among whites. Table 1.11 presents results for the group with laborer and service jobs. The results show a strong increase in the explanatory power of reservation wages for dishwashing and for cleaning among whites, with a strong decline in the explanatory power of those for jobs sought relative to the results for the total sample. Among blacks the changes are less pronounced, but there is a strong increase in the explanatory power of reservation wages for factory jobs.

Table 1.12 presents results for those who obtained the kinds of jobs they had sought. The reservation wages for these jobs continue to have

Table 1.11 Effects of Reservation Wages on Received Wages at Subsequent Jobs: Laborers and Service Workers, NLS

Equation for:	Whites		Blacks	
	Coefficient	F-Value	Coefficient	F-Value
1. Reservations Wages for Sought Job, 1979				
Total	.735 (.180)		.599 (.175)	
North	—		—	
South	—		—	
<i>Percentage Accepting Job at ≤ \$3.50:</i>				
2. Sought Job		7.59		4.92
\$3.50	-.565 (.159)		-.463 (.172)	
\$5.00	-.298 (.157)		-.221 (.122)	
3. Neighborhood Cleaning		1.35		6.75
\$3.50	-.135 (.120)		-.418 (.119)	
\$5.00	.059 (.146)		-.219 (.138)	
4. Cleaning		2.59		.45
\$3.50	-.232 (.118)		-.071 (.133)	
\$5.00	.007 (.130)		.037 (.155)	
5. Dishwashing		4.51		6.52
\$3.50	-.336 (.112)		-.358 (.143)	
\$5.00	-.180 (.142)		.024 (.125)	
6. Factory		2.07		5.77
\$3.50	-.143 (.165)		-.183 (.149)	
\$5.00	.085 (.165)		.207 (.211)	
Critical F.05		3.15		3.20

Note: Separate equations estimated for each reservation-wage measure. F-values are for pairs of dummy variables indicating the willingness to work at given wages. The sample is a subset of that in table 1.10 and includes only those who obtained jobs as laborers and service workers in the subsequent year. Sample sizes are 64 for whites and 47 for blacks. Continuous reservation wages and received wages are in logs.

strong explanatory power among whites, whereas those for the specified low-skilled jobs have very little. Among blacks the strongest decline is in reservation wages for factory jobs, though the magnitudes on the coefficients for these and some of the other reservation wages for specified jobs actually increase.

In summary, the reservation wages reported for sought jobs in the NLS have a large, significant effect on the duration of nonemployment among young blacks and on subsequent wages among both blacks and whites. Reservation wages for the specified, low-skilled jobs also have some effects on subsequent wages, particularly among those who obtained laborer and service jobs, and this is generally more true of blacks than of whites. The belief that reported reservation wages for sought jobs in the NLS are less valid than the others because the open-ended format of the questioning allowed confounding of expectations and reservations is not supported here, given the stronger behavioral implications of these measures. If anything, the results here suggest that young blacks do aspire to the sought jobs and the reservation wages they reported, and these measures therefore appear to contribute more to their nonemployment durations than do the measures for low-skilled jobs. The low-skilled jobs may be temporarily acceptable only when the immediate need for income is great or the nonemployment spell has been quite long.

A final issue to be addressed is that of the overall availability of jobs for young blacks. The large observed effects of reservation wages for sought jobs on nonemployment durations in this group imply that a reduction in the mean level of these reservation wages would reduce mean nonemployment durations and nonemployment rates. As noted above, the economic interpretation of the large estimated effects is that offer probabilities for lower-wage jobs are high among nonemployed blacks, that is, jobs are relatively available to those who want them or who are willing to accept them at low wages. Needless to say, this interpretation would meet with a fair amount of controversy in a community of young blacks experiencing such high rates of nonemployment. Before this strong implication can be accepted, two questions must be answered: First, is there other evidence of job availability that is more direct than simply drawing inferences from estimated duration elasticities? And second, even if these numbers of jobs are currently available to *individuals* who are willing to accept them, are they available in the *aggregate*? Or is there instead a smaller number of such jobs available that only seem plentiful to particular individuals because most other individuals will not accept them? In other words, the offer probabilities facing individuals may depend on the aggregate level of reservation wages, and also the elasticity of duration with respect to reservation wages may decline if there is an aggregate decline in those reservation wages.

Table 1.12 Effects of Reservation Wages on Received Wages at Subsequent Jobs for Those Obtaining Jobs Sought, NLS

Equation for:	Whites		Blacks	
	Coefficient	F-Value	Coefficient	F-Value
1. Reservation Wages for Sought Job, 1979				
Total	.402 (.148)		.643 (.306)	
North	—		—	
South	—		—	
<i>Percentage Accepting Job at ≤ \$3.50:</i>				
2. Sought Job		5.29		3.64
\$3.50	-.486 (.157)		-.402 (.237)	
\$5.00	-.424 (.148)		.315 (.324)	
3. Neighborhood Cleaning		.73		4.67
\$3.50	.090 (.203)		-.627 (.217)	
\$5.00	-.204 (.188)		-.200 (.243)	
4. Cleaning		1.13		4.00
\$3.50	.067 (.168)		-.648 (.229)	
\$5.00	-.139 (.152)		-.515 (.290)	
5. Dishwashing		.07		4.00
\$3.50	.024 (.175)		-.603 (.219)	
\$5.00	.054 (.150)		-.184 (.318)	
6. Factory		.30		.69
\$3.50	-.082 (.174)		-.368 (.355)	
\$5.00	-.124 (.160)		-.082 (.421)	
Critical F.05		3.20		3.47

Note: Separate equations estimated for each reservation-wage measure. F-values are for pairs of dummy variables indicating the willingness to work at given wages. The sample is subset of that in table 1.10 and includes only those who in the subsequent year obtained the jobs they had been seeking. Sample sizes are 40 for whites and 23 for blacks. Continuous reservation wages and received wages are in logs.

These propositions may be the case, because the available jobs (or those with vacancies) are most likely to be those with high turnover rates and those not sought by the majority of workers, namely, the low-wage labor or service sector jobs. Those jobs considered menial or dead-end may be the most readily available of all because of the high turnover in and the relatively high reservation wages for these positions. The important point here is that a general lowering of reservation wages and of the level of job sought (or even of the turnover rates for these jobs) might substantially reduce the apparent availability of jobs to those who want them, leaving a more salient aggregate shortage of jobs among the nonemployed.

The empirical evidence on these larger issues is neither extensive nor conclusive. Some unique evidence from the NBER survey appears in table 1.13. The inner-city black youths were asked, "Suppose you were desperate for money. How easy would you say it would be for you to find a job working as/at _____?" and several jobs were listed afterward. The survey responses indicate that over 70 percent of the nonemployed youths in the survey believed that it would be somewhat easy or very easy to obtain some sort of job at the minimum wage, whereas for other jobs, such as laborer work, the percentage was lower (46 percent for laborer work). These data imply that nonemployed, inner-city young blacks perceive a fair number of jobs are availability at low wages, which is consistent with the high estimated elasticities of duration with respect to reservation wages for this group.

Several caveats must be mentioned with regard to these results. First, the NBER survey was conducted in late 1979 and early 1980, years that predated the recession that then plagued U.S. labor markets for the next three years. Second, the survey data are based on subjective perceptions or expectations of job availability; and as noted above, such expectations may be overly optimistic. Finally, these perceptions are clearly individual rather than aggregate and therefore tell us little about job availability if overall reservation wages were to change. The extent to which the estimated effects of reservation wages on the duration of nonemployment would hold for major changes in the aggregate remains unclear at this time.

Table 1.13 Nonemployed Blacks' Perceived Ability to Obtain Jobs, NBER Survey

Job	Very Easy	Somewhat Easy	Difficult	Impossible
Working as a Laborer	.184	.276	.463	.077
Working at a Minimum Wage Job	.375	.328	.227	.071

1.5 Summary

This paper has analyzed the reservation-wage differentials of young blacks and whites and the effects of those differentials on the non-employment durations and subsequent wages of both groups. The results have shown that young blacks seek jobs and wages that are comparable to those of young whites but that are at higher levels than the jobs and wages the young blacks ultimately obtain. These relatively high expectations contribute somewhat to blacks' nonemployment durations, which are already substantially higher than those of whites. On the other hand, young blacks appear at least as likely, if not more likely, than whites to take specific low-skilled jobs, although they seem to accept these only temporarily. A reluctance to take certain menial or dead-end jobs is evident among both blacks and whites.

The overall implication of these findings is that young blacks have modeled their expectations and aspirations after those of the white society around them, but their means of achieving those ends are fewer. It is not clear whether young blacks' ability to attain their expectations is the result of lower skills, fewer contacts, less information, or simply discrimination.

It does seem as though the concern expressed in recent years about a "culture of poverty" among poor blacks, namely, their lack of middle-class aspirations, is unfounded. Instead, the main problem faced by young blacks is how to achieve their aspirations.

The results also shed new light on the potential of both public and private sector strategies to create only more low-wage, dead-end jobs for young, nonemployed blacks. To the extent that many young blacks appear willing to take these jobs temporarily, they may be useful in a limited sense as a means of providing income or training. But young blacks, like their white counterparts, clearly aspire to better positions than these, even in the short run. Unless accompanied by substantial training or some other means of achieving upward movement, public service jobs or private ones created by policies like the proposed sub-minimum wage for youth are unlikely to meet the hopes and needs of the young black nonemployed.

Appendix

Table 1A.1 Log-of-Wages and Weeks-Worked Equations, NLS

	Whites		Blacks	
	In Wages	Weeks Worked	In Wages	Weeks Worked
Intercept	4.787 (.180)	17.235 (6.598)	5.116 (.245)	7.310 (10.522)
Age	.052 (.010)	.561 (.355)	.024 (.013)	.264 (.552)
Experience in Years	.021 (.011)	1.473 (.405)	.033 (.016)	3.880 (.716)
Urban	.085 (.020)	.144 (.736)	.038 (.042)	2.642 (1.832)
South	-.076 (.021)	2.381 (.759)	-.014 (.029)	5.243 (1.246)
<i>KWW</i>	.019 (.006)	.168 (.208)	.019 (.008)	.270 (.365)
Library Card at Home	.058 (.023)	1.309 (.853)	.027 (.070)	-1.816 (1.293)
H.S. Diploma	.086 (.023)	7.786 (.805)	.146 (.030)	5.976 (1.308)
Marital Status:				
Now Married	-.029 (.040)	3.522 (1.581)	-.007 (.062)	-.064 (2.443)
Was Married	.168 (.105)	5.572 (3.844)	.203 (.186)	-2.131 (13.337)
1950 Dummy Variable	.061 (.018)	-.670 (.663)	.051 (.028)	-.192 (1.250)
Household Income, Excluding Own	-.002 (.001)	-.016 (.037)	.003 (.002)	.083 (.079)
Household Income, Listed \leq 0	.001 (.032)	5.600 (.947)	.173 (.046)	14.726 (1.764)
Household Income Missing	-.040 (.025)	1.041 (1.023)	-.024 (.036)	.666 (1.684)
R ²	.163	.160	.176	.256
N	1,891	1,936	737	832
Mean of Dependent Variable	6.140	41.086	5.953	30.105

Note: Equations estimated using OLS. Samples include all respondents reporting wages in the past year for the wage equations and all respondents (including those without work in the past year) in the weeks-worked equations. Household income (excluding own) in thousands of dollars. Knowledge of world of work (*KWW*) ranges from 1 to 11 for the number of questions answered correctly. Experience reflects the number of years in which the individual was employed as of one year before the survey date, starting in 1975.

Table 1.A.2 Characteristics of the Nonemployed: Means and Standard Deviations, NLS

	Whites				Blacks			
	1979–80		1979		1979–80		1979	
	Total	N	S	Total	Total	N	S	Total
Predicted Wages	6.054 (.181)	6.105 (.157)	5.913 (.170)	6.007 (.168)	5.878 (.165)	5.989 (.158)	5.860 (.170)	5.816 (.145)
Predicted Weeks Worked	36.222 (5.687)	36.681 (5.718)	34.437 (5.397)	35.788 (5.497)	24.695 (7.506)	22.751 (7.102)	26.528 (7.415)	22.732 (6.298)
Age	19.200 (1.730)	19.387 (1.610)	18.677 (1.936)	19.145 (1.549)	19.496 (1.694)	19.688 (1.681)	19.315 (1.687)	19.214 (1.565)
Experience	1.010 (1.152)	1.043 (1.204)	.777 (.950)	.785 (1.122)	.803 (1.508)	.926 (1.123)	.687 (.980)	.578 (.955)
Urban	.728 (.445)	.821 (.383)	.466 (.499)	.722 (.442)	.855 (.352)	.952 (.213)	.763 (.425)	.856 (.351)
South	.263 (.440)	— —	— —	.261 (.442)	.515 (.500)	— —	— —	.501 (.500)
KWW	5.589 (1.790)	5.723 (1.774)	5.213 (1.780)	5.625 (1.815)	4.793 (1.709)	4.863 (1.699)	4.727 (1.715)	4.953 (1.743)
Library Card at Home	.806 (.396)	.836 (.371)	.722 (.448)	.809 (.393)	.723 (.447)	.692 (.497)	.753 (.431)	.712 (.453)
H.S. Diploma	.499 (.500)	.593 (.491)	.236 (.424)	.439 (.496)	.452 (.498)	.442 (.497)	.462 (.499)	.370 (.483)
Marital Status, Now Married	.051 (.220)	.053 (.224)	.046 (.209)	.402 (.201)	.073 (.261)	.036 (.187)	.109 (.312)	.071 (.257)
Was Married	.009 (.096)	.013 (.111)	.000 (.000)	.014 (.118)	.004 (.061)	.000 (.000)	.007 (.085)	.006 (.078)
Household Income (in dollars)	13,249 (13,005)	13,862 (13,201)	11,374 (10,802)	12,503 (11,170)	11,267 (13,428)	12,333 (14,506)	10,435 (11,443)	9,884 (11,056)
N	420	300	120	179	296	155	141	141

Note: All means are weighted using sample weights. Predicted wages and weeks worked calculated using means from these tables and coefficients from equations presented in table 1.A.1. Sample sizes reflect those for whom reservation wages for sought jobs and all variables are defined.

Notes

1. Recent work by economists on the reservation wages of blacks and whites includes a study by Borus (1982) using only one of the available reservation-wage measures in the NLS. Using the NLS data, he found blacks more willing to work, even after controlling for personal and local labor market characteristics. A study by Anderson (1980), which employed a more sociological perspective, stressed the reluctance of young blacks to do menial work.

2. See Freeman (1979).

3. For an excellent survey of the job-search literature, see Lippman and McCall (1976).

4. For a search model based on utility maximization that allows reservation wages to vary across jobs, see Holzer (1983).

5. See Lippman and McCall (1976).

6. The endogeneity of nonwage income with regard to reservation wages derives from the fact that participation in illegal activities or government transfer programs will be affected by employment status, which in turn may reflect reservation wages. The endogeneity of the duration of preceding spells reflects the fact that an individual's reservation wage may not vary greatly over time, and therefore current reservation wages reflect those in the past that are partly responsible for the earlier spell.

7. The "knowledge of the world of work" variable reflects the number of questions out of a possible eleven that were answered correctly, where the questions involved choosing definitions of specified occupations.

8. This possibility was first suggested to me in conversations with John Bound.

9. See, for instance, Marston (1976).

10. A classic statement of the importance of transitional wage norms and relative positions can be found in Dunlop (1957).

11. The use of white coefficients and black mean characteristics rather than vice versa for this calculation was based on two considerations. First, whites are generally considered the "baseline" group in the economy: using their coefficients along with the characteristics of other groups provides a standard by which to judge the actual behavior of the other groups. Second, table 1.6 shows that black reservation wages are less responsive to changes in their characteristics than are those of whites. Thus, using white mean characteristics with black coefficients will naturally show a smaller racial differential than vice versa.

12. Probit equations for employment in the past year included all of the determinants of wages, as well as a measure of own nonwage income and a set of dummy variables for occupational aspirations at age 35 to measure general attitudes toward work. When all of those variables were included, the coefficient on the inverse Mill's ratio in the wage equation for blacks was .420, with a standard error of .200; predicted log wages of blacks without previous employment was 6.30, which was far higher than the predicted log wages of blacks who had been employed. On the other hand, when the aspiration variables were dropped, the coefficient became $-.129$, with a standard error of .335; and the predicted log wage was 5.705, which was considered too low. The predicted values in the absence of the Mills ratio seemed intuitively most plausible.

13. Since the dependent variable here is dichotomous in value, it is more appropriate to use the logistic functional form than the linear. For the former model, $P = (1 + e^{-\lambda b})^{-1}$. Nevertheless, when some of these equations were estimated using logit, the results were extremely similar. The less expensive linear estimates were therefore used throughout the rest of the study and form the basis of the results reported.

14. The formula for the standard error of a difference between estimated parameters is $[(SE_w)^2 + (SE_b)^2 - 2cov(w,b)]^{1/2}$ where the covariance term between whites and blacks is zero.

15. In particular, the coefficients on neighborhood cleaning with respect to predicted weeks worked are $-.0087$ for northern whites and $-.0009$ for northern blacks, with standard errors of .0076 and .0089, respectively. The comparable numbers for cleaning are $-.0196$ and $-.0028$ for coefficients and .0072 and .0091 for standard errors; and for dishwashing they are $-.0361$ and $-.0077$ for coefficients with standard errors of .0065 and .0090, respectively.

16. See Holzer (1983), chap. 6.

17. The mean and standard deviation of durations of incomplete prior spells in the NBER survey are 203.89 and 142.15, respectively. Furthermore, the proportion of individuals without employment in the past year is .613, whereas it is .647 among northern blacks in the 1979–80 NLS. For northern whites this figure is .855.

18. Previous, completed nonemployment spells have means and standard deviations of 51.389 and 61.033 for whites and 64.216 and 71.803 for blacks. These durations are thus 25 percent higher for blacks, a percentage that is fairly consistent with the relative durations of current spells.

19. Since frequency and duration differentials contribute multiplicatively rather than additively, a 28 percent duration differential and a 55 percent frequency differential would constitute a 100 percent nonemployment differential.

20. Since reservation wages directly determine transitional probabilities, which in turn determine expected duration, several equations were estimated of the same form as equation (5), but the dependent variable was P_e , a dummy variable for transition probability that equals one if the subsequent nonemployment duration was 30 days or less. Results of this equation were generally consistent with those of comparable duration equations, though the coefficients were generally less significant in the former. This difference appeared to be caused by a greater variation in reservation wages within the post–30-day spells (which accounted for over 80 percent of the sample for both groups) than between the two groups of spells.

21. These extra variables were not included in the wage and weeks-worked equations because these equations were estimated for both 1979 and 1980 and because, in each of these years, the missing-value variables were endogenous with respect to wages and weeks worked. In other words, the missing-value variables were always zero if wages were earned and were always one if weeks worked were zero. This problem was not encountered in the duration equation because the missing-value variables for employment prior to 1979 were exogenous with respect to durations that occurred subsequent to 1979.

22. The formula for bias on the estimated coefficient of duration would be $b_{DN,xx} b_{xx,w} r$, where the former coefficient is the true regression coefficient on the omitted variable xx , and the latter is the auxiliary regression of the omitted on the included variable. In this case, the former would be negative and the latter positive, creating a downward bias.

23. The coefficients on reservation wages for blacks for equations using predicted wages or the more limited set of demand-side determinants as controls generally ranged from .4 to .5.

24. For instance, the coefficients on KWW , household income, and experience were significantly smaller for blacks than for whites in the duration equations.

25. The estimated duration elasticity of 1.8, together with reservation wage differentials of .176 relative to mean received wages, implies an effect of .317, which accounts for most of the racial differential in the regression sample for that region. Since sample sizes were fairly small here ($N = 71$), the results are subject to some doubt.

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Comment Ronald G. Ehrenberg

Holzer's paper has a number of attributes that I find very appealing. It focuses on an important topic and uses two different data bases to test the robustness of its findings. It uses alternative specifications of the variable of interest (reservation wages), examines the sensitivity of the results to alternative sets of control variables, uses a variety of statistical methods to confront a number of statistical issues, and honestly reports cases in which any of the above leads to differences in results. Finally, the paper does not claim more than the evidence warrants—a feature not present in enough academic research papers. My comments below should be taken with this overall evaluation in mind. I first raise some methodological issues and then turn to future research questions posed by the paper.

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Methodological Issues

Holzer estimates a three-equation recursive model in which a vector of exogenous variables (X_t) influences an individual's reservation wage at the survey date (W_t^r); these exogenous variables and the reservation wage influence the subsequent received wage; and the exogenous variables, the reservation wage, and measures of search intensity influence the duration of a completed spell of nonemployment, dated from the time the survey was conducted. Several methodological issues are raised by his analyses.

First, we are presented with a parsimonious specification of the exogenous variables (the X s). Missing from the list is any mention of unemployment insurance eligibility and receipt, reasons for nonemployment, whether the youths lived with their families, and variables that might influence subjective discount rates (which might vary systematically by race). These omitted variables may well bias the results.

Second, Holzer analyzes duration of "nonemployment"; there is no discussion of whether "out of the labor force status" and "unemployment status" can be meaningfully lumped into one state. Although there is disagreement in the literature on this point (compare Clark and Summers [1982] to Flinn and Heckman [1982]), Holzer's reported mean nonemployment spell durations of 317 (406) days for whites (blacks) in table 1.8 causes me to wonder about the intensity of job search that is being demonstrated by some of the youths in the sample and to question the relevance of the job-search framework.

Holzer also uses as a dependent variable the spells *from* the survey date, including the reservation wage *as of that date*. The latter is not allowed to vary with the duration of the nonemployment spell *up to* the survey date. But from the general theory of job search and the empirical work of Kiefer and Neumann (1979), among others, we know that reservation wages should be expected to vary with unemployment duration. If reservation wages *are* associated with the duration of spells up to the survey date (both because of the revision of expectations downward and the failure of the unemployed to be aware of general wage increases) and if the duration of spells prior to the survey date is correlated with race, Holzer's results will be altered accordingly.

In fact, Holzer notes in table 1.8 that spell durations prior to the survey date were some 35 percent longer for black youths than they were for white youths. One might also expect longer durations of nonemployment prior to the survey date to thwart job searchers' efforts, negatively influencing their subsequent wages and prolonging subsequent nonemployment spells. Thus, the durations of previous spells should probably enter all three equations. If this factor is omitted, the

error terms are likely to be correlated across equations, and an estimation method that takes account of this fact should have been used.

Fourth, in theory the same vector of variables X should appear in all three equations in Holzer's system, otherwise it is impossible to identify the independent effect of reservation wages on the other outcomes. Holzer solves the problem by some artificial restrictions that lead to additional omitted-variables problems. If the marginal effects of these excluded variables on duration and subsequent wages differ between whites and blacks, as does their correlation with reservation wages, this might explain why the apparent effects of reservation wages differ between whites and blacks.

Finally, Holzer's data permit him to distinguish between the nonemployed who sought employment in the past month and those who intended to seek work sometime in the next year. Since the former group is more likely to contain "active" job searchers, some reanalysis of their behavior alone is probably in order. Similarly, all of Holzer's analyses pool together youths of different ages. The NLS sample covers 14- to 21-year-olds; the NBER, 16- to 24-year-olds. Since we know unemployment experience changes dramatically as youths age, separate estimations for different age groups are also in order.

Future Research Questions

The first research question posed by Holzer's study is why black youths are more willing than white youths to accept low-wage, temporary jobs. In answering this question one should distinguish between the behavior of those searching for temporary or part-time jobs and those searching for full-time career jobs. Again, the behavior of different age groups would be relevant here.

Second, Holzer presents data on reservation wages for specified hypothetical travel times to work. Future research could examine whether the compensating wage differential that black youths require for travel time to work differs from that of white youths. If it does, why should this be so, and do Holzer's results suggest such a difference will affect nonemployment durations? Also, if data are available in Holzer's samples on average travel times to work for employed black and white youths, one might compute how such differentials affect nonemployment durations. For instance, Ellwood's findings (in this volume) that young blacks in Chicago spent more than two times as much time traveling to work as young whites in 1975 might be usefully applied here.

Finally, future research should explicitly consider the role of social insurance programs. I have already mentioned unemployment insurance, but more important may be transfer payments such as Aid to Families with Dependent Children, according to which a family's grant

depends on reported total family income. Do such programs discourage work effort and prolong spells of nonemployment among youths from low-income families? Are there racial differences in the effects on teenage nonemployment because the probability a teenager will be in a family eligible for AFDC may vary by race? Analyses along these lines could exploit the fact that AFDC program regulations vary across states and therefore provide a form of natural experiment.

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