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ABSTRACT

Drawing on theories of family organization and labor market structures, it is argued that teenagers are a useful population for research on the effects of race, household characteristics, and local labor markets on labor force participation. Predictive models of labor force participation were applied to a sample of all White and Black 16- to 18-year-olds residing with their parents in 1980 (nearly 51,000 youth). Data were drawn from a special version of the 1980 Public-Use Microdata Sample (PUMS-D) that incorporates labor market areas (LMA), --geographic areas defined by commuting patterns between places of work and places of residence of a local population. For White youth, family resources such as income, parental occupation, and parental employment were positively related to teenage employment. Family resources only moderately affected the labor force involvement of Black teenagers. Although Black youths from the lowest income categories were the least likely to be employed, higher levels of income or other family resources had little effect on employment. Local labor market characteristics (particularly unemployment rates and employment growth) were strong predictors of labor force participation for White youth, but these effects were substantially diminished for Black teenagers in general and for those residing in rural LMAs in particular. The results suggest that race in itself is an important factor, and support the queuing theory of labor force participation. Contains 54 references. (SV)

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NONMETRO AND METRO TEENS IN THE U.S. LABOR FORCE:
LOCAL LABOR MARKETS, RACE, AND FAMILY*

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ABSTRACT

Drawing on theories of family organization and labor market structures, we argue that teenagers represent a useful target population for research on the effects of race, household characteristics, and local labor markets on labor force participation. Toward this end, we apply predictive models of labor force participation to a sample of all white and black 16 to 18 year-olds living at home in nonmetropolitan and metropolitan labor market areas in the U.S. We found that beyond the higher labor force participation of white youth, local labor market characteristics and family resources affect teenage labor force participation. In this regard, the participation of white youth was more closely linked to family resources and local economic conditions than that of black youth. We discuss the implications of these findings.

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INTRODUCTION

The increasing attention paid to the deindustrialization of the U.S. economy has focused largely on implications for the adult labor force. The rise of the service economy and the dramatic increase in the labor force activity of women has been well documented (e.g., Beneria and Stimpson, 1987; Reskin and Roos, 1990). Less noticed is the fact that a great many of the service sector jobs are held by teenagers. Jobs characterized by low skill requirements, "off" hours (evenings and weekends), and low wages are often undesirable for adults but may be well-suited for teenagers who are in school and have few job skills or little experience (Greenberger, 1987). Estimates that at least one-third of all high school students and 63 percent of high school seniors hold part-time jobs (Charner and Fraser, 1988; Greenberger and Steinberg, 1986) suggest the significance of this segment of the labor force.

Compared to adult job holders, the general situation for teenagers differs in important ways (e.g., they lack work experience, they are likely to be in school and live with their parents, etc.). However, similar to other members of the labor force, youthful workers make job decisions based upon labor market opportunities, personal interests, financial needs, family obligations, and individual resources (Borus, 1984; Freeman and Wise, 1979; Lerman, 1986; Osterman, 1980; Shapiro, 1983). In short, there is good reason to speculate that forces which shape the adult work force apply to youth work force participation as well.

Our purpose in this paper is to examine the effects of family and economic circumstances on youth labor force participation. We do this by applying predictive models of labor force participation to the working experiences of 16 to 18 year-olds who are living at home. Particular attention will be on the interplay between household circumstances and local labor market conditions on the decisions

of teenagers to seek work outside the home. We are especially interested in how these models may operate differently for white and black youths in metropolitan and nonmetropolitan labor markets.

BACKGROUND

Analytic Framework

Youth Employment and the Family. The relation between parents and their offspring forms an important base from which children attain human capital (Coleman 1988; Lichter et al., 1993). Coleman (1988) suggests that changes in family structure, such as the increasing number of female-headed households, are eroding the family social capital of children. Although most attention on the human capital attainment process in children focuses on educational attainment, the labor market experiences of children is another dimension of human capital development that can be affected by these demographic changes in the family. Clearly, family circumstances play an important role in most decisions about work, and for adolescents, the family is by necessity a central component in decisions to enter the labor force.

Studies conducted during the economic depression of the 1930s examined the relationship between family and work, emphasizing adaptive responses of families to economic upheaval (e.g., Angel, 1936; Bakke, 1935; Lynd and Lynd, 1937). In a widely cited historical study of children during the 1930s, Elder (1974) concluded that economic deprivation and a large family were the greatest influences propelling youth into the labor force. Parental unemployment also was found to be a key impetus for youth labor force participation. More recently, Horan and Hargis (1991) found that in the 1890's the family economy overshadowed local economic conditions and regional factors as a determinant of youth labor force participation.

At face value, research findings linking family need to the labor force participation of married women (e.g., Eggebeen and Hawkins, 1990; Oppenheimer, 1982; Sweet, 1973) should apply to children's decisions to enter the labor force. However, the flow of teenagers into the adolescent work place has been largely from well-to-do families (Greenberger, 1987; Greenberger and Steinberg, 1986). Greenberger (1987) argues that teenage employment is driven to a large extent by increased

consumption of discretionary items (i.e., stereos, concert tickets, etc.) rather than necessities among teens. This may explain the general impetus for teenagers to seek employment, but it does not address the issue of the why some teenagers are more likely to participate in the labor force than others. Indeed, if increased consumption were truly the motivating force, we would expect to find this drive greatest for youth from families with fewer resources and that this would be reflected in higher, not lower, labor force participation rates.

The evidence is indisputable that youths with unemployed parents and those from impoverished households (especially black households in urban centers) are much less likely to have jobs than their more affluent counterparts (e.g., Allatt and Yeandle, 1992; Steel, 1991). There has been considerable speculation about why black youth or those from poorer households have comparatively low employment rates. Possible supply side causes mentioned in the literature include factors such as differing attitudes toward work, lower educational qualifications, the absence of job contacts and network ties, and displacement due to female adults moving into minority youth jobs (Phillips and Sandstrom, 1990; Rosenbaum et al., 1990). Possible demand side determinants include patterns of residential segregation, racial discrimination, and local industrial structure (Lerman, 1986; Osterman, 1980; Shapiro, 1983). However, the extent to which all or any of these possible determinants explain the distribution of youthful workers remains an empirical question.

Local Labor Markets. Our approach to labor markets follows from recent work which emphasizes the importance of space in explaining patterns of social relations between capital and labor, employer and employee (Lobao, 1993). In this respect, local labor markets are defined as "geographic areas within which transactions between buyers and sellers of labor are situated and occur on a regular basis" (Horan and Tolbert, 1984:10).

The geographic dimension is particularly important to our analysis of teenage labor force participation for at least two reasons. First, the limited mobility of teenage compared to adult workers magnifies the potential effects of local economic conditions on the labor exchange relationships between employers and young workers. Second, even though the de-industrialization of the economy and growth of the service sector spawned much of the current teenage job market, these

changes also had an impact on the geographical distribution of occupations and industries in the U.S. In this regard, the growing inequality between rural and urban areas has been especially notable (Falk and Lyson, 1988; Lobao, 1993). Patterns of youth employment indicate that suburban areas fare much better than metropolitan centers or rural areas (Greensberger, 1987; Osterman, 1980). While the high unemployment level of inner-city youth has been receiving increasing research and media attention (e.g., Lerman, 1986; Wilson, 1987), the question of how teenage workers fare in rural labor markets remains relatively unexplored.

Labor market characteristics also vary within rural and urban categories (Lyson et al., 1993). Economic development is always uneven; some areas grow while others decline in both urban and rural economies. For example, Beck and Colclough (1988) found substantial interurban variation in the earnings value of schooling for black males and females. Their findings suggest that returns on educational attainment are more tied to local economic conditions for black workers because they are less mobile. This is especially true in comparison to white males who are not only more mobile but also more sought after by employers. These outcomes are applicable to our concern with adolescent workers; we expect to find teenage labor force participation to be sensitive to local economic conditions in both rural and urban settings.

A MODEL OF YOUTH LABOR FORCE PARTICIPATION

In this section we present a model of labor force participation. Our model incorporates three types of variables: indicators of household resources and organization¹, socioeconomic characteristics of local labor market areas, and individual person characteristics. We then empirically apply this model to the labor force behavior of black and white youth in metropolitan and nonmetropolitan labor market areas.

Household factors. Our household variables are income, parental employment, household type, number of children, and occupation of the household head. Income and parental unemployment are important because these factors are prime indicators of family resources. Early studies (e.g., Elder, 1974) found that family need, as indicated by parental unemployment and low family income, was associated with youth labor force participation. The family need explanation for youth labor

force involvement has been challenged by later studies (e.g., Allatt and Yeandle, 1992; Steel, 1991) that show youth labor force participation to be associated with family resources such as higher income and parental employment. Our model will allow us to examine the relative merits of these explanations for white and black youth in rural and urban labor market areas. The number of children in a family also has a bearing on family resources. Studies that deal with the relationship between family life cycles and income adequacy suggest the importance of considering age-related costs because child rearing expenses increase as children pass from pre-school years into adolescence (Oppenheimer, 1982; Swcet, 1973). From the family need perspective, we would expect that increased costs of children in a family (as indicated by their number and ages) would propel working age children into the labor force. We would expect the costs of children to be less salient from the family resources perspective.

Class status is another factor related to family resources and needs. Oppenheimer (1982) suggests that family class status, as indicated by occupation of the household head, affects the perceived severity of family life cycle squeezes. In particular, she found that women whose husbands had lower paying white-collar jobs were under more pressure than other married women to find work outside the home. Extending this rationale to families with working age children, we would expect to find a similar effect for family status on the decisions of these children to enter the labor force.

Because one of the most notable changes in the family in the U.S. has been the increase in female single-parent households (Sweet, 1973; Weiss, 1984), we distinguish between married and single-parent households in our model. Single mothers are at a distinct disadvantage in labor market participation and are more likely than two-parent families to be poor and/or black (Rank, 1986). An important question is the extent to which family structure affects labor force participation of children net of the effects of family economic circumstances (i.e., unemployment, low wages, etc.).

Local labor market characteristics. Our model includes several local labor market characteristics which have been cited as influencing youth labor force participation. These are unemployment rates (Rees, 1986; Borus, 1984); school enrollment levels (Ashby, 1985); the level of youth earnings (Baumer and Van Horn, 1985); and the supply of teenagers (Rees, 1986; Freeman,

1982; Bowen and Finegan, 1969). We also include a measure of local employment opportunity and cost of living. Finally, our model takes into account the geographic region in which labor markets are located.

Metropolitan status. Because of the marked differences found between the life circumstances of rural and urban families (e.g., Lichter et al. 1993), we disaggregate our sample by the metropolitan status of local labor markets. We generate separate models for youth from large metropolitan centers, from smaller metropolitan centers, and from nonmetropolitan areas.

Race. Race is also used a criterion for disaggregating our sample. It has been well established that minority youth, especially blacks, are much less likely to be in the labor force than white youth (e.g., Freeman and Holzer, 1986; Mare and Winship, 1984). By treating these groups separately, we can more closely examine the racial component of labor market participation.

Person characteristics. Several individual characteristics which have been shown to be strongly associated with labor force participation of youth are entered in our model as controls. First, we include gender which has a marked and predictable effect on youth employment. Researchers consistently find that the rate of teenage male labor force participation is higher than that of females and that the kinds of jobs teenagers hold are stratified by gender (e.g., Fullerton, 1989; Hamilton and Powers, 1990). Because older youth participate in the labor force at a significantly higher rate than younger youth (Borus, 1984; Mare et al., 1984), we control for age. Finally, we use school attendance as a control variable because being in school significantly decreases the propensity of youth to work (e.g., Borus and Santos, 1983; Freeman and Medoff, 1982).

DATA AND MEASUREMENT

Data: Labor Market Areas and the Public-Use Microdata Sample-D.

Our basic geographic unit of analysis is the labor market area (LMA). LMAs are geographic areas defined by commuting patterns between places of work and places of residence of a local population; each LMA represents the economy of a local area by encompassing behavior of both the buyers and sellers of labor. LMAs (N=382) were derived from the 1980 Census by using a

hierarchical clustering technique to aggregate counties on the basis of commuting ties. All county and county-level equivalents in the fifty states and the District of Columbia are included (Killian and Tolbert, 1993; Tolbert and Killian, 1987).²

A particular benefit of the LMA geography is that it is the basis for a special version of the 1980 Public-Use Microdata Sample (PUMS-D). The PUMS-D consists of a one percent sample of household and individual records within LMAs. Because it incorporates the LMA geography, the PUMS-D allows researchers to examine relationship between the local economy and individuals residing in it (Tolbert and Killian, 1987). Our analysis is based upon a sample of youth in the U.S. aged 16 to 18 years old residing with their parents (N=50,998).³

As aggregations of counties, the LMA geography enables us to incorporate other sources of county-level data into our file. We have added to our PUMS-D file data on unemployment and employment growth from the County Statistics File 3 (Data User Services Division, Bureau of the Census).

Analysis.

Our analysis focuses on the labor force participation of the teenagers in our sample. We rely on logistic regression procedures for our analysis because our dependent variable, youth labor force participation, is a dichotomous variable (Agresti, 1990). In addition to applying our model to the entire sample, we disaggregate our sample into three categories based upon the metro/nonmetro status of LMAs and two categories according to race.

Dependent Variable.

Our dependent variable is the census definition of labor force participation. Youth who were employed or actively seeking employment are considered to be in the labor force.⁴ Labor force participation is assigned a value of one, nonparticipation a value of zero.⁵

Independent Variables.

Household Characteristics. Household type is operationalized as the distinction between married-couple and female-headed households; we do not include other household types in our sample. Parents who were employed during the reporting period are treated as employed and all

others are classified as not employed. Household income is the total family income from all sources for 1979 with the exception of any income derived from youths' employment. Because preliminary analyses suggest that income may have a nonlinear effect, we treat income as a ten-category dummy variable in our models. For our model applied to black households, we collapse income to six categories due to the smaller number of cases in the higher income categories.

Number of children is a weighted measure of the age-specific cost of each child in the household. Our procedures follow Oppenheimer (1982) as modified by Keithly (1992). Scores were assigned as follows: 1 for each child under six years old, 1.5 for each child 6 to 11 years, and 2.33 for each child 12 to 18 years. These scores were summed for each household.

Three occupational categories are identified: white collar, blue collar, and pink collar. Pink collar refers to lower echelon service occupations that are often classified as white collar but are lower-paying and typified by female and minority workers (Howe, 1976; Sokoloff, 1980). To avoid omitting from our analysis youth with parents who have no occupational status (i.e., no job within the previous five years), we include a category for no occupational code.

Local Labor Market Characteristics

We use three categories suggested by Tolbert and Killian (1987) to define the rural/urban character of labor market areas. Nonmetro LMAs either contain no counties that are classified as metropolitan, or over 50 percent of total the population is rural. Small metro labor market areas contain at least one metropolitan center of one million or fewer residents. Large metro LMAs contain metropolitan centers that exceed one million in population.

We measure labor supply as the proportion of 16- to 18-year-olds relative to the population over 16 in the labor market area. As a measure of the economic performance of labor market areas we include the percentage change in the number of nonfarm jobs in each labor market area between the years 1975 and 1980 (see Deseran and Singelmann, 1993). In addition, the average unemployment rate was calculated for each LMA during the period 1975 to 1980.

School enrollment is the percent of youths aged 16 to 18 years enrolled in school for each labor market area. The level of youth earnings in a labor market area is measured as the average

hourly pay received by all employed youth, 16-18 years old, for the reference year. To account for local variations in the cost of living, we calculate the average gross rent paid by residents who moved to the labor market area within the last year. Gross rent consists of contract rent plus the cost of utilities. Finally, we dichotomize region as the census-defined South versus the nonsouth.

Person Characteristics

Gender is a dummy variable with males coded 0 and females 1. Age of youths is entered in the models as three discrete categories -- 16, 17, and 18. Youths attending school during the reference period are coded 1 and those not attending school 0. Race is entered in the model as a multiple dummy variable for white, black, and other. White is the missing reference category. We include only black and white households when we desegregate the sample by race.

FINDINGS

Our logistic regression models allow us to simultaneously account for the effects of household, local labor market areas, and person characteristics on the log odds that youths will be in the labor force. In Table 1 we present our results for the full sample and for subsamples based on the metro/nonmetro status of LMAs. We apply our model to white and black youth separately in Tables 2 and 3.

Household Characteristics. The coefficients for household effects on the log odds of teenage participation reported in Table 1 reveal several noteworthy results. First, the findings for the full sample (left column) reveal a consistent and positive relationship between household income and youths labor force participation. Although this effect holds across LMA categories in general, it clearly is weaker in nonmetro LMAs where the only significant effect on the log odds of labor force participation is for the lowest income category.

Table 1 about here

The results for household type indicate that youths from single-parent households are more likely to enter the labor force than those from married couple households. The coefficients are significant for nonmetro and large metro LMA teenagers. While this result suggests that family organization affects teenage decisions to enter the labor force, as we shall see below, this effect is considerably weakened when we disaggregate our sample by race.

Parental employment is a strong predictor of youth employment. The coefficients show that compared to youth with both parents employed, youth of non-employed parents and youth from two-parent households with only one parent employed, have significantly lower log odds of being in the labor force themselves. Of particular interest is apparent strong effect of the mother's employment status. The log odds of labor force participation by youth with two employed parents and those with an employed single female parent are not significantly different. However, the log odds for youth from married couple families where only one parent (typically the father) is employed are negative and highly significant compared to households with two working parents. This result is consistent across LMA categories. Similarly, the results for occupation of household head reveal a significant and positive effect across LMA categories of white collar compared to blue collar on the log odds of youth labor force participation. Interestingly, we find no significant difference between white and pink collar categories.

LMA Characteristics. Both unemployment rates and employment growth, our two core indicators of local economic conditions, affect youth labor force participation as expected. The log odds of youth working decline as local unemployment rates increase, regardless of the metro/nonmetro status of the LMA of residence (although the effect is not as strong in large metro LMAs). Employment growth has a strong and positive effect in small metro LMAs and large metro LMAs; the effect in nonmetro LMAs is not significant. Evidently, down-turns in rural economies (as indicated by high unemployment rates) seriously restrict youth employment opportunities similar to what we find in metro LMAs, but unlike the situation for urban areas, economic growth in nonmetro LMAs (as indicated by employment gains) have a very limited effect on improving the log odds of youth employment.

Several other labor market area effects merit comment. Labor supply, which has mixed effects across LMA categories in Table 1, consistently suppresses the log odds of teenage labor force participation, especially in large metro centers. Similarly, the proportion of youth attending school (an indicator of the quality of the youth labor force) has a uniformly positive effect across LMA categories (although not significant in small metro LMAs). A higher cost of living has a significant effect only for youth labor force participation in nonmetro LMAs.

Person Characteristics. Our findings for individual person characteristics were as expected. Being male, older, and out of school are all positively and highly associated with teenage jobholding. The marked and consistent effect of race, net of other factors such as income, household type, and the local economy, prompted us to apply our model independently to white and black households (Tables 2 and 3). While our analysis can not directly address questions about the underlying causes of racial disparities, a comparison of white and black teenage labor force participation may illuminate the extent to which race mediates the effects of household factors and local labor market characteristics.

Race and Teenage Labor Force Participation. Because white households represent over 80 percent of the full sample, it is not surprising that, with few exceptions, the findings in Table 2 are similar to those in Table 1. Strong effects remain for household income, parental employment status (especially with respect to the mother's employment status), and occupation on the log odds of youth labor force participation. Results for LMA characteristics also remain unchanged for unemployment rates, employment growth, labor supply, proportion in school, local cost of living, and earnings levels.

Several differences appear in the results for white teens, especially for those from large LMAs. First, we find that employment growth in nonmetro LMAs and family size in large metro LMAs become significant. Second, coefficients drop from being significant for household type, the no collar occupational category, and the proportion in school for large metro LMAs. Finally, labor supply in small metro LMAs loses significance when our model is applied to white teens.

Table 2 about here

The logistic regression coefficients for black teens (Table 3) retain some of the patterns from the previous applications, but we also find some important contrasts compared to white teens. Turning first to the effects of household characteristics, we find that compared to the effects of household income in metro LMAs, household income in rural LMAs has little impact on the odds of either white or black youths participating in the labor force. The situation in small and large metro LMAs is somewhat different, however. Here we find that the log odds of labor force participation for black youth are significantly depressed only in the very lowest income categories, while for white youth household income has a much more robust effect. Most categories of white household income significantly affect the log odds of labor force participation. In short, These findings suggest that labor force participation of black and white youths is not driven by family economic need. Also, our findings show that, unlike the situation for black youths, white youths are propelled into the labor force by increasing family resources. We will return to this point in our conclusions.

Table 3 about here

It is important to note that while household type is significant for white teens in only the nonmetro LMAs, this factor is not significant for black teens for any category of LMA. This is of particular interest given the attention afforded to the black family. It is commonly assumed that single-female headed households, especially if they are black, represent a particularly troublesome situation for youth. These findings indicate that family organization in itself has little effect on labor force participation of youth.

Even more interesting are the differences of the effects of parental employment on black and white teen labor force participation. While there is a consistent and strong relationship between

employed parents and labor force participation for white youth, parental employment only has a significant effect for black youths from small metro LMAs. This is especially noteworthy because parental unemployment is frequently pointed to as one of the key factors associated with low labor force involvement of youth (e.g., Allatt and Yeandle, 1992; Steel, 1991). Our results indicate that this association is much stronger for white than black youths.

The occupation of household head is another factor strongly associated with white youth labor force participation but which has no apparent significance for black youth, regardless of the labor market category. Indeed, the log odds of labor force participation are lower (although not significantly lower) for youth from white collar families in nonmetro and in small metro LMAs.

Overall, then, our results for household factors show clear-cut differences between white and black youth. Factors which clearly affect white youth, such as household income and parental occupation, are of little consequence for black youth.

Turning to the results for labor market area characteristics in Table 3, we again find substantial differences between black and white youth. In general, local economic conditions are less salient to the odds of black youth labor force participation. The strong negative effect of unemployment rates found for the white sample is considerably less for the black sample, although the effect remains negative as would be expected. Only in the small metro LMAs is unemployment significant for black youths. Employment growth, another strong factor for white youth employment, is significant for black youth only in large metro LMAs and actually depresses the log odds of black youth participation in rural LMAs.

CONCLUSIONS

Our goal in this paper has been to explore the joint effects of local economic conditions and family circumstances on the labor force participation of youth. Drawing from theories of family organization and of labor market structures, we developed logistic regression models incorporating

household, labor market, and individual variables. Using a special version of the 1980 U.S. Census Public Use Microdata File (PUMS-D), we applied these models to a sample of 16- to 18-year-old youths living at home. Our analytical strategy was to compare model outcomes across categories of local labor market areas (nonmetro, small metro, and large metro) and to separately evaluate the experiences of white and black teenagers. In general, our model operated well for white teenagers, but we found major differences for black teenagers and important variances across the types of labor market area in which teenagers reside.

The relationship between family resources and teenage labor force participation was central to our analysis. We found clear evidence that for white youth, family resources (as measured by income, parental occupation, and parental employment) are linked to teenage labor force involvement. Youths from higher income families, youths whose parents (especially mothers) are employed, and youths from white collar families are much more likely to be active in the labor force. Although our data do not allow us to empirically probe further into why family resources have this effect on teenage labor force participation, these findings are consistent with suggestions that youth from better-off families have access to broader social networks and mobility within local labor markets and hence have better access to jobs (e.g., Lerman, 1986; Phillips and Sandstrom, 1990; Rosenbaum et al., 1990; Shapiro, 1983).

Our results pertaining to labor market characteristics revealed a marked relationship between local economic circumstances and the labor market participation of youths, especially for white youths. Unemployment rates and employment growth in local labor markets stand out as particularly strong predictors of labor force participation. However, the effects of local economic conditions were substantially diminished for black teenagers in general and those residing in rural LMAs in particular.

While our findings uncovered patterns of effects that indicate the utility of treating youth as an integral part of the larger economy, our results also demonstrated that household and local economic factors do not uniformly affect all youth. In this regard, race has a dramatic impact on the operation of local economic and household factors. This is illustrated best in our findings for household characteristics. The positive and strong effect of family resources was largely restricted to white

youths. Family resources only moderately affected the labor force involvement of black teenagers; specifically, we found that black youths from the lowest income categories were least likely to be in the labor force, but that higher levels of income or other family resources (i.e., parental employment and occupation) had little bearing on participation. In addition, contrary to popular expectations regarding the detrimental effects of the female-headed family for black children, we found no difference between the log odds of the labor force participation of black youth from two-parent and from single female-headed families. What seems remarkable about this finding is that amidst the prevailing fear that the nation is experiencing a crisis in family structure, for black youth, at least in terms of labor force participation, family organization appears to matter little.

Our findings for race take on added significance when we consider that the teenage labor force represents a very restricted and specialized sector of the larger economy. Employers of teenagers pay little attention to educational attainment, previously learned skills, or other human capital characteristics which generally are requisites for adult workers (Boylan, 1993; Rosenbaum et al.; 1990). Thus, the marked difference between labor force participation rates of black and white youths and the race-specific differences in the performance of our model provide strong evidence that race in itself is an important factor. The question of how race interacts with family resources and labor market characteristics begs attention.

We believe that the queuing theory of labor force participation offers a plausible approach to the question of race and teenage labor force participation. In their study of changes in the gender stratification of work, Reskin and Roos (1990) view occupational composition as a the product of a dual-queuing process: on one hand are labor queues or groups of workers rank-ordered in terms of their attractiveness to employers, and on the other hand are job queues which are ranked-ordered in terms of their attractiveness to workers. From this perspective, work segregation is not merely the sum of individual decisions, but results from socially structured rankings of groups competing for resources (Reskin and Roos, 1990).

Applying the queuing analogy to our findings, there can be little doubt that white youths compared to their black counterparts occupy favorable positions in job queues. This would explain

why labor market and family variables have a greater effect on labor force participation of white teenagers. Even though white teens tend to be at the front of job queues, the relative distribution of their positions within this part of the queue are clearly effected by family resources. White youths from high resource households are more favorably positioned than other white youth and hence have considerably higher odds of getting jobs. Black youths, on the other hand, because they are further back in the queue, gain little advantage from family resources relative to white or other black teenagers. The position of teenagers in job queues also accentuates the effects of local economic conditions. During good times when jobs are being added to the economy (or during bad times of high unemployment) those at the front of the queue are more immediately affected than those to the rear. Our results which show a substantially stronger effect of labor market area characteristics on white than on black teenagers point to black teenagers' relatively disadvantaged queuing position.

Queuing theory also offers clues about why our model variables are not as powerful for estimating the odds of black teenager labor force participation in rural compared to metropolitan labor market areas. Because rural areas tend to be less economically diverse and contain fewer job opportunities than larger metro labor market areas, available jobs would be filled by those closer to the front of the queues than would be the situation for metropolitan labor market areas. With the greater number of job opportunities in metropolitan areas, job opportunities would reach deeper into queues, hence household and labor market factors would more likely affect the opportunities of the black youths in the back of the queues.

Although queuing theory offers a useful framework for interpreting our findings, the key question of why teenage job queues are racially stratified remains. This question directs our attention to such issues of institutional racism and firm-level hiring practices in local labor markets. Although an empirical examination of these issues is beyond the purview of this paper, it is important that future investigations of teenage labor force participation pursue this question.

END NOTES

1. Although households and families are not necessarily equivalent, our sample includes only households with one family present. Hence we use the terms interchangeably.

2. See Killian and Tolbert (1993) and Tolbert and Killian (1987) for a more detailed discussion of the derivation of labor market areas. Although more recent data would be preferable for our analysis, none currently exist that include the LMA geography.

3. For the 1980 Census, half of the respondents were randomly selected to provide more detailed migration and commuting information. Our sample was drawn from this migration subsample of the PUMS-D. Only youth living in married couple household or households with a single female parent were included. Youth in single male parent households were excluded from the analysis because of the relatively low number of such households and youth in subfamilies (that is, those with their own offspring living with them) within the households of their parent(s) were eliminated.

4. Of course, as with all Census data, there are problems even with this seemingly straightforward measure. The distinction between being unemployed (out of work and looking for a job) and being out of the labor force (out of work and not looking for a job) is particularly acute for younger workers (Freeman and Wise, 1979).

5. By restricting our analysis to labor force participation, we do not wish to imply that other measures of labor force attainment would not be as useful in the assessment of youthwork (i.e., industrial and occupational categories, earnings, hours worked, unemployment). However, because participation in the paid labor force is a distinct behavioral indicator, we find it to be well suited for our questions concerning household and labor market effects. We should note that regression analyses for earnings of youth did not yield significantly different findings than reported here (Keithly, 1992).

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Table 1. Logistic Regression Coefficients for Youth Labor Force Participation for All Households by LMA Categories.

Individual Characteristics	Full Sample (50998)	Labor Market Area Category		
		Nonmetro (8295)	Small/med Metro (16678)	Large Metro (26025)
HOUSEHOLD CHARACTERISTICS				
Household Income				
<\$5,000	-0.259***	-0.414**	-0.230*	-0.240**
5,000-9,999	-0.125**	-0.184	-0.116	-0.119
10,000-14,999	-0.043	-0.129	-0.073	0.013
15,000-19,999	-.---	-.---	-.---	-.---
20,000-24,999	0.052***	0.090	0.163**	0.165**
25,000-29,999	0.147***	0.009	0.126	0.207***
30,000-34,999	0.196***	-0.032	0.296***	0.203***
35,000-44,999	0.219***	0.050	0.230***	0.254***
45,000-54,999	0.155**	-0.028	0.174	0.191**
>54,999	-0.050	-0.057	-0.123	0.006
Household Type (1=two-parent)	-0.207**	-0.383*	-0.133	-0.216*
Parental Employment				
Both Parents	-.---	-.---	-.---	-.---
Single-female parent	-0.067	-0.122	-0.027	-0.088
One of Two Parents	-0.290***	-0.223***	-0.298***	-0.304***
No Parent Employed	-0.381***	-0.405***	-0.329***	-0.419***
Number of Children	0.005	-0.013	0.004	0.008
Occupation of Head				
Blue Collar	-0.142***	-0.163**	-0.188***	-0.110**
Pink Collar	-0.031	-0.051	-0.002	-0.028
None	-0.330***	-0.436***	-0.458***	-0.212**
White Collar	-.---	-.---	-.---	-.---
LMA CHARACTERISTICS				
Nonfarm Employment Growth 75-80	0.987***	0.338	0.868***	1.515***
Unemployment 75-80	-4.598***	-4.629***	-5.735***	-3.114*
Labor Supply	-5.455***	-4.896*	-4.370*	-9.342***
Proportion in School	0.917***	1.081***	0.223	1.908**
Earnings Level	0.012	0.014	0.016	0.000
LMA Category				
Nonmetro	-0.137***	-.---	-.---	-.---
Small/medium metro	-.---	-.---	-.---	-.---
Large metro	-0.040	-.---	-.---	-.---
Geographic Location				
Northeast	-0.009	-0.029	0.220***	-0.149**
West	0.049	0.327***	0.254***	-0.161**
Northcentral	0.285***	0.260***	0.339***	0.251***
South	-.---	-.---	-.---	-.---
Cost of Living	0.001**	0.003**	0.000	0.000
INDIVIDUAL CHARACTERISTICS				
Gender (1=female)	-0.179***	-0.257***	-0.293***	-0.085**
Age				
16	-1.170***	-1.219***	-1.066***	-1.230**
17	-0.495***	-0.476***	-0.455***	-0.527***
18	-.---	-.---	-.---	-.---
Race				
Black	-0.778***	-0.749***	-0.547***	-0.881***
Other	-0.577***	-0.851***	-0.520***	-0.561***
White	-.---	-.---	-.---	-.---
In School (1=yes)	-0.983***	-1.220***	-1.021***	-0.885***

* p < .05; ** p < .01; *** p < .001

Table 2. Logistic Regression Coefficients for Youth Labor Force Participation for White Households by LMA Categories.

Individual Characteristics	Labor Market Area Category			
	All White (N=41,712)	Nonmetro (N=7,238)	Small/med Metro (N=13,955)	Large Metro (N=20,519)
HOUSEHOLD CHARACTERISTICS				
Household Income				
< \$5,000	-0.239***	-0.364*	-0.225*	-0.213*
5,000-9,999	-0.122*	-0.162	-0.065	-0.168*
10,000-14,999	---	---	---	---
15,000-19,999	-0.082	-0.119	-0.116	-0.042
20,000-24,999	0.133**	0.091	0.124	0.152*
25,000-29,999	0.146***	0.046	0.103	0.211***
30,000-34,999	0.175***	-0.023	0.282***	0.168**
35,000-44,999	0.217***	0.082	0.197**	0.263***
45,000-54,999	0.164**	-0.022	0.173	0.207**
> 54,999	0.070	-0.016	-0.147	-0.017
Household Type (1=two-parent)	-0.180*	-0.385*	-0.164	-0.0120
Parental Employment				
Both Parents	---	---	---	---
Single Parent	-0.012	-0.086	-0.023	0.030
One of Two Parents	-0.301***	-0.217***	-0.307***	-0.325***
No Parent Employed	-0.439***	-0.434***	-0.371***	-0.479***
Number of Children	0.011**	-0.007	0.011	0.015*
Occupation of Head				
Blue Collar	-0.155***	-0.190**	-0.210***	-0.110**
Pink Collar	-0.013	-0.040	-0.023	0.007
None	-0.295***	-0.396***	-0.527***	-0.094
White Collar	---	---	---	---
LMA CHARACTERISTICS				
Nonfarm Employment Growth 75-80	0.833***	0.664*	0.864***	0.963***
Unemployment 75-80	-6.721***	-5.163***	-6.209***	-8.364***
Labor Supply	-4.480***	-4.969*	-3.223	-6.443*
Proportion in School	0.787***	1.125***	0.097	1.042
Earnings Level	0.014	-0.002	0.006	0.117
LMA Category				
Nonmetro	-0.084*	---	---	---
Small/medium metro	---	---	---	---
Large metro	0.004	---	---	---
Geographic Location (1=South)	-0.198**	-0.214**	-0.312***	-0.102*
Cost of Living	0.000	0.003**	0.000	-0.001
INDIVIDUAL CHARACTERISTICS				
Gender (1=female)	-0.157***	-0.241***	-0.274***	-0.052
Age				
16	-1.190***	-1.225***	-1.112***	-1.239***
17	-0.495***	-0.473***	-0.484***	-0.513***
18	---	---	---	---
In School (1=yes)	-1.046***	-1.269***	-1.067***	-0.947***

* p < .05; ** p < .01; *** p < .001

Table 3. Logistic Regression Coefficients for Youth Labor Force Participation for Black Households by LMA Categories.

Individual Characteristics	Labor Market Area Category			
	All Black (N=6,891)	Nonmetro (N=871)	Small/med Metro (N=2059)	Large Metro (N=3961)
HOUSEHOLD CHARACTERISTICS				
Household Income				
<\$5,000	-0.545***	-0.557	-0.567**	-0.529***
5,000-9,999	-0.304***	-0.210	-0.448**	-0.254*
10,000-14,999	-.---	-.---	-.---	-.---
15,000-19,999	-0.152	0.422	-0.257	-0.205
20,000-24,999	0.156	0.434	0.202	0.080
>24,999	0.076	-0.226	0.057	0.119
Household Type (1=two-parent)	-0.158	-0.016	0.100	-0.395
Parental Employment				
Both Parents	-.---	-.---	-.---	-.---
Single Parent	-0.066	0.185	0.084	0.240
One of Two Parents	-0.197*	-0.084	-0.493***	-0.036
No Parent Employed	-0.038	0.106	0.005	-0.126
Number of Children	-0.006	-0.044	0.002	-0.004
Occupation of Head				
Blue Collar	0.045	0.414	0.129	-0.036
Pink Collar	-0.040	0.420	0.167	-0.197
None	-0.345**	0.008	-0.191	-0.491**
White Collar	-.---	-.---	-.---	-.---
LMA CHARACTERISTICS				
Nonfarm Employment Growth 75-80	1.165***	-0.234	0.574	2.365***
Unemployment 75-80	-8.656***	-7.706	-10.846*	-3.216
Labor Supply	-7.505*	-11.553	-6.863	-4.898
Proportion in School	1.084	1.519	-0.374	4.666**
Earnings Level	0.021	0.190	0.043	-0.136
LMA Category				
Nonmetro	-0.330**	-.---	-.---	-.---
Small/medium metro	-.---	-.---	-.---	-.---
Large metro	-0.100	-.---	-.---	-.---
Geographic Location (1=South)	-0.039	-0.454	-0.172	0.098
Cost of Living	-0.001	0.003	0.001	-0.004*
INDIVIDUAL CHARACTERISTICS				
Gender (1=female)	-0.277**	-0.478**	-0.423**	-0.162*
Age				
16	-1.041***	-1.186***	-0.828***	-1.166***
17	-0.457***	-0.524*	-0.294*	-0.542***
18	-.---	-.---	-.---	-.---
In School (1=yes)	-0.742***	-0.924***	-0.835***	-0.672***

* p < .05; ** p < .01; *** p < .001