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ABSTRACT Debates continue to abound regarding the importance of having an educated, well-trained workforce that can effectively fill the technology-sophisticated jobs emerging in the South. No doubt, the ticket to a decent job continues to be tied to a college education. But, the reality is that not all adults are able to secure a post-secondary education. The question is what prospects exist for those individuals who become non-college bound? This study devotes attention to the plight of young adults in the South who graduated from high school in 1982 and who pursued no post-secondary education of any type over the subsequent ten year period. Special focus is given to their job experiences over time, documenting the extent to which their occupational positions in the local labor market improved or deteriorated over the course of ten years. Our results reveal that serious challenges will plague those individuals who enter the workforce with no formal education beyond high school.

In 1987, a study appeared that set the stage for active discussion and debate regarding the state of America's workforce. That document, titled *Workforce 2000*, argued that the U.S. labor force was showing symptoms of being poorly positioned for the jobs of the future — jobs that called for better skilled and educated workers having the capacity to effectively compete in a complex global economy (Johnston and Packer 1987). A follow-up study, released in 1997, rang a similar theme regarding America's need to upgrade the education and skill levels of its workforce (Judy and D'Amico 1997).

While the twin workforce reports captured the attention of policy makers within national, regional and state arenas, not all labor market analysts embraced the conclusions arrived at in these studies. In reaction to the *Workforce 2000* document, for example, Mishel and Teixeira (1991) offered evidence that no significant enrichment in the job skill requirements was taking place in U.S. labor markets and as such, no appreciable deficiency in the human capital resources of our country's labor force existed. Similarly, within the context of rural America, Killian and Beaulieu (1995) observed that the labor force problems of rural areas appeared to be less a matter of poorly-skilled workers, and more a matter of rural localities having an insufficient number of decent jobs that could take full advantage of the education and skills already possessed by many rural workers.

In a recent assessment of the "skills gap" debate, contributors to an edited volume by Gibbs, Swaim and Teixeira (1998) noted that present day rural America continues to do remarkably well in its capacity to educate students, to equip workers with important cognitive skills, and to provide vocational education opportunities. Unlike the recent past, however, rural workers are making important headway in becoming more actively engaged in the new economy of the world — one in which technology skills, interpersonal relationships, and group problem-solving capabilities are more a part of the talents that they bring to the work place. At the same time, challenges linger, particularly the need to shore up the academic and job training credentials, and "new economy-related skills," of a broader segment of the rural workforce (Swaim 1998; Teixeira and McGranahan 1998).

This article is intended to focus on one of the groups that may be experiencing difficulty in the work force as a result of their limited human capital -- America's non-college bound youth. More specifically, our concern is with those southerners who have terminal high school degrees and who have not enrolled in any type of post-secondary education programs or training courses over a period of ten years (1982-92). Who are the non-college bound youth of the South in terms of their demographic and socioeconomic characteristics? How do they fare as they enter the local labor market? Given their limited education and undeveloped skills, do they get relegated to jobs situated in the least favored sectors of the economy? Is their access to better jobs shaped by factors such as their gender, race/ethnicity, or place of residence? How do the labor-force experiences of these in-

dividuals ten years out of high school compare to those of their high school classmates who have earned baccalaureate degrees or higher? Responses to these questions are likely to offer a stronger basis for delineating the major challenges that may await the South's non-college bound youth as they seek to survive in a complex, highly-competitive global marketplace.

In the following sections, we discuss the changing complexion of the economy and outline the key challenges that are likely to confront those with more limited formal education. In particular, we focus on literature that addresses the set of problems impacting the non-college bound as they seek to achieve economic security. Next, we discuss the concept of dual labor markets and adopt it as a theoretical framework for assessing the extent to which non-college bound individuals are able to improve their placement within the local labor market sectors over time. Finally, we explore the important questions posed above with a sample of non-college bound youth from the South and discuss the implications of our findings.

The decision to focus attention on the South rests on three key factors. For one, the South is home to the largest number of non-college bound youth in the nation. According to Beaulieu, Israel and Cluck (1998), nearly 36 percent of non-college bound youth in this country are residents of the South. Secondly, while demographic studies have noted that our country is becoming increasingly more diverse with regard to race and ethnic composition, such diversity has been an integral part of the cultural fabric of the South for decades. For example, of the 4.7 million African-Americans who reside in nonmetropolitan areas of the United States, nearly 91 percent are nonmetro southerners (Murdock et al 2000). Thus, the South represents an ideal setting for exploring how race/ethnicity might shape one's labor force experiences. Thirdly, given that the largest share of the country's rural population are residents of the South (Murdock et al 2000; Wimberley and Morris 1996), it seems reasonable to utilize this region as the context for exploring how labor force experiences of non-college bound youth might vary across urban/rural space.

Non-College Bound Students and Job Availability

Evidence appears to suggest that 40 percent or more of our nation's youth do not proceed to college upon completing their high school degree (Gibbs 1998; William T. Grant Foundation 1988; U. S. Gen-

eral Accounting Office 1991; U. S. Department of Education 1997). In years past, this fact raised little concern given that non-college bound youth could move easily into the labor force by securing a job in the goods-producing sector of the economy. In many respects, these jobs paid decent wages for unskilled or semi-skilled laborers (Reich 1992).

However, the situation has shifted dramatically over the course of the last two decades. As Katz (1992) notes, the industrial and occupational distribution of U.S. employment has moved in the direction of favoring better-educated over less-educated workers. Three key forces serving as the underpinnings of this trend are the globalization of our nation's economy, the introduction of new sophisticated computer technologies, and enhancements in the knowledge-intensive, problem-solving capability needed by workers (Judy and D'Amico 1997; Katz 1992; Reich 1992). These changed circumstances have led to major declines in jobs tied to the goods-producing industries of the United States -- a sector which has experienced a loss of well over a million jobs in manufacturing alone since 1989 (Reich 1992). In its place have come a host of new jobs in the service and retail sectors for non-college bound youth, but at wage rates well below those paid by manufacturing-based firms. Such structural shifts have had staggering consequences for young workers (William T. Grant Foundation 1988). In fact, Reich (1992:39) asserts that "the proportion of 18-year olds, working full-time and making low wages soared from 22.9 percent in 1979 to 43.4 percent in 1990."

One of the more compelling works giving focus to the hardships experienced by non-college bound youth is by Hamilton (1990). In this volume, the author offers a number of key assertions regarding the status of non-college bound persons (see Hamilton 1990:1-37). They include the following:

- Many high school graduates seeking entrance into the labor force experience a period of "floundering" which lasts until they are in their early to mid-twenties. During this difficult period of time, non-college youth find themselves suffering limited employment options, poor wages, less than full-time work, and few opportunities for advancement. And when employed, these individuals tend to work for only short-periods of time, moving from one job to the next.

- The transition of non-college bound youth from school to career develops along three distinct phases. The first phase is the part-time and summer jobs that youth capture during their high school years. Once high school is completed, these individuals enter into a second phase in which work becomes the major focus of one's energies. Unfortunately, the type of jobs available to these individuals may be the same, or closely tied, to those which they were engaged in while in high school. The third and final phase is the "career" stage, one in which non-college youth realize some success in securing jobs that require a certain level of knowledge and skills and which provide reasonable compensation for these activities. This last stage is entered when non-college bound youth reach their early to mid-twenties.

Labor Market Placement of Non-College Bound Youth

Hamilton's (1990) contention of limited experiences for non-college bound youth during their early work careers is shaped by the existence of dual labor markets. The dual labor market perspective contends that jobs are located in either primary or secondary labor markets (Doeringer and Piore 1971; Piore 1969). Key attributes associated with primary sector jobs are that employment tends to be stable and secure, wages are high, the working conditions are good, workers are punctual and dependable, investment in employee training is extensive, and worker turnover is low. While primary sector jobs generally have entry level requirements, once hired, the existence of internal labor markets accords workers the opportunity for upward mobility (Althauser and Kalleberg 1981; Beaulieu and Mulkey 1995; Doeringer and Piore 1971).

Secondary labor market jobs, on the other hand, offer workers few if any opportunities for advancement given that internal labor markets are rarely present. Further, employment is unstable and jobs insecure. Requirements for gaining entry into these positions are virtually non-existent. Both wages paid and work conditions tend to be poor. Few, if any, job training programs are extended to workers, so employee commitment to the job is low. As a consequence, worker turnover, absenteeism, and tardiness are extensive (Althauser and Kalleberg 1981; Beaulieu and Mulkey 1995).

Dual labor market advocates (Gordon 1972; Rumberger 1981) note that mobility between primary and secondary labor markets is generally difficult. Because of limited training, irregular work histories, and inadequate job experiences, secondary sector workers often lack the credentials to gain entrance into the primary labor market-based jobs. Certainly, some do succeed in capturing primary labor market sector jobs over time. But, many do not and the reasons go beyond their limited educational credentials.

Gender, race/ethnicity, and residential location, for example, all give shape to the labor market experiences of individuals. Women and racial /ethnic minorities have less success in gaining access to primary occupations than do men and whites with similar human capital endowments (England 1992; Glasgow et al 1993; Marshall and Briggs 1989). Furthermore, spatial location can give shape to the type of labor markets available to workers. Killian and Beaulieu (1995: 25) suggest that while urban labor markets often attract employers who are seeking workers with strong analytical, creative, and organizational skills, rural labor markets seem to interest employers seeking cheap labor for the performance of routine, simplified activities. As a result, nonmetro workers are more likely than persons living in metro areas to be employed in secondary labor market occupations given that few primary labor market sector jobs are present in nonmetro areas (Falk and Lyson 1993; Jensen 1994).

Data and Methods

The data source for this study is the national longitudinal survey titled *High School and Beyond* (HS&B) (U.S. Department of Education 1982, 1984, 1986, 1992). The HS&B survey, which began in 1980, was a stratified national probability sample of sophomore students enrolled in approximately 1,100 public and private schools across the United States. The questionnaire, administered on-site at the high schools, examined individual and family background characteristics, high school and work experiences, and students' future plans. Follow-up studies were conducted in 1982, 1984, 1986 and 1992. A variety of data collection techniques were employed over the 1982-92 period of time. The 1982 methodology mainly involved group administration of instruments both on and off the school campus. The 1984 and 1986 surveys were completed using a combina-

tion of mail and telephone techniques, while the 1992 study was undertaken employing computer assisted telephone interviews (CATI). Nearly 15,000 students taking part in the 1980 baseline study were also participants in the four subsequent waves. The follow-up studies explored a variety of topics, including the students' occupational and educational aspirations, post-secondary school and work experiences, assessments of educational outcomes, job earnings, and unemployment history (Sebring et al 1987; Zahs et al 1995).

As a result of information collected over the 1982-1992 period of time, the status of participants' post-secondary activities was determined. For purposes of this study, individuals who had no participation in any type of post-secondary education over the course of a ten-year period (June 1992 - Spring of 1992), and who were residents of the U.S. Census South, were classified as the region's non-college bound students. A total of 1,195 southerners from the HS&B sophomore cohort were so labeled.

Measurement of Variables

One of the key aspects of this study involved assessing the labor force experiences of non-college bound youth. In the 1984 HS&B wave, respondents were asked to profile up to four jobs which they may have held between the time they graduated from high school and February 1984. If a person had more than four jobs, that individual was asked to report on the first three jobs and then the most recent or current job. The 1986 wave asked respondents to profile up to four jobs as well. They were to start with their current or most recent jobs and work backwards in time to March 1984. If they were gainfully employed in more than four jobs, they were to enter information on the most recent three jobs and then report on the job held in March 1984 or the first job held thereafter. For the 1992 study, our interest centered on the job that the respondent was engaged in at the time of the survey.

All occupations reported by non-college bound HS&B respondents in the 1982-92 waves were subsequently classified into one of four categories: (1) upper tier, primary labor market; (2) lower tier, primary labor sector; (3) upper tier, secondary labor market; and (4) lower tier, secondary labor sector. Conceptually, the placement of jobs into various tiers is based on factors such as level of pay, job

status, advancement opportunities, internalized codes of behavior, educational requirements, and level of creativity and autonomy allowed in performing work jobs tasks (Lorence 1987:25). Upper tier primary labor market jobs prove best on these factors, while lower tier secondary labor market jobs rate worst on these features. The detailed occupational labor market typologies developed by Lorence (1987) offered guidance on the tiers and sectors that jobs held by our HS&B participants should be classified into.

As noted earlier, individual characteristics, such as sex, race and ethnicity are examined given that research indicates that these factors may serve to facilitate or impede one's access to primary labor markets. Respondents' place of residence (i.e., rural, small city, suburban, and urban) is considered given that the nature of labor markets can be influenced by their spatial location. For purposes of this article: "rural" encompasses rural or farming communities; "small city" relates to small towns or cities with fewer than 50,000 people; "urban" represents populations with over 50,000 residents; and "suburban" reflects suburban areas of cities of 50,000 or more residents. While this residential classification differs from that commonly employed by the U.S. Census, it is the only one that was used in the HS&B study.[1]

Findings

Labor Force Experiences of Non-College Bound Youth: The Early Years

The first question we wished to address is: Who are the non-college bound youth in the South and how do their characteristics compare those of their classmates who ended up completing a baccalaureate degree or better? Results reported in Table 1 offer some clue of the key demographic characteristics of these two groups over the course of the 1982-92 time period. The data reveal that a slightly higher number of males than females were classified as non-college bound (approximately 55 percent vs. 45 percent, respectively), while females were more likely to be college-educated (52.4 percent).

[1]We were unable to examine labor force experiences on the basis of place of residence in 1992 since the source of our data, the High School and Beyond survey, did not seek such information as part of this wave of the study.

Nearly 57 percent of non-college bound persons were white, followed by blacks (23.3 percent) and Hispanics (20.1 percent).[2] Whites represented the largest segment of the college-educated southerners involved in the HS&B study (65.5 percent).

Of particular interest are the family characteristics of the non-college bound. Approximately 48 percent of fathers, and nearly 45 percent of mothers of non-college bound youth completed less than a high school education. Another sizable proportion were high school education only graduates (30.3 percent for fathers and 36.7 percent for mothers). Few of the parents achieved a baccalaureate degree or more. On the other hand, over half of the college-educated persons in our study had a father with a two-year college degree or better, while nearly 37 percent of their mothers had this level of education. As for family size, a large segment of the South's non-college bound people had four or more family siblings (44.9 percent), while the figure for college-educated youth was 20 percentage points lower (24 percent).

As for the residential location of these individuals, over 29 percent of non-college bound youth in the South lived in a rural or farm area, while 12.2 percent of their college educated cohort lived in this type of residential area. A large share of non-college bound persons also tended to live in suburban areas of a city (36.3 percent) and in urban localities (30.5 percent). For those who graduated from a four-year college, most had lived in an urban city at the time of their graduation from high school in 1982 (37.8 percent).

These data provide an important context for discerning the characteristics of the home environment that might create significant barriers to seeking post-secondary education. Many non-college bound youth tend to come from larger families with low socioeconomic status (SES). Both of these factors have proven to have negative impacts on the academic aspirations of children (Smith, Beaulieu and Seraphine 1995).

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[2]These percentages are closely aligned with the racial and ethnic composition of all 1982 high school graduates in the South who were part of the HS&B study.

Table 1. Comparison of the Demographic Profiles of Non-College Bound and College-Educated Youth in the South, 1992

Characteristic	Non-College Bound		Baccalaureate Degree +	
	Number	Percent	Number	Percent
Gender				
Male	658	54.9	437	47.6
Female	540	45.1	482	52.4
Race/Ethnicity				
White	650	56.7	572	65.5
Hispanic	230	20.1	174	19.9
Black	267	23.3	127	14.5
Father's Education[a]				
Less than high school	436	48.4	109	13.1
H.S. graduate	273	30.3	146	17.6
Less than 2 yrs. voc./tech.	27	3.0	20	2.4
Two + yrs. voc./tech.	42	4.7	65	7.8
Less than 2 yrs. college	30	4.2	59	7.1
Two + yrs. of college	30	3.3	67	8.1
Finished college or more	49	5.4	363	43.7

Mother's Education[a]				
Less than high school	435	44.9	107	12.6
H.S. graduate	355	36.7	251	29.6
Less than 2 yrs. voc./tech.	36	3.7	43	5.1
Two + yrs. voc./tech.	38	3.9	57	6.7
Less than 2 yrs. college	30	3.1	77	9.1
Two + yrs. of college	32	3.3	78	9.2
Finished college or more	40	4.1	233	27.5
Number of Siblings				
None	25	2.7	49	6.0
One	141	15.1	206	25.4
Two	167	17.9	230	28.3
Three	183	19.6	132	16.3
Four	419	44.9	195	24.0
Place of Residence in 1982				
Rural/Farm	272	29.2	97	12.2
Small City/Town	254	27.2	185	23.2
City Suburb	122	36.3	214	26.8
Urban City	285	30.5	302	37.8

[a]A substantial number of non-college bound youth were unable to report the educational levels of their parents. For example, 16.1 percent of the students stated they "did not know" the level of education of their father, and 11 percent responded in this way with regard to their mother's education. The education attainment figures reported in this table represent the responses of students who stated they knew the education levels of their parents.

Floundering Period: Fact or Fiction?

As noted earlier, Hamilton (1990) contends that the early post-high school job experiences of non-college bound persons can be characterized as a period of "floundering" — one that involves a frequent shifting from one job to another. He further notes that as individuals approach their early to mid-twenties in age, their rapid turnover in jobs tends to subside. We tested Hamilton's arguments empirically by examining the number of jobs that non-college bound youth in the South held between 1982 and 1986. The results of our analysis are presented in Table 2.

Nearly 41 percent of non-college bound youth in the region held one job between 1982 and 1984, while close to 13 percent held no job at all. About 24 percent had held two jobs over this period of time, while a nearly equal proportion had been employed in three or more jobs over the two-year course of time. During the 1984 to 1986 period, the number of non-college bound youth employed in a single job rose to 46 percent, as did the percentage engaged in two different jobs (26.8 percent). However, employment in three or more jobs declined significantly (over 7 percentage points). The proportion of non-college bound youth who held no job during the 1984-86 period was nearly identical to that uncovered from 1982 to 1984 (see Table 2).

Table 2. Number of Jobs Held by Non-College Bound Southern Youth, 1982-84 and 1984-86

Number of Jobs Held	1982-84	1984-86
None	13.1%	12.1%
One	40.8	46.0
Two	23.5	26.8
Three	13.1	10.8
Four or more	9.5	4.4
Mean Jobs Held [a]	1.9	1.7
(n)	1,117	1,095

[a]The mean represents the average number of jobs held by those non-college bound youth who were employed during the 1982-84 and 1984-86 time periods. Thus, persons who indicated that they held no jobs during these two spans of time were excluded from the calculation of the means.

In sum, the number of jobs held during the 1982-84 and 1984-86 time periods by non-college bound youth who were actively engaged in the workforce averaged 1.9 and 1.7 jobs, respectively. These results suggest that the anticipated movement of non-college bound youth from one job to another during the early stages of their work experiences did not appear to be as pervasive as that suggested by Hamilton (1990). At the same time, it is clear that as their early labor force experiences progressed, stability in employment did take place, with more workers moving less frequently to other jobs during the 1984-86 period than was the case between 1982-84.

Left uncertain is whether job stability occurred among all workers over time. That is, were those who held a number of jobs between 1982-84 inclined to shift jobs less frequently between 1984-86? Furthermore, what was the nature of job changes between 1984-86 among participants who experienced few job changes during the 1982-84 time period? The information needed to respond to these questions is presented in Table 3.

Over one-half of the persons who held no job during the 1982-84 period continued this status from 1984-86. However, approximately one-third captured one job over the 1984-86 period. For those who showed great stability by remaining employed in only one job for the 1982-84 period, nearly 52 percent continued holding only one job from 1984-86.. A good percentage of individuals who changed jobs twice during the earlier two-year time span tended to settle into one job over the 1984-86 period (47.1 percent), but 47.5 percent changed jobs two or more times over the latter two-year span. As for those

Table 3. Changes in Job Movement Among Non-College Bound Southern Youth, 1982-84 and 1984-86

Number of Jobs Held, 1982-84	Number of Jobs Held, 1984-86			
	None	One	Two	Three or more
None	50.4	33.1	11.3	5.3
One	10.4	51.9	25.0	12.7
Two	5.4	47.1	32.6	14.9
Three or more	2.1	41.9	33.3	22.9

Pearson's r = .316, significant at the .0001 level

who floundered the most during the earlier two-year period (i.e., held three or more jobs), over one in five shifted jobs just as often between 1984 and 1986, while one-third changed jobs twice during this same period of time. At the same time, approximately 42 percent remain tied to only one job over the latter two-year time period.

In summary, regardless of the number of jobs a person held over the 1982-84 period, a significant percentage of study participants held only a single job between 1984 and 1986. At the same time, more than one in two non-college bound southerners who held three or more jobs between 1982-84 changed jobs two or more times over the 1984-86 time. As such, our findings tend to offer only modest support for Hamilton's (1990) assertion that non-college bound youth tend to settle into a career path as they approach their early twenties.

Primary and Secondary Labor Market Experiences of Non-College Bound Youth

The next issue to be examined is the nature of the jobs that non-college bound youth were able to secure during the four-year period after high school (i.e., the early labor force years). Specifically, were non-college bound youth able to gain access to primary sector jobs during the early stages of their post-high school work experiences? Or, were these workers principally confined to the secondary labor market, as Hamilton (1990) would contend? Moreover, to what extent were non-college bound youth successful in their efforts to secure jobs in the primary labor market sector over time? Employing the typology developed by Lorence (1987), we were able to classify jobs of our study participants into their appropriate market segment. Results of this classification effort are reported in Table 4.

As the top portion of Table 4 reveals, the lion's share of first jobs held by non-college bound youth after graduating from high school were located in the secondary labor market, with over 54 percent situated in the lower tier of that market. Over the next four years, most non-college bound southerners remained immersed in secondary labor market sector jobs, although some clear movement from the lower to upper tiers of this sector did occur. Very few individuals were ever able to gain access to primary labor sector jobs over the 1982-86 time period.

Table 4. Classification of Early Job Experiences of Non-College Bound Southern Youth, by Labor Market Sectors, 1982 through 1986

JOBS HELD	Primary		Secondary		(n)
	Upper	Lower	Upper	Lower	
First Post-H.S. Job in 1982	1.0%	5.2%	39.6%	54.2%	915
Current/Most Recent Job in 1984	1.6	5.1	45.2	48.0	920
Current/Most Recent Job in 1986	1.2	8.8	50.2	39.8	942
RACE					
First Post-H.S. Job in 1982					
White	1.6	7.9	40.5	50.1	509
Black	0.5	--	27.5	72.0	189
Hispanic	--	2.9	48.9	48.3	174
Current/Most Recent Job in 1984					
White	2.0	7.5	46.1	44.5	510
Black	--	0.5	33.9	65.6	189
Hispanic	2.2	4.5	54.5	38.8	178
Current/Most Recent Job in 1986					
White	1.7	10.4	50.8	37.1	528
Black	1.0	6.1	42.9	50.0	198
Hispanic	--	6.1	56.4	37.6	181
GENDER					
First Post-H.S. Job in 1982					
Male	0.4	3.0	48.0	48.7	565
Female	2.0	8.9	26.0	63.1	350

Table 4. Continued

JOBS HELD	Primary		Secondary		(n)
	Upper	Lower	Upper	Lower	
Current/Most Recent Job in 1984					
Male	1.1%	2.5%	55.9%	40.5%	560
Female	2.5	9.2	28.6	59.7	360
Current/Most Recent Job in 1986					
Male	0.9	5.5	61.1	32.6	563
Female	1.6	13.7	34.0	50.7	379
PLACE OF RESIDENCE					
First Post-H.S. Job					
Rural/Farm	1.9	5.3	39.4	53.4	208
Small City/Town	1.0	3.1	38.3	57.7	196
City Suburb	1.1	8.4	31.6	58.9	95
Urban City	0.5	6.2	40.8	52.6	211
Current/Most Recent Job in 1984					
Rural/Farm	1.9	3.8	46.0	48.3	211
Small City/Town	0.8	3.8	44.8	50.6	239
City Suburb	4.0	6.0	45.0	45.0	100
Urban City	1.7	8.3	41.3	48.6	288
Current/Most Recent Job in 1986					
Rural/Farm	0.4	6.6	49.3	43.6	227
Small City/Town	1.1	10.8	47.8	40.3	278
City Suburb	2.9	11.8	52.9	32.4	102
Urban City	1.3	8.3	49.0	41.3	300

How about the pattern for racial and ethnic minorities? As noted earlier, the argument has been advanced that females and minorities are often denied access to jobs located in the primary labor market

sector. Instead, most tend to find "bad" jobs situated in the secondary segment of the labor market. To assess whether this was in fact the case for non-college bound youth, we examined the first job that our study participants held after high school, and at the time of the 1984 and 1986 HS&B follow-up surveys, by race and gender.[3]

Information shown in the middle panel of Table 4 reveals that irrespective of race or ethnic background, most non-college bound youth in the South secured jobs in the lower tier of the secondary labor markets in 1982. But, the proportion of blacks employed in the bottom tier of the secondary labor market (72 percent) was much higher than that found for whites (50.1 percent) and Hispanics (48.3 percent). Furthermore, whites appeared more successful in capturing jobs located in primary sector markets than were blacks and Hispanics. By 1984, the distribution of jobs by race/ethnicity showed even greater variation. The bulk of jobs held by African-Americans remained in the lower sector of the secondary labor market (65.6 percent). But, a higher percentage of whites and Hispanics were employed in upper tier secondary labor market jobs. Much like 1982, however, few whites, blacks or Hispanics were able to move into primary labor market sector positions.

It is evident that many racial and ethnic groups were able to move into higher labor sector jobs by 1986. Some escaped from the lower tier to the upper tier of the secondary labor market. However, over half of the blacks still found themselves employed in lower tier secondary labor market jobs — a figure that was much higher than that found for whites (37.1 percent) and Hispanics (37.6 percent). All racial/ethnic groups made modest gains in penetrating the primary labor market sector by 1986, although the figure never surpassed the 12.1 percent mark for any of these groupings.

As for gender, a large share of males and females had a first job after high school that fell into the lower tier of the secondary labor market. However, the percentage was considerably higher among females than males (63.1 percent versus 48.7 percent). Males were more likely than females to be employed in upper tier secondary la-

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[3]The decision to limit our focus to the first job after high school and the current or most recent ones held at the time of the 1984 and 1986 studies was based on the fact that these jobs provided the largest number of cases available for examining this research question.

bor market jobs soon after high school (48 percent versus 26 percent). But, nearly 11 percent of females secured jobs in the primary labor market sector, a rate that was three times higher than that of males.

Over the course of the next four years, shifts in the location of one's job in the labor market could be clearly observed. The percentage of males whose jobs were located in the upper tier of the secondary labor market jumped from 48 percent in 1982 to 61.1 percent in 1986. For females, such gains were far more modest, increasing from 26 percent to 34 percent over the four-year span. Males continued to be less successful than females in finding primary labor sector jobs during the four-year period.

Collectively, these results suggest that non-college bound youth did not start off in a near equal playing field in terms of their access to labor markets immediately after high school. Both blacks and females were far more likely to secure jobs in 1982 that placed them in the lower tier of the secondary labor market. Even by 1986, whites, Hispanics and men showed greater success in escaping from lower to upper tier secondary labor markets than was the case for their counterparts. As a general rule, however, entry into the primary labor market proved to be a difficult task for all non-college bound southerners, regardless of race, ethnicity, or gender.

Labor Markets and Place of Residence

Dual labor market analysts note that urban communities are better able to capture primary labor sector jobs vis-à-vis their rural counterparts. Decisions made by management tend to relegate the lower-skilled, routine production jobs to rural areas, while the more-skilled professional, managerial, and technical jobs seemed to be placed in urban locales (Killian and Beaulieu 1995). A similar pattern is found among the producer service industries. Porterfield and Killian (1994), for example, examined the rate at which producer services were becoming either more concentrated in metropolitan areas or decentralized, as evidenced by their movement to the rural periphery. They found that those services that were becoming decentralized tended to offer low wages and part-time employment, while those becoming more centralized in urban areas consisted of higher-status, well-paying jobs. What these trends suggest is that workers living in

rural areas are likely to be less able to capture jobs in the primary sector given that rural areas are dominated by secondary labor sector employment opportunities.

The bottom panel of Table 4 cross-classifies the labor market sector of non-college bound youth by their place of residence during the time of their first job after high school, and the job they currently held at the time of the 1984 and 1986 follow-up studies. In 1982, the largest share of persons employed in lower tier secondary labor markets were residents of small cities/towns (57.7 percent) and suburban areas of urban cities (58.9 percent). By 1986, however, the picture underwent some modest changes. The group of non-college bound youth that tended to remain entrenched in secondary labor market sector jobs were those living in rural/farm areas (43.6 percent). Suburban non-college bound youth, on the other hand, realized the most appreciable gains in labor market sector placement over the 1982 to 1986 period.

In general, primary sector employment was not extensive among any residential group, but did show growth among non-college bound youth living in small cities or towns (from 4.1 percent in 1982 to 11.9 percent in 1986). While not gaining an appreciable ground over the four-year period, suburban residents in our study were the most likely to be employed in primary labor market sector jobs by 1986 (14.7 percent).

Labor Market Shifts During the Early Years, 1982-86

The data presented up to this point offer an understanding of the aggregate shifts that have occurred in the labor force experiences of non-college youth in the South during the early phases of their employment history. As important as these data are, they fail to reveal the labor sector dynamics that non-college bound individuals may have experienced over the four-year time span. Table 5 is designed to shed some light on this important issue.

Overall, Table 5 reveals that nearly 61 percent of the region's non-college bound youth remained immersed in the same labor market sector tier during the entire 1982-86 time period. Nearly 10 percent experienced a 1-tier decline in their labor market sector position, while 24.3 percent realized a 1-tier improvement. Less than 4 per-

cent were able to experience a 2 + tiers improvement in their labor market position.

When examined by race and ethnicity, one discovers that blacks and Hispanics were the least likely to experience any labor market changes (63.9 percent and 63.3 percent, respectively). However, blacks showed the highest rate of positive change in labor market tier position with over 30 percent moving up one or more tiers. Whites lead all other groups in terms of dropping down one or more tiers over the four-year time span with 13.2 percent losing ground.[4]

Table 5. Shifts in Labor Market Sector Tiers by Non-College Bound Youth in the South, 1982-86

Variable	Extent of Tier Changes				
	Declined 2+	Declined 1	No Change	Improved 1	Improved 2+
Overall	1.7%	9.8%	60.7%	24.3%	3.5%
Race					
White	2.9	10.3	58.7	24.0	4.0
Black	--	5.7	63.9	25.9	4.4
Hispanic	--	11.3	63.6	23.8	1.3
Gender					
Male	0.8	10.1	60.4	26.6	2.2
Female	3.2	9.2	61.3	20.2	6.1
Place of Residence					
Rural/Farm	3.0	9.7	61.7	22.4	3.1
Small City or Town	0.9	12.1	55.4	28.1	3.6
Suburb	1.2	5.8	61.6	27.9	3.5
Urban City	1.6	9.5	63.9	20.6	4.4

[4]The reason why African-Americans were so successful in realizing positive changes in their labor market tier was due to the fact that most were initially located in the lowest tier of the secondary labor market. Of those occupying jobs in the lowest tier in 1982, nearly 40 percent moved up one or more tiers by 1986. On the other hand, a sizable percentage of whites who held primary labor market sector jobs in 1982 experienced a 1-2 tiers decline by 1986. Detailed tables describing these shifts are available from the senior author.

Some modest labor market shifts were found by place of residence. Nearly 62 percent of non-college bound rural/farm youth in the South experienced no labor market tier movement between 1982-86. The greatest positive changes occurred among those living in the region's small cities/towns and suburban areas with nearly 32 percent of the former, and 31.4 percent of the latter, improving by one or more labor market tiers between 1982-86. The smallest improvement was found among rural/farm residents (25.5 percent) and those living in urban areas (25 percent). On the other side of the coin, the residential areas where the non-college bound HS&B participants from the South were most likely to lose ground were in small towns/cities (13 percent) and rural/farm areas (12.7 percent).[5]

Non-College Bound Youth a Decade Later

It is a well-accepted fact that the education credentials and skill levels that persons bring to the workplace influence their capacity to perform work-related tasks and to adapt to new productive technologies. Furthermore, better-educated persons have a capacity to take on new tasks, or to adjust to changes in old tasks (U.S. Department of Education 1997). These factors may prove particularly important in the context of today's economy. For one, if the *Workforce 2020* report is correct, jobs now being created are demanding better-skilled, more highly-educated workers and as such, those with limited education will find it more difficult to secure decent paying jobs (Judy and

[5]We undertook a separate analysis (not shown) to determine if persons who moved to a different place of residence over the course of the 1982-86 period did better than those who stayed in the same size of residence. What we determined was that those who remained in a rural/farm area were less likely than those who left to have experienced a 1-2 tiers improvement in their labor market sector location (24.3 percent vs. 36.8 percent). Small city/town leavers did no better than small town stayers in their labor location over the four-year period of time. Suburban leavers tended to suffer more erosion in their labor market location (with nearly 16 percent dropping 1-2 tiers between 1982-86) than did suburban stayers (where 10.3 percent fell 1-2 tiers). Urban leavers did no better or no worse than urban non-college bound southerners who continued to live in an urban area during four years.

D'Amico 1997). At the same time, an observation has been made that a content shift is taking place in the skill requirements associated with many current jobs. As a result, jobs once filled by workers with limited skills are now requiring individuals with more complex, technical and cognitive-oriented skills (Killian and Beaulieu 1995; McGranahan and Ghelfi 1998). This type of skills-upgrading is necessary in order for firms to remain competitive in today's global economy. As such, those lacking a good education are more subject to periods of unemployment. In this section of our article, we wish to explore how our non-college bound southerners have fared in the labor market some ten years after graduating from high school. While we noted that many employers are seeking persons with post-high school education, and that current jobs may be shifting to higher-skill requirements, the question is whether non-college bound persons have made any substantive progress in securing jobs in higher labor market sector tiers over time in light of these higher human capital requirements. How have their labor market experiences compared to those of their high school classmates who completed a bachelor's degree or higher? A response to this question offers a stronger basis by which to assess the plight of non-college bound persons in the work force over the long-term.

Table 6 presents information on the labor market sector classification of jobs held by non-college bound southerners in 1992. Even after ten years of experience in the labor force, nearly 85 percent of these individuals remained locked into secondary labor market sector positions. Some 15.2 percent were successful in penetrating the primary labor market, particularly the lower tier of this market sector. Generally speaking, Hispanics had the greatest success in securing employment in the primary labor market sector, followed by whites. Blacks had greater difficulty escaping the lowest rung of the secondary labor market. In fact, a larger share of blacks were in the lower tier secondary labor market jobs in 1992 than was the case in 1986 (56 percent vs. 50 percent). The picture proved very similar for men. In 1986, about 33 percent of males were employed in the lowest tier of the secondary labor market in the South (see Table 4). By 1992, this had accelerated to 44.8 percent.

In contrast, the classmates of non-college bound persons who subsequently attended college and completed a baccalaureate degree or more tended to be employed in jobs that placed them in the

Table 6. Classification of 1992 Job Held by Non-College Bound and College Educated Cohorts Who Graduated from High School in 1982, by Labor Market Sectors

Variables	Primary		Secondary			Primary		Secondary		
	Upper	Lower	Upper	Lower	(n)	Upper	Lower	Upper	Lower	(n)
	NON-COLLEGE BOUND COHORT					COLLEGE EDUCATED COHORT				
Job in 1992	1.8%	13.4%	42.1%	42.7%	919	29.2%	31.5%	34.5%	4.8%	812
RACE										
White	1.8	14.7	45.9	37.6	503	29.5	33.2	32.4	4.9	512
Black	2.6	7.3	34.0	56.0	191	24.5	26.4	40.0	9.1	110
Hispanic	1.6	16.2	38.4	43.8	185	28.5	32.5	37.1	2.0	151
GENDER										
Male	0.9	14.4	39.9	44.8	569	31.0	39.2	25.1	4.8	378
Female	3.4	11.6	45.7	39.2	352	27.6	24.8	42.5	5.1	435

primary labor sector. About 29 percent had upper tier, primary labor sector jobs, while another 31.5 percent were in the lower tier of this labor market sector. Less than 5 percent found themselves employed in the lowest tier of the secondary labor market. White and Hispanic college-educated southerners were slightly more successful than blacks in securing primary labor market sector positions. On the other hand, a sizable percentage of African-Americans with a baccalaureate degree or better had jobs in secondary labor markets (40 percent in the upper tier and 9.1 percent in the lower tier of this sector). With regard to gender, men were far more successful in gaining primary labor market sector jobs than were females.

Despite the variations uncovered across race/ethnicity and gender among the college-educated cohort, this group's labor market sector placement was significantly better in 1992 than was the case for their non-college bound classmates. The percentage engaged in primary labor market sector positions was about four times higher in the college-educated than was the case among non-college bound southerners.

To bring further understanding to the dynamics of labor markets shifts among non-college bound and college-educated persons in the South, we examined the extent to which the two groups (the non-college bound group and its college-educated classmates) realized any upward movement in labor market tiers over the course of the 1986-92 period.[6] The results of our analysis are presented in Table 7. Over the six-year period, about one in five non-college bound southerners realized a one-tier improvement in their labor market positioning, while another 5 percent actually experienced a 2-tier improvement. Nearly half of the non-college bound sample remain entrenched in the same labor market sector, and over 26 percent actually lost ground, dropping one or more tiers.

While the 1992 study failed to include any residential identifier (thus, not allowing us to examine changes by place of residence), information on race/ethnicity and gender was available. Most white,

[6]We used this as the time period in which to do comparisons because this was the period that the 1992 HS&B follow-up study was particularly interested in examining. Furthermore, for those who did attend college after their 1982 high school graduation, most would have been well on their way to completing a baccalaureate degree by 1986.

Table 7. Shifts in Labor Market Sector Tiers by Non-College Bound and College Educated Southerners, 1986-92

	NON-COLLEGE BOUND COHORT					COLLEGE EDUCATED COHORT				
Variables	Declined 2+	Declined 1	No Change	Improved 1	Improved 2+	Declined 2+	Declined 1	No Change	Improved 1	Improved 2+
Overall	2.4%	24.1%	47.1%	21.9%	4.5%	3.5%	13.1%	25.1%	32.1%	26.2%
Race										
White	2.7	23.0	47.1	22.5	4.6	2.9	13.1	22.4	33.1	28.5
Black	2.6	26.6	48.7	18.8	3.2	6.7	13.3	30.0	25.6	24.5
Hispanic	2.0	24.2	45.6	22.1	6.0	4.4	12.6	29.6	32.6	20.8
Gender										
Male	1.8	25.7	49.9	19.1	3.5	0.6	8.6	24.6	32.8	33.4
Female	3.6	21.6	42.2	26.6	6.0	6.2	17.2	25.7	31.4	19.6

black, and Hispanic non-college bound persons saw no change in their employment sector tier. In cases where improvements did take place, they tended to occur more among Hispanics, followed by whites. Declines occurred among all race/ethnic groups, but most notably among African-Americans (29.2 percent dropped one or more tiers between 1986 and 1992). In general, a greater number of females improved their labor market tier placement than was the case for males. Nearly 33 percent of non-college bound females realized a 1 + tier improvement in the labor market, versus 22.6 percent for males.

Unlike their non-college bound classmates, college-educated southerners fared much better in the labor market over the six year period. Over 32 percent moved up one tier, while 26.2 percent experienced a two-tier improvement. A similar pattern was uncovered by race/ethnicity, although whites tended to do better than blacks and Hispanics in terms of upward movement within labor market tiers. Nearly two-thirds of all college-educated men in the South improved by one or more tiers over the six-year span of time. For women, the percentage realizing upward mobility in their labor market position stood at 51 percent.

It is critical that these results be understood in the context of macroeconomic forces that were at play over the course of the 1980s and early 1990s. As a result of serious problems in the agricultural community during the early 1980s, as well as the downturn in the manufacturing sector, many rural areas suffered from higher rates of unemployment, underemployment, and poverty relative to their urban counterparts (Greenberg and Teixeira 1998). These difficulties continued through the recession of 1990-91 (Ghelfi 1993). At the same time, reports noted that these economic difficulties were not strictly confined to rural areas, but were pervasive across much of working America (Economic Policy Institute 1996; Mishel 1995). A key symptom of these difficulties was the continued decline in family income during the 1980s and 1990s. The underlying factors associated with wage deterioration included the loss of higher-wage manufacturing jobs, the simultaneous expansion of lower-wage service sector jobs, and the acceleration in part-time and temporary employment (Economic Policy Institute 1996). Hardest hit were those with a high school education or less, although college graduates were impacted as well. These trends offer some basis for understanding why

so many non-college bound southerners suffered declines in their market tier location over the 1986-92 period (see Table 7), and why declines of 9 to 23 percent were even found among various college-educated sub-populations.

Summary and Conclusions

This paper has attempted to take a hard look at the status of non-college bound southern youth who have sought to enter the work force after high school. While some have noted that the plight of non-college bound youth is filled with many hardships and challenges (e.g., Hamilton 1990; William T. Grant Foundation 1988), limited empirical analysis has been undertaken of how non-college bound youth fare in the work force over time. Our study has been designed to shed additional light on this important topic.

Using the national High School and Beyond study data, our paper has examined and put to the test some of the assertions articulated by Hamilton (1990) and others with regard to this population and its chances of securing jobs in either primary or secondary labor markets. The results uncovered in this article suggest that: (1) the notion that non-college bound individuals go through a period of "floundering" during their early labor force experiences received limited support in the South; (2) non-college bound southerners did tend to be restricted to jobs located in the secondary labor market during their early work careers; (3) non-college bound persons who were immersed in secondary labor market jobs early in their work careers experienced limited mobility into primary labor market sector jobs over a ten-year period; (4) there is some evidence to suggest that men were more successful than women early in their work careers in moving from lower to upper tier secondary labor market jobs, but this was less likely to be the case by 1992; (5) blacks consistently had the highest percentage of any non-college bound racial/ethnic group with jobs in the lowest tier of the secondary labor markets while Hispanics were able to realize greater upward movement in their labor market tiers over a period of ten years; (6) non-college bound youth from rural/farm communities were no more disadvantaged in terms of their labor market sector placement than were non-college bound persons residing in other sized communities in the region when they first entered the workforce — however, over the course of the next four

years, young adults from rural/farm locales failed to keep pace with their counterparts living in larger communities in terms of moving up the labor market sector tiers; and (7) unlike their high school classmates who completed a baccalaureate degree or higher, non-college bound persons experienced great difficulty in improving their labor market position a decade after graduating from high school.

Our results suggest that serious challenges will continue to plague those individuals who enter the workforce with no post-secondary education. This is not to imply that jobs will not be available for these individuals. But, most will be situated in secondary labor markets and pay wages that are significantly below those paid to college-educated workers. Over time, the gap between the wages garnered by college-educated workers and those paid to non-college bound individuals will likely widen, particularly in a context of global competition and technology advances in the work place. Moreover, in times of economic uncertainty, non-college bound individuals will more likely to be victims of greater job instability.

No region will be impacted more, in our view, than the rural South. The rural South continues to outpace the rest of rural America in the proportion of high school graduates who are non-college bound. Furthermore, non-college bound persons living in rural areas are less inclined to move to an urban area for employment. As such, they are more likely to seek employment within local labor markets. Thus, it is incumbent upon rural communities to give serious consideration to strategies that are likely to facilitate a smoother transition from high school into local labor markets. While federal pronouncements regarding workforce preparation have been put forth, the reality is that much of the effort in making this smooth transition a reality will rest at the state and local levels given that education has been a much-guarded responsibility of local and state governmental entities.

A case in point is the new federal Workforce Investment Act, signed into law in 1998 (U.S. Department of Labor 1998). This legislation provides block grants to states for the purpose of designing a comprehensive workforce preparation and employment system. The real action, however, is to occur at the local level, through the creation of "Local Workforce Investment Boards." These boards — comprised of local businesses and other community leaders/citizens — are being charged with the responsibility of developing job train-

ing, education and employment services that address the labor needs of local labor markets. The bottom line is that any effort to deal with workforce issues as part of the Workforce Investment Act will have to be directed, in large part, by people at the local level, not by state or federal entities.

The Workforce Investment Act does contain specific language to address the needs of youth, aged 14-21 years of age (the age group under which non-college bound population would be covered). Unfortunately, the legislation requires that focus be given to youth who face one or more of the following barriers: school dropout; basic literacy deficiency; homeless, runaway, or foster child; pregnant or a parent; an offender; or in need of help completing an educational program or securing and holding a job (Beaulieu 1999). Since the bulk of non-college bound youth will not meet any of these conditions, most of their employment needs are likely to be left unmet under this new legislation.

As such, communities must take a serious look at strategies that can promote the effective transition of students from high school into local labor markets. To date, creative school-to-work (STW) programs have been implemented in various states, but the quality and accessibility of these programs has been unequal across the South. One of the most effective programs introduced in recent years has been the "Tech Prep" program (Parnell 1985). The only limitation of this program, however, is that it combines the last two years of the high school curricula with two years of post-secondary courses. Thus, it bypasses non-college bound students.

What is truly needed is a program that accords non-college bound students an opportunity to develop job skills during high school that are linked to the employment needs of local businesses and firms. The ingredients for doing so are (at a minimum) fourfold: (1) a school system that is committed to modifying its curriculum so that it encompasses academic course work, up-to-date vocational instruction, and work-readiness programs; (2) highly supportive local business, industry, and government sectors that are willing to offer work-based learning opportunities for non-college bound students; (3) a high school career counseling program that is attuned to the current and emerging needs of the local labor market and is able to offer guidance to non-college bound youth regarding local job opportunities; and (4) involved parents who can offer important support and

guidance relative to their children's career orientations (Ryan and Imel 1996; Way and Rossmann 1996).

The last factor should not be underplayed. When the socioeconomic characteristics of non-college bound youth are examined, one soon realizes that many of these individuals are embedded in families where parental education is limited and family size is large. As such, it is not uncommon for parental aspirations to be low with regard to their children's educational progress and for the quality and frequency of parent/child nurturing activities to be compromised because of the presence of many children in the home (Blake 1981). At the same time, it is commonplace for students to be influenced by their parents with regard to career paths. But, parents are often not aware of the nature and needs of the local labor market and as such, have limited knowledge to guide the decisions of their non-college bound children. Thus, if communities and schools are genuinely committed to shaping and implementing an effective school-to-work transition program, parents must be full partners in this effort. This process should include efforts to educate parents about job opportunities available or emerging in local labor markets and delineating the job apprenticeship/job readiness programs available locally to facilitate their children's transition into such jobs.

A related strategy is to focus on non-college bound persons who have already entered the work force. Because many of these individuals have tended to secure jobs in secondary labor markets, the opportunity to partake in formal or on-the-job training activities has been limited. Thus, some consideration should be given to shoring-up the training opportunities accorded these individuals either on or off the work site.

While post-secondary education is not desirable for some non-college bound persons, there are some who would pursue a post-secondary education if financial resources were available to them. Therefore, scholarships to students who are in greatest need of assistance should be explored by local communities and/or states. While past trends clearly show that many rural students who have completed a college education tend to locate more often in urban areas, providing scholarships that require students to return to their rural communities after completing college could serve as a major requirement for qualifying for such a scholarship. This would help ensure that a cadre of well-educated young adults would be present in the

community to assist in its long-term economic development activities. Of course, a critical companion strategy would be to ensure that decent jobs, that take full advantage of the human capital endowments of these young adults, are available for these individuals upon their return to their home community.

In sum, the challenges facing non-college bound persons, particularly in the rural South, are not insignificant. Given the increasing call for better-educated and skilled workers who can operate in a global marketplace, the difficulties facing the non-college bound is not likely to diminish. While state and federal agencies may play a part, it is clear that effective responses to enhancing the economic well-being of non-college bound students will rest largely with key local entities.

References

Althauser, R. P. and A. L. Kalleberg. 1981 "Firms, occupations, and the structure of labor markets: A conceptual analysis." Pp. 119-49 in *Sociological Perspectives on Labor Markets*, edited by Ivar Berg. New York: Academic Press.

Beaulieu, L. J. 1999. "Improving job opportunities for low-income people: The hope of the Workforce Investment Act of 1998." *Information Brief: A Special Series on Welfare Reform in the South.* Number 8 (July). Starkville, MS: Southern Rural Development Center.

Beaulieu, L. J. and D. Mulkey. 1995. "Human capital in rural America: A review of theoretical perspectives." Pp.3-21 in *Investing in People: The Human Capital Needs of Rural America*, edited by L. J. Beaulieu and D. Mulkey. Boulder, CO: Westview Press Rural Studies Series.

Beaulieu, L. J., G. D. Israel, and R. E. Cluck. 1998. "Non-college bound youth: Their background characteristics and labor force experiences. Presented at the Annual Meeting of the Southern Rural Sociological Association, February. Little Rock, AR

Blake, J. 1981. "Family size and the quality of children." *Demography* 18:421-42.

Doeringer, P. and M. Piore. 1971. *Internal Labor Markets and Manpower Analysis.* Lexington, MA: Heath.

Economic Policy Institute. 1996. *The State of Working America, 1996-97.* Washington, DC: Economic Policy Institute.

England, P. 1992. *Comparable Worth: Theories and Evidence.* New York: Aldine de Gruyter.

Falk, W. W. and T. A. Lyson. 1993. "Restructuring local labor markets: Lessons from the 1980s, an agenda for the 1990s." Pp.257-77 in *Inequalities in Labor Market Areas*, edited by J. Singelmann and F. A. Deseran. Boulder, CO: Westview Press.

Ghelfi, L. M. 1993. "Rural economic disadvantage." *Issues for the 1990s: Rural Economy.* Economic Research Service, Agriculture Information Bulletin Number 664-13 (April).

Gibbs, R. M. 1998. "College completion and return migration among rural youth." Pp. 61-80 in *Rural Education and Tràining in the New Economy*, edited by R. M. Gibbs, P. L. Swaim, and R. Teixeira. 1998. Ames, Iowa: Iowa State University Press.

Gibbs, R. M., P. L. Swaim, and R. Teixeira (eds.). 1998. *Rural Education and Training in the New Economy.* Ames, Iowa: Iowa State University Press.

Glasgow, N., K. Holden, D. McLaughlin, and G. Rowles. 1993. "The rural elderly and poverty." Pp.259-91 in *Persistent Poverty in Rural America.* Rural Sociological Society Task Force on Persistent Rural Poverty. Boulder, CO: Westview Press.

Gordon, D. M. 1972. *Theories of Poverty and Underemployment.* Lexington, MA: Heath.

Greenberg, E. J. and R.Teixeira. 1998. "Educational achievement in rural schools." Pp. 23-39 in *Rural Education and Training in the New Economy*, edited by R. M. Gibbs, P. L. Swaim, and R. Teixeira (eds.). 1998. Ames, Iowa: Iowa State University Press.

Hamilton, S. F. 1990. *Apprenticeship for Adulthood: Preparing Youth for the Future.* New York: The Free Press.

Jensen, L. 1994. "Employment hardship and rural minorities: Theory, research, and policy." *The Review of Black Political Economy* 22(4):125-44

Johnston, W. B. and A. E. Packer. 1987. *Workforce 2000: Work and Workers for the 21st Century.* Indianapolis, IN: Hudson Institute.

Katz, L. F. 1992. "Prepared statement of Lawrence F. Katz." *High-Wage Jobs in a Competitive Global Economy Hearing Before the Joint Economic Committee,* Congress of the United States (September 16):30-35.

Judy, R. W. and C. D'Amico. 1997. *Workforce 2020: Work and Workers in the 21st Century.* Indianapolis, IN: Hudson Institute.

Killian, M. S. and L. J. Beaulieu. 1995. "Current status of human capital in the rural U.S." Pp.23-46 in *Investing in People: The Human Capital Needs of Rural America*, edited by L. J. Beaulieu and D. Mulkey. Boulder, CO: Westview Press Rural Studies Series.

Lorence, J. 1987. "Gender differences in occupational labor market structure." *Work and Occupations* 14: 23-61.

Marshall, R. and V. M. Briggs, Jr. 1989. *Labor Economics: Theory, Institutions, and Public Policy* Homewood, IL: Richard D. Irwin, Inc.

McGranahan. D. A. and L. M. Ghelfi. 1998. "Current trends in the supply and demand for education in rural and urban areas." Pp. 131-171 in *Rural Education and Training in the New Economy*, edited by R. M. Gibbs, P. L. Swaim, and R. Teixeira. Ames, Iowa: Iowa State University Press.

Mishel, L. 1995. "Rising tides, sinking wages." *The American Prospect* 23(Fall):60-64.

Mishel, L. and R. A. Teixeira. 1991. *The Myth of the Coming Labor Shortage: Jobs, Skills, and Incomes of America's Workforce 2000.* Washington, DC: Economic Policy Institute.

Murdock, S. H., Md. Naxrul Hoque, T. Swenson, B. Pecotte and S.White. 2000. "The Increasing Diversity of the Rural South: Challenges and Opportunities in Future Population Growth." *The Rural South: Preparing for the Challenges of the 21st Century Series.* No. 6(April). Southern Rural Development Center.

Parnell, D. 1985. *The Neglected Majority.* Washington, DC: Community College Press.

Piore, M. J. 1969. "On the Job Training in a Dual Labor Market." Pp. 110-113 in *Public-Private Manpower Policies*, edited by A. R. Weber, F. H. Cassell and W. L. Ginsburg. Madison WS: Industrial Relations Research Association.

Porterfield, S. L. and M. S. Killian. 1994. "Producer services growing quickly in rural areas, but still concentrated in urban areas." *Rural Development Perspectives* 10(October):2-8.

Reich, R. B. 1992. "Prepared statement of Robert B. Reich." *High-Wage Jobs in a Competitive Global Economy Hearing Before the*

Joint Economic Committee, Congress of the United States (September 16):38-42.

Rumberger, R. W. 1981. *Overeducation in the US. Labor Market.* New York: Praeger Publishers.

Ryan, R. D. and S. Imel. 1996. "School-to-work transition: Genuine reform or the latest fad?" *The ERIC Review* 4(Spring):2-11.

Sebring, P., B. Campbell, M. Glusberg, B. Spencer, M. Singleton, and M. Turner. 1987. *High School and Beyond 1980 Senior Cohort Third Follow-Up (1986) Data File User's Manual.* (October). Center for Education Statistics, U.S. Department of Education.

Smith, M.H., L. J. Beaulieu, and A. Seraphine. 1995. "Social capital, place of residence, and college attendance." *Rural Sociology* 60(Fall):363-80.

Swaim, P. L. 1998. "Job training for rural workers." Pp. 97-113 in *Rural Education and Training in the New Economy*, edited by R. M. Gibbs, P. L. Swaim, and R. Teixeira. Ames, Iowa: Iowa State University Press.

Teixeira, R. and D. A. McGranahan. 1998. "Rural employer demand and worker skills." Pp. 115-129 in *Rural Education and Training in the New Economy*, edited by R. M. Gibbs, P.L. Swaim, and R. Teixeira. Ames, Iowa: Iowa State University Press.

U. S. Department of Education, National Center for Statistics. 1982, 1984, 1986, 1992. *High School and Beyond (HS&B) Study, Sophomore Cohort*, First Follow-Up Survey (1982), Second Follow-Up Survey (1984), Third Follow-up Survey (1986), and Fourth Follow-up Survey (1992).

____. 1997. *The Condition of Education, 1997.* NCES 97-388. Washington, DC: U. S. Government Printing Office (June).

U. S. Department of Labor. 1998. *Workforce Investment Act of 1998.* (September). Washington DC : Employment and Training Administration, U. S. Department of Labor.

U. S. General Accounting Office. 1991. *Transition from School to Work: Linking Education and Worksite Training.* Report to Congressional Requesters, GAO/HRD-9 1 - 1 Os (August).

Way, W. L. and M. M. Rossmann. 1996. "Family contributions to adolescent readiness for school-to-work transition." *Journal of Vocational Education Research* 21(2):5-36.

William T. Grant Foundation. 1988. *The Forgotten Half: Pathways to Success for America 's Youth and Young Families.* Commission on Work, Family, and Citizenship (November), William T. Grant Foundation.

Wimberley, R. C. and L. V. Morris. 1996. *The Reference Book on Regional Well-Being: U. S. Regions, the Black Belt, Appalachia.* No. 203(November). Southern Rural Development Center.

Zahs, D., S. Pedlow, M. Morrissey, P. Marnell, and B. Nichols. 1995. *High School and Beyond Fourth Follow-Up Methodology Report.* (January). National Opinion Research Center, University of Chicago .