Youth & Society
Volume 38 Number 1
September 2006 29-57

10.1177/0044118X05282764
http://yas.sagepub.com
hosted at
http://online.sagepub.com

When and Why Dropouts Leave High School

Elizabeth Stearns
University of North Carolina at Charlotte
Elizabeth J. Glennie
Duke University

Teens may leave school because of academic failure, disciplinary problems, or employment opportunities. In this article, the authors test whether the reasons dropouts leave school differ by grade level and age. We compare dropout rates and reasons across grade levels and ages for all high school students, ethnic groups, and gender groups. Across all students, ninth graders have the highest dropout rate: This pattern persists for Blacks, Latinos, and Native Americans, and for male students. Dropout reasons vary by age, grade, ethnicity, and gender as well. Ninth graders and students aged 16 and younger are more likely than advanced and older students to leave school for disciplinary reasons. Older male students are more likely than younger males to leave school for employment. The significant variation in dropout rates and reasons by grade level and age indicates that multiple dropout processes may influence teens to leave school.

Keywords: *dropout rates and reasons; race and dropping out; gender and dropping out*

Throughout adolescence, teens make many important decisions, not least of which is the decision whether to persist with formal education. While making these decisions, high school students face forces such as disciplinary policies, employment opportunities, and family responsibilities that may push or pull them out of school. In many ways, the decision to stay in school

Authors' Note: Please direct all correspondence to Elizabeth Stearns at University of North Carolina at Charlotte, Department of Sociology and Anthropology, 9201 University City Blvd., Charlotte, NC 28223; e-mail: mestearn@uncc.edu. An earlier version of this article was presented at the American Sociological Association Annual Meeting in August, 2003. This research is based on data from the North Carolina Education Research Data Center at Duke University, directed by Elizabeth Glennie and supported by the Spencer Foundation. The authors also wish to acknowledge the North Carolina Department of Public Instruction for its role in collecting this information.

is outstanding in its importance, as dropping out has both public and private costs.[1] In an economy where education strongly influences pay and occupation, high school dropouts hold a disadvantaged position. They are less likely to participate in the labor force than other adults, and they often become mired in low-wage jobs with few advancement opportunities (Rumberger, 1987). Dropouts have poorer mental and physical health and an increased probability of being incarcerated for committing criminal acts or of becoming dependent on government programs (Grossman & Kaestner, 1997; Rumberger, 1987; Witte, 1997). All these consequences translate into high social costs in the form of costs for incarceration, income transfer programs, and foregone tax income. Those who drop out of school early are less likely than older dropouts ever to receive a GED (Murnane, Willet, & Tyler, 1999). Thus, the social costs for early dropouts are higher than for later dropouts.

Previous research on high school dropouts has not explicitly examined how the process of dropping out of high school varies for ethnic and gender groups (see Glennie & Stearns, 2002, for an exception) or how this process varies by age or grade in school (see Goldschmidt & Wang, 1999, for a comparison of early and late dropouts). Because of societal expectations and physical and social maturation, out-of-school forces, such as employment opportunities, will operate differently on a ninth-grade student than on a high school senior, independent of ethnicity and gender. Ethnicity and gender then combine with age and grade to influence a complex process of withdrawal from formal education.

Newly available data on North Carolina's public school children offer us an unprecedented opportunity to examine the timing of and stated reasons for decisions to drop out of school. We examine two aspects of the dropout process: (a) whether reasons for dropping out vary across different grade levels in high school and across age groups and (b) whether ethnic and gender groups' reasons for dropping out vary across different grade levels and across age groups. Throughout the article, we use a developmental perspective to examine the relations among the ethnicity, gender, grade level and age of a student, and the reasons schools record for why dropouts leave school. The data we use include information about every public school student in the state of North Carolina, ensuring a large sample size from which we can create ethnic and gender groups for extended comparisons and analyses.

We find significant differences in the dropout patterns by gender and ethnicity in the North Carolina public school system. Boys are more likely to drop out of the ninth grade than of subsequent grades, whereas girls have relatively constant dropout rates in the 9th, 10th, and 11th grades that fall off sharply in the 12th grade. Although every ethnic group has its highest

dropout rate in 9th grade and its lowest dropout rate in the 12th grade, this pattern is most pronounced for ethnic minorities. Furthermore, as the developmental perspective would predict, we find significant variation by grade level, age, gender, and ethnicity in the reasons that adolescents leave school, with older students and those in more advanced grades less likely to leave for disciplinary reasons and more likely to leave for academic and employment reasons.

Why Dropouts Leave School

Dropouts may leave school because of a variety of individual and school-based factors. A number of theories have been advanced to explain the reasons students leave school. "Pull-out" theories assume that students make a cost-benefit analysis of their economic interest to remain in or leave school (McNeal, 1997; Mihalic & Elliott, 1997). These theories view the adolescent in a contextual sense, in that schooling is only one important part of the adolescent's life, along with family, the labor market, peers, and churches and other organizations. Out-of-school employment or family responsibilities, for example, might serve to pull these adolescents out of school.

According to pull-out theorists, in the context of a low unemployment rate, students are more likely to leave school because their likelihood of finding employment is high. In 2001, the Bureau of Labor Statistics projected that most new jobs were expected to arise in occupations that only require work-related training, as opposed to postsecondary degrees (Hecker, 2001). Furthermore, the youth labor force (aged 16 to 24) would grow more rapidly than the overall labor force from 2000 to 2010 (Fullerton & Toosi, 2001). These kinds of jobs may be more attractive to teens than to older workers. The perceived opportunity cost for staying in school is high as well because they are forgoing present earning potential to stay in school. Pull-out theories also focus on family responsibilities, including family formation and care of siblings and elders, which may have a greater influence on female students and students of color.

In contrast, factors internal to the school, such as disciplinary policies or conflicts with students or teachers, might serve to push students out of school. "Push-out" theories concentrate on the school factors that discourage students from continuing with their education. Push-out theorists argue that students leave school not only because of their individual attributes but also because of school structure (Fine, 1986, 1991). Jordan, Lara, and McPartland (1996) define push effects as "factors located within the school itself that negatively impact the connection adolescents make with the

school's environment and cause them to reject the context of schooling." These factors can be "structural, contextual, climate-related, or individualized" (p. 64) and can influence certain students to view school as an unwelcoming place. For instance, school policies that dictate suspensions and expulsions for students who miss certain numbers of days and then push the student out of school are one notable example.

The influence of these push-out factors and pull-out factors may depend in part on the ethnicity and/or gender of the students. For example, female students may be more expected to drop out to care for family, whereas male students may also be more likely to be pushed out of school by disciplinary problems (Jordan et al., 1996). We consider these possibilities in the next section.

Dropping Out and the Transition to Adulthood

As Erikson (1963) asserts, adolescence is a time of tremendous transition, but few studies have explicitly examined how the reasons for dropping out change during adolescence.[2] Teens undergo physical and emotional changes while adopting and shedding various social roles as they move from dependence to autonomy. While they are gradually becoming adults, they are neither fully dependent on their parents nor completely autonomous (Buchmann, 1989; Rosow, 1985). Even the meanings and expectations of given roles change during this time. Teens are still sons and daughters, but the meaning of that role for a 16-year-old is vastly different from that of a 6-year-old. Adolescents may choose their own friends, recreational activities, and part-time jobs, but most are economically dependent and legally prevented from making certain adult decisions.

A key part of these transitions is the challenge of establishing an identity (Erikson, 1963). As Erikson points out, adolescents face "the question of how to connect the roles and skills cultivated earlier with the occupational prototypes of the day" (p. 261). In essence, adolescents are attempting to integrate what they already know of themselves with three things: their abilities, physical changes, and "the opportunities offered in social roles" (p. 261). Although Erikson does not mention the impact of gender and racial identities on development in his original work, we expect that social roles offered will differ by teens' sex and racial identities. For instance, a role of parent may be more socially acceptable for teen girls than for teen boys. Throughout the transition to adulthood, teens fight against role confusion, as various social roles—for example, that of student and of worker—may have conflicting demands that then may result in role confusion.

In addition, for many youth of racial minority groups, their process of identity formation may be compounded by the appearance of many mainstream institutions to be primarily White. Thus, adherence to a normative sequence for major events in the transition to adulthood may be stigmatized as a White process. Likewise, adherence to a set of behavioral norms from a White institution such as formal education may also be devalued. For instance, Fordham and Ogbu (1986) and others (Suskind, 1999) discuss the burden of "acting White" among academically gifted African American students, although recent caveats have pointed to the conditions that must be present for this social process to occur (Horvat & Lewis, 2003; Tyson, Darity, & Castellino, 2003). There is also some evidence that this difficulty in adhering to norms might extend to behavioral norms regarding coming to class prepared and cutting class for some ethnic groups (Blau, 2003), although this research also suggests that these behaviors are influenced by context as well as by individual propensities. Nevertheless, the development of racial and gender identities add complexity to the developmental process Erikson originally described. Thus, we might expect that dropout rates and reasons will vary by both grade and age as teens undergo various transitions to adulthood.

Dropout Reasons and Age

Although the physical, social, and emotional changes during adolescence have a gradual onset and teens can take multiple pathways to adulthood, legal and institutional requirements lead to some standardization in the timing of transition markers. Children can work in family farms at any age. At age 14, North Carolinians can work in nonhazardous jobs during restricted hours. At age 16, they can work in nonhazardous jobs at any time for any number of hours (North Carolina Department of Labor, 2003). In addition, at age 16, teens can obtain a driver's license, which may dramatically increase their independence from their parents. They can marry, provided that their parents give consent (Legal Information Institute, 1999). By the age of 18, teens are fully legally emancipated from their parents. They can hold any job and marry without parental consent.

Thus, our first hypothesis is that pull-out factors, particularly employment, have a greater influence on older, more advanced students. Older teens have more options for leaving school for work or marriage and may be called on more frequently to contribute both paid and unpaid work for the family's well-being.

Previous research on push-out factors, particularly disciplinary problems, has indicated the extent to which they are aimed at students in the earlier

grades of high school (Fine, 1991). By the 1990s, most American schools had implemented "zero tolerance" policies, which mandate predetermined consequences for specific offenses, such as drug and alcohol use. (National Center for Education Statistics, 1998b). Such policies may have a stronger impact on students who are repeatedly suspended at young ages. Furthermore, schools may want to suspend or expel students with problematic behavior as early as possible by getting rid of troublesome students rather than changing the school environment to reduce discipline problems (Fine, 1991; Slee, 1986). Thus, our second hypothesis concerns the concentration of push-out reasons for dropping out among younger, less advanced students. We hypothesize that push-out factors, particularly disciplinary problems, will have a greater influence on younger, less advanced students and will then decline as students age.

Dropout Reasons, Gender, and Ethnicity

The events in the transition to adulthood will influence teens differently, depending on their age, gender, and ethnicity. In addition to legal requirements for specific transitions to adulthood, there are normative social standards for the sequence in which these events occur: completion of school, first full-time job, first marriage, and first child born. Departing from this ordering of events can have negative consequences. For example, boys with jobs requiring high numbers of hours worked during long periods tend to withdraw from school more rapidly than their peers (Marsh, 1991; Mortimer & Johnson, 1998; Paternoster, Bushway, Brame, & Apel, 2003). Similarly, teen pregnancy is associated with lower educational aspirations and educational attainment (Manlove, 1998).

As mentioned above, the timing, ordering, and consequences of events in the transition to adulthood vary by race and gender (Hogan & Astone, 1986; Shanahan, 2000). For example, childbirth before marriage is more common among Blacks than Whites; however, Whites who become pregnant are more likely to drop out of school than pregnant Black teens are (Manlove, 1998). Teens who are struggling academically may not expect to attend college. These adolescents may not perceive a high opportunity cost to early parenthood or employment; instead, these activities may provide them with alternative pathways to adulthood. As the traditional male adult role has focused on the public sphere of employment and the traditional female adult role has focused on the private sphere of family (Brush, 1999), boys and girls may choose different alternative paths to adulthood.

Thus, our next set of hypotheses concerns both the gendered and racialized reasons for which students leave school. We expect to find that girls are more likely than boys to leave school for family reasons, including early family formation and caretaking responsibilities for their natal families. Given larger family sizes, African American and Latina girls may be more subject to family care responsibilities. We also expect to find that boys are more likely than girls to leave for employment reasons, with White boys more likely than boys of other ethnic groups to leave school for employment reasons, given their relatively advantaged position in the labor market.

In addition to work and family, students may also leave school for other reasons. Some struggle academically. Boys are more likely than girls to repeat a grade in school, and minorities are more likely than Whites to do so (Freeman, 2004). Many studies of grade retention (e.g., Dawson, 1998) find that the reported academic gains from repeating a grade disappear several years later, and the retained students eventually fall behind and are more likely to drop out of school. Furthermore, boys are also more likely than girls to be diagnosed with learning disabilities. African American and Latino students are more likely than Whites to be diagnosed with learning disabilities, and among diagnosed students, they are more likely than Whites to be placed in restrictive educational settings where they are isolated from regular classrooms and nondisabled peers (Fierros & Conroy, 2002). Thus, we expect that boys will be more likely than girls to leave school for academic problems and that African American and Latino students will be more likely than White students to leave school for this reason.

In addition to academic problems that boys may face, a considerable body of literature has documented that boys and ethnic minorities are the focus of school disciplinary policies (Doyle, 1989; Fine, 1991; Jordan et al., 1996). Schools with a high concentration of poor or minority students are slightly more likely to have zero-tolerance policies in place (National Center for Education Statistics, 1998a). Some research indicates that teachers may bias their judgments of student behavior, depending on both the teachers' race and that of their students, with White teachers seeing the behavior of African American students as more disruptive (Downey & Pribesh, 2004). In addition, Blau (2003) finds that African Americans are more likely than teens of other racial and ethnic groups to engage in some behaviors that break school rules and norms, such as failing to complete homework, cutting class, and arriving at school late. Thus, our final hypothesis concerns the extent to which the disciplinary reasons for dropping out will be prevalent among boys and among ethnic minorities. We expect that boys will be more likely to leave school for disciplinary reasons than girls,

but that these effects will be moderated by ethnicity. Thus, we might expect that African American girls will be subjected to disciplinary consequences even though boys overall are more likely to leave school for disciplinary reasons than girls.

In addition to the aforementioned dropout reasons, we can reasonably expect to find ethnic differences in dropping out because of school moves. National statistics have shown the persistently higher mobility rates of Latino students in comparison to those students of other racial and ethnic groups (National Center for Education Statistics, 1998c). Other research has shown the negative effects of mobility on student outcomes, particularly for those students who are making nonscheduled or nonpromotional school changes along with their moves (e.g., Rumberger, 1995). Specifically, Ream (2003) has demonstrated how deleterious these moves can be for Mexican American students who may lack the social ties necessary to buffer them from these moves. Thus, we expect to find that Latino students are more likely than students of other racial and ethnic groups to leave school because of moving.

Although we could also reasonably expect to find significant ethnic and gender differences in the other dropout reasons, we have no a priori expectations about how ethnicity and gender might influence students' probability of dropping out for attendance reasons.

Data and Methods

Data Source

In this article, we compare dropout reasons by grade and age throughout the entire high school career. Data for this project come from the North Carolina Education Research Data Center at Duke University, which houses data on every student in the public schools of North Carolina from the 1996 to 1997 school year to the present. The North Carolina Department of Public Instruction provides most of these data, which include the following information for all dropouts: their gender and ethnicity, their school, age, and grade at the time of dropout, and their reasons for leaving. Reasons for dropping out include academic problems, disciplinary problems (including suspensions, expulsions, and incarcerations), employment, family reasons (including pregnancy, marriage, and caring for children), and attendance reasons.[3] In this study, academic and disciplinary problems are push-out factors, and employment, family, and moving reasons are pull-out factors for leaving school. We analyze the attendance problems as dropout reasons.

This dataset includes information on the entire population of children who have dropped out of North Carolina's public schools. Rather than relying on the dropouts themselves to respond to questionnaires or surveys, this dataset relies on the schools' reports of dropout status. Following federal guidelines, all schools report dropout status in the same manner at the same time.

Having data on so many students permits us to create categories of students based on their gender and ethnicity (see below) with sufficient statistical power to examine how the reasons for dropping out vary across these subgroups.[4] Explicit tests of the relations between race, gender, and dropout reasons are difficult with limited sample sizes, which become even smaller when researchers draw finer delineations among race and gender groups. In this study, the sample size is large enough to create race-gender groupings for African American, Latino, and White high school students and to examine the ways in which the reasons they have for leaving school vary by age and grade in school.

Ideally, we would have access to information about the dropouts' socioeconomic status and household composition, but these data are not available. Although students' social class has been shown to influence their probability of dropping out of school, it is less clear how socioeconomic status influences dropout reasons within a population of dropouts.[5] Although we realize that there are probably differences in social class background in our population of dropouts, it is also likely that, because they are dropouts, they are virtually all disadvantaged to a certain extent.

It would also be useful to establish longitudinal cohorts and trace the progress of the panel of students throughout school. Unfortunately, because of the different reporting guidelines for state dropout and other student files, the creation of these longitudinal data files that include both dropouts and nondropouts is not possible.

Sample and Variables

The sample consists of a cross-section of dropouts from the school year 1998 to 1999, including those who left the 9th, 10th, 11th, and 12th grades. The dropout variable is based on the schools' reports of which students dropped out the previous year. This information is collected in October of every school year and includes those who began the previous school year in a given grade and either dropped out during that school year or did not return to school following the summer break. For example, a student who was enrolled in the ninth grade during the 1998 to 1999 school year and finished the ninth grade but did not return to school during the fall of 1999

would be counted as a ninth grade dropout, as would a student who left the ninth grade during the 1998 to 1999 school year.

Schools also collected information on the student's age when he or she left school. We break down the ages at which the students left in the following manner: age 16 and below, age 17, and age 18 and above. Although 10.94% of our dropouts were reported to have left school at age 15, we include them with those who left school at age 16 because data do not permit determining the precise date they officially withdrew from school and their age on that date. For instance, a 15-year-old student could finish the ninth grade, turn 16 during the summer, and not return to school in the fall. Schools would report that that student left school at age 15. Furthermore, North Carolina, like many other states, has set 16 as the minimum age for dropping out of school legally: We suspect that the process of withdrawing from school begins much earlier, culminating in an official withdrawal date at age 16. We analyze the grade and age at which the teens leave school separately because, although these factors are associated, this relationship is far from perfect owing to a variety of factors, including prior grade retention, student health problems, and variable ages at which students begin school.

Schools also provide data on the gender and ethnicity of each dropout, which parents report when they register children for school. Rather than using separate variables for ethnicity and gender, we combine the ethnicity and gender variables into a series of dichotomous variables as follows: African American male, African American female, Latino male, Latina female, White male, and White female. We contend that the process of dropping out of school varies by both ethnicity and gender simultaneously and that using the dichotomous variables in this fashion better measures the cumulative impact of ethnicity and gender on the educational experiences of these students.

Our analysis strategy has several different steps. First, taking the sample of dropouts in a descriptive analysis, we briefly describe the extent to which dropout rates and the prevalence of dropout reasons vary by grade level and ethnic and gender groups. Next, we use hierarchical logistic modeling with the program HLM (v. 5.02) to examine different facets of processes of dropping out, including the extent to which the reasons for dropping out vary by (a) ethnicity and gender, (b) grade level, and (c) age. We chose this method because of the bias in standard errors that would occur if we conducted logistic regression without accounting for the clustering of observations (students) within units (schools). Finally, we examine the reasons for dropping out and how they vary by grade level, age, and ethnicity and gender for the dropouts in question in a multivariate context. In each analysis, we calculate tests of statistical significance of differences in the dropout

Table 1a
Frequencies of Ages and Grades of Dropouts

	Age					
	16 and Younger		17		18 and Above	
Grade Level	*N*	%	*N*	%	*N*	%
9	4,071	74.56	1,104	20.22	285	5.22
10	1,821	43.64	1,579	37.84	773	18.52
11	638	19.27	1,425	43.05	1,247	37.67
12	13	0.82	502	31.73	1,067	67.45

rates, comparing earliest and youngest dropouts to more advanced and oldest dropouts.

Results and Discussion

Table 1a illustrates our rationale for using both age and grade in models, as the two variables are not perfectly correlated. There are dropouts from each age group dropping out of every grade. To illustrate this point, there are 18 year-olds who drop out of the ninth grade, as well as students in their twenties who drop out of tenth, eleventh, and twelfth grades. As Table 1a shows, in our population of dropouts, 74.56% of the dropouts from the ninth grade are age 16 or below, 20.22% are age 17, and 5.22% are age 18 or above. Similarly, 43.64% of the dropouts from the tenth grade are age 16 or below, 37.84% are age 17, and 18.52% are age 18 or above.

Table 1b provides further descriptive analysis of dropout rates through high school for students of various ethnic groups.[6] Significance tests compare dropout rates within race groups and within gender groups: For example, the dropout rate for White 12th graders (4.01%) is significantly lower than that for White 9th graders (7.51%), but the rates for 10th and 11th graders (7.45% and 7.00%) do not differ substantially from those of 9th graders. Table 1b shows that the dropout rates for each ethnic group except Whites are highest in the 9th grade. Male students show a similar pattern in that their highest dropout rate is in the 9th grade. Females, on the other hand, have relatively constant dropout rates across the 9th, 10th, and 11th grades, which then fall off significantly in the 12th grade.

Tables 2a and 2b illustrate how dropout reasons vary by grade and by age. More specifically, Tables 2a and 2b report the percentage of dropouts

(text continues on p. 45)

Table 1b
Comparing Dropout Rates Across Grade Levels, by Ethnic Group and by Gender

	9th Grade		10th Grade		11th Grade		12th Grade		Total	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
White	39,375	7.51	32,926	7.45	29,154	7.00	25,369	4.01***	126,824	6.71
Native American	521	17.27	344	10.76**	248	10.89*	175	4.00***	1,288	12.50
African American	20,528	10.32	15,336	9.38*	12,554	8.44***	10,028	4.90***	58,446	8.74
Latino	1,625	12.68	1,072	13.81	839	8.11***	622	5.15***	4,158	10.92
Males	33,388	10.33	25,628	9.41***	21,286	8.47***	17,662	4.92***	97,964	8.71
Females	29,728	6.77	25,082	7.02	22,398	6.73	19,282	3.70***	96,490	6.21
Overall	63,116	8.65	50,710	8.23	43,684	7.58	36,944	4.28	194,454	7.47

Note: Significance tests are differences between 9th graders and other grade levels, within ethnic and gender groups.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 2a
Percentage of Dropouts Leaving School for Push-Out, Pull-Out, and Dropout Reasons by Ethnicity, Gender, and Grade Level

	Push-Out Reasons		Pull-Out Reasons		Dropout Reasons	
	Academic	Disciplinary	Employment	Family	Moving	Attendance
9th grade (N = 5,394)						
African American males	5.89	19.44	7.81	2.21	7.00	57.07
African American females	5.61	7.34	6.14	6.14	5.34	68.62
Latino males	5.65	4.84	13.71	2.42	20.16	52.42
Latina females	6.10	1.22	8.54	8.54	21.95	51.22
White males	8.07	10.76	14.49	2.14	5.98	57.79
White females	6.20	3.33	10.83	8.43	6.39	62.78
Overall	6.54	10.66	10.66	4.21	6.95	59.96
10th grade (N = 4,210)						
African American males	6.24	15.70	9.82	1.96	6.58	59.01
African American females	5.85	3.37	7.62	7.45	4.26	69.86
Latino males	4.41	10.29	14.71	2.94	13.24	54.41
Latina females	3.75	1.25	10.00	12.50	18.75	50.00
White males	8.74	8.30	18.57	1.82	5.90	55.79
White females	7.05	2.22	14.58	9.36	5.60	58.20
Overall	7.11	7.52	13.71	4.88	6.09	59.10

(continued)

Table 2a (continued)

	Push-Out Reasons		Pull-Out Reasons		Dropout Reasons	
	Academic	Disciplinary	Employment	Family	Moving	Attendance
11th grade (N = 3,274)						
African American males	7.52	11.11	12.99	0.86	4.44	63.08
African American females	7.43	2.97	11.04	10.19	6.79	60.08
Latino males	11.11	2.78	16.67	2.78	11.11	55.56
Latina females	19.35	0.00	16.13	12.90	9.68	38.71
White males	9.75	5.74	20.05	3.01	5.74	54.60
White females	6.20	1.37	16.30	9.04	5.05	59.62
Overall	8.00	4.92	15.97	5.59	5.62	58.55
12th grade (N = 1,581)						
African American males	7.64	10.18	14.55	2.91	5.82	58.91
African American females	11.16	1.40	9.30	7.91	9.30	60.47
Latino males	11.11	11.11	16.67	5.56	0.00	55.56
Latina females	7.14	14.29	7.14	14.29	14.29	42.86
White males	14.31	4.89	16.67	1.81	5.07	56.52
White females	7.51	0.86	12.66	10.09	4.72	60.73
Overall	10.44	4.30	14.10	5.57	5.69	58.51

Source: North Carolina Department of Public Instruction, 2000.

Note: 14,364 students in 247 schools. Numbers may not sum to 100 across rows because of the presence of other, unanalyzed dropout reasons.

Table 2b
Percentage of Dropouts Leaving School for Push-Out, Pull-Out, and Dropout Reasons by Ethnicity, Gender, and Age

	Push-Out Reasons		Pull-Out Reasons		Dropout Reasons	
	Academic	Disciplinary	Employment	Family	Moving	Attendance
16 or younger (N = 6,455)						
African American males	4.13	22.13	6.34	2.72	7.75	55.63
African American females	3.79	6.82	5.93	5.56	6.19	70.20
Latino males	2.61	8.70	11.30	3.48	24.35	48.70
Latina females	3.49	1.74	11.30	9.57	20.00	49.57
White males	7.40	10.66	14.94	2.41	6.64	56.40
White females	6.22	2.73	13.15	9.31	5.87	59.64
Overall	5.92	9.26	11.67	5.27	7.23	58.79
17 (N = 4,560)						
African American males	6.33	16.97	11.04	1.61	7.33	56.73
African American females	8.28	4.14	10.51	10.03	5.10	60.83
Latino males	7.81	3.13	14.06	1.56	10.94	62.50
Latina females	18.64	1.70	6.78	11.86	22.03	38.98
White males	9.37	7.25	19.43	1.81	5.18	56.03
White females	6.69	1.70	15.27	8.01	5.18	61.17
Overall	7.92	7.54	14.76	4.58	5.88	58.33

(continued)

Table 2b (continued)

	Push-Out Reasons		Pull-Out Reasons		Dropout Reasons	
	Academic	Disciplinary	Employment	Family	Moving	Attendance
18 or older (N = 3,354)						
African American males	8.68	9.51	12.25	1.55	4.02	63.89
African American females	8.98	1.90	8.29	7.95	6.05	66.15
Latino males	11.94	5.97	20.90	2.99	4.48	53.73
Latina females	0.00	3.03	12.12	15.15	6.06	60.61
White males	12.50	4.50	18.50	2.40	4.90	56.80
White females	8.08	0.81	12.12	10.51	5.25	61.21
Overall	9.84	5.13	13.71	4.47	4.92	61.30

Source: North Carolina Department of Public Instruction, 2000.

Notes: N = 14,364 students in 247 schools. Numbers may not sum to 100 across rows because of the presence of other, unanalyzed dropout reasons.

leaving school for push-out, pull-out, and dropout reasons by ethnicity, gender, and grade level (Table 2a) and ethnicity, gender, and age (Table 2b). First, Table 2a indicates that the relative importance of several dropout reasons varies by grade. For instance, academic reasons steadily gain importance during high school, with only 6.54% of dropouts leaving the 9th grade because of academic reasons, whereas 10.44% of dropouts leave the 12th grade because of academic reasons. Employment reasons follow a similar pattern, with students more likely to leave later grades for employment than they are to leave earlier grades. In contrast, leaving for disciplinary reasons is most often seen in the 9th grade, with declining frequency thereafter. Here, 10.66% of 9th grade dropouts leave for disciplinary reasons, whereas 4.30% of 12th graders leave school for this reason. Family, moving, and attendance reasons do not vary through the high school career.

Table 2a also reveals the extent to which ethnicity and gender combine to condition the reasons for which adolescents leave school. For example, African American males are more likely to be thrown out of high school for disciplinary reasons than are members of any other ethnic or gender group in the 9th, 10th, and 11th grades. In contrast, African American females are less likely than all males to leave school for disciplinary reasons. On the other hand, family reasons for leaving school seem to be dominated by females, with Latinas in every grade most likely to leave for this reason. Employment reasons for leaving school vary by gender and ethnicity. During the 9th, 10th, and 11th grades, Latino males and White males most frequently leave school for employment reasons, followed closely by White females.

Academic and moving reasons do not appear to be as explicitly gendered. White males drop out for academic reasons more frequently than other ethnic and gender groups in the 9th, 10th, and 12th grades, but Latino males and females leave for academic reasons more frequently in the 11th grade. Both male and female Latinos are more likely than members of other ethnic groups to leave school for moving reasons in 9th, 10th, and 11th grades.

Table 2b shows dropout reasons by ethnicity, gender, and age. Dropout reasons do not vary as systematically across ages as they do across grades. Although the prevalence of dropping out for family and moving reasons falls with age and the prevalence of dropping out for academic reasons increases with age, the increments are not very large. What is remarkable in this table, however, is the steady decline in the percentage of African American and White male dropouts who leave school for disciplinary reasons as they age. Of African American 16-year-old males, 22.13% of dropouts leave for disciplinary reasons, compared with 9.51% of African American 18-year-old males. In fact, this steady decline is seen in all ethnic and gender groups. Furthermore, every ethnic and gender group has a steady increase in the

percentage leaving for academic reasons as they age, with the exception of Latinas.

Employment reasons also show an interesting pattern in Table 2b. Seventeen-year-olds of every ethnic and gender group (except Latinas) more frequently leave for employment reasons than do 16-year-olds. This result is not surprising in that they probably have more employment opportunities because of fewer state-imposed restrictions on their employment. The probability of dropping out for employment reasons does not increase linearly for all ethnic and gender groups with age, however: Eighteen-year-olds in several ethnic and gender groups are less likely to drop out for employment reasons than are their younger counterparts. This lack of linearity for ethnic and gender groups is also seen in family reasons, as only Latinas have a linear increase of the percentage leaving school for family reasons with age.

Next, we use multilevel modeling to examine the reasons for which members of various ethnic or gender groups leave school. Table 3 reveals significant differences by ethnicity and gender in the reasons that dropouts leave school. For example, analysis of the push-out reasons reveals that some of our hypotheses were supported: White females are less likely than White males to leave school for academic reasons. Contrary to our hypotheses, however, African American males and females are also less likely than White males to leave for academic reasons. As we expected, African American males are significantly more likely than White males to leave school for disciplinary reasons, but all groups of females are significantly less likely than White males to do so.

Analysis of the pull-out reasons reveals similar differences in dropping out that are conditioned by ethnicity and gender, again sometimes consistent with our hypotheses. Although African American males and all females are less likely than White males to leave for employment reasons, Latino males are equally as likely as White males to leave for employment reasons. Additionally, females of all three ethnic groups are more likely to leave school for family reasons than are White males. Across all male groups, there is no difference in rates of leaving school for family reasons. The *moving* reason for dropping out is primarily conditioned by ethnicity, with both Latino males and females more likely to drop out because of moving than are White males. Finally, the analysis of the attendance reason reveals that females from both African American and White ethnic groups are more likely than White males to leave school for attendance problems.

Next, we investigate the extent to which the reasons for leaving school vary across grade level and age, using analyses that control for the clustering of students in schools. As stated in the hypotheses, push and pull forces may

Table 3
Beta Coefficients and Odds Ratios From Within-School Model of Reasons for Dropping Out

	Push-Out Reasons				Pull-Out Reasons				Dropout Reasons			
	Academic		Disciplinary		Employment		Family		Moving		Attendance	
	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio
Intercept	–2.39***	0.09	–2.32***	0.10	–1.65***	0.19	–3.62***	0.03	–2.80***	0.06	0.25**	1.28
Individual-level variable												
African American male	–0.23*	0.80	0.71***	2.03	–0.30***	0.74	–0.15	0.86	–0.19	0.83	–0.03	0.97
African American female	–0.24*	0.79	–0.61***	0.54	–0.51***	0.60	1.36***	3.90	–0.05	0.96	0.18**	1.20
Latino male	–0.41	0.66	–0.26	0.77	–0.15	0.86	0.13	1.14	0.96***	2.61	–0.06	0.95
Latina female	–0.36	0.70	–1.55**	0.21	–0.61**	0.55	1.66***	5.26	1.02***	2.78	–0.16	0.85
White female	–0.37***	0.69	–1.36***	0.26	–0.27***	0.77	1.38***	3.97	–0.02	0.98	0.15**	1.16
Model fit statistics	Academic		Disciplinary		Employment		Family		Moving		Attendance	
Deviance	36318.45		39198.62		38169.82		35924.63		36790.73		40545.31	
Reliability	0.71		0.60		0.82		0.64		0.68		0.89	

Source: North Carolina Department of Public Instruction, 2000.
Note: N = 14,364 students in 247 schools. Dichotomous student-level variables are not centered. Student-level variables are used as fixed parameters.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$ with a two-tailed test of significance.

operate differently on students at various grades and ages. Table 4 shows dropout reasons by grade level, and Table 5 shows dropout reasons by the age of the student when he or she left school.

Table 4 demonstrates the dramatic decline in the importance of disciplinary problems as students progress through school. This push factor decreases in importance after the ninth grade as ninth graders are significantly more likely to leave school for disciplinary reasons than are those in every later grade. Results for the other push reason, academic problems, show that 12th graders are more likely to leave school for academic reasons than are 9th graders.

At the same time, Table 4 shows the growth in importance of employment and family in pulling students out of school as they progress through grades. Ninth grade dropouts are significantly less likely to leave school for employment reasons than are dropouts from succeeding grades. Family reasons also show the same broad pattern, with 11th and 12th graders significantly more likely to leave school for family reasons than are 9th graders. For the dropout reasons, there is some indication that schools are less likely to know the reasons for which 10th, 11th, and 12th graders leave school than they are to know why 9th graders leave.

Extending the analyses from the preceding table, Table 5 shows how age influences the importance of push and pull factors in the dropout process. As in Table 4, the youngest students are most likely to leave high school for disciplinary reasons. Table 5 also demonstrates that younger dropouts are less likely to leave school for academic reasons than are older dropouts. These older dropouts are the dropouts for whom school-based, academically oriented intervention strategies may be most effective.

In addition, Table 5 also reveals the increasing importance of employment reasons in pulling students out of school as they age: As teens age, they have more employment opportunities available to them, and with more skills, they may be more attractive to employers. It is also important to note the cross-sectional nature of the data here, in that the dropouts of different ages are facing the labor market at the same time period. Therefore, Table 5 shows that older dropouts are more likely to leave school for employment reasons than are those dropouts aged 16 and under. Although grade level did not affect leaving school for moving, age does, with older students less likely to drop out for moving reasons than younger students.

Table 6 includes all the independent variables jointly. On the whole, the patterns seen in the previous three tables hold with the inclusion of the other variables. For instance, all the ethnic and gender effects in Table 3 remain when the age and grade variables are included, indicating that the

(text continues on p. 52)

Table 4
Beta Coefficients and Odds Ratios From Within-School Model of Reasons for Dropping Out

	Push-Out Reasons				Pull-Out Reasons				Dropout Reasons			
	Academic		Disciplinary		Employment		Family		Moving		Attendance	
	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio
Intercept	–2.67***	0.07	–2.09***	0.12	–2.09***	0.12	–3.01***	0.05	–2.72***	0.07	0.35***	1.42
Individual-level variable												
10th grade	0.06	1.06	–0.33***	0.72	0.34***	1.40	0.14†	1.15	–0.12	0.89	–0.07†	0.93
11th grade	0.16	1.18	–0.77***	0.46	0.47***	1.60	0.26**	1.29	–0.14	0.87	–0.08†	0.92
12th grade	0.41**	1.51	–0.88***	0.41	0.46***	1.58	0.27*	1.30	–0.22†	0.80	–0.12*	0.89
Model fit statistics	Academic		Disciplinary		Employment		Family		Moving		Attendance	
Deviance	36326.54		39280.45		38174.60		37191.73		36894.50		40558.12	
Reliability	0.72		0.61		0.82		0.65		0.68		0.89	

Source: North Carolina Department of Public Instruction, 2000.
Note: N = 14,364 students in 247 schools. Student-level variables are not centered. Student-level variables are used as fixed parameters.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$ with a two-tailed test of significance.

Table 5
Beta Coefficients and Odds Ratios From Within-School Model of Reasons for Dropping Out

	Push-Out Reasons				Pull-Out Reasons				Dropout Reasons			
	Academic		Disciplinary		Employment		Family		Moving		Attendance	
	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio
Intercept	–2.82***	0.06	–2.20***	0.11	–2.04***	0.13	–2.82***	0.06	–2.67***	0.07	0.33***	1.39
Individual-level variable												
Age 17	0.31***	1.36	–0.23**	0.79	0.36***	1.44	–0.09	0.92	–0.22*	0.80	–0.07†	0.93
Age 18+	0.60***	1.82	–0.64***	0.53	0.37***	1.45	–0.11	0.89	–0.35**	0.70	–0.02	0.98
Model fit statistics	Academic		Disciplinary		Employment		Family		Moving		Attendance	
Deviance	36271.47		39236.87		38221.44		37205.29		36838.42		40547.41	
Reliability	0.72		0.63		0.82		0.65		0.68		0.89	

Source: North Carolina Department of Public Instruction, 2000.
Note: N = 14,364 students in 247 schools. Student-level variables are not centered. Student-level variables are used as fixed parameters.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$ with a two-tailed test of significance.

Table 6
Beta Coefficients and Odds Ratios From Within-School Model of Reasons for Dropping Out

	Push-Out Reasons				Pull-Out Reasons				Dropout Reasons			
	Academic		Disciplinary		Employment		Family		Moving		Attendance	
	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio	Beta	Odds Ratio
Intercept	–2.58***	0.08	–2.00***	0.14	–1.97***	0.14	–3.69***	0.03	–2.67***	0.07	0.30***	1.35
Individual-level variable												
African American male	–0.33**	0.72	0.81***	2.24	–0.33***	0.72	–0.15	0.86	–0.16	0.85	–0.05	0.95
African American female	–0.30**	0.74	–0.56***	0.57	–0.54***	0.59	1.36***	3.89	–0.06	0.95	0.18**	1.19
Latino male	–0.35	0.70	–0.26	0.77	–0.08	0.92	0.14	1.16	0.97***	2.65	–0.08	0.92
Latino female	–0.11	0.89	–1.62**	0.20	–0.57**	0.57	1.69***	5.44	1.05**	2.87	–0.17	0.85
White female	–0.31**	0.73	–1.40***	0.25	–0.27**	0.76	1.36***	3.91	–0.05	0.95	0.17***	1.18
10th grade	–0.09	0.91	–0.11	0.89	0.28***	1.32	0.11	1.11	–0.01	0.99	–0.09*	0.91
11th grade	–0.13	0.88	–0.32**	0.73	0.37***	1.45	0.20	1.22	0.06	1.06	–0.14**	0.87
12th grade	–0.02	0.98	–0.26*	0.77	0.31**	1.37	0.17	1.19	0.10	1.11	–0.20**	0.81
Age 17	0.35**	1.42	–0.29***	0.75	0.24***	1.27	–0.07	0.93	–0.23*	0.79	0.00	1.00
Age 18+	0.65***	1.91	–0.78***	0.46	0.21**	1.23	–0.03	0.97	–0.37*	0.69	0.11*	1.11
Model fit statistics	Academic		Disciplinary		Employment		Family		Moving		Attendance	
Deviance	36270.96		39181.51		38285.74		35964.15		36751.85			
Reliability	0.67		0.59		0.82		0.61		0.67			

Source: North Carolina Department of Public Instruction, 2000.
Note: N = 14,364 students in 247 schools; Dichotomous student-level variables are not centered; Student-level variables are used as fixed parameters.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$ with a two-tailed test of significance.

ethnic and gender relations are not because of differences in the ages or grades at which the students drop out.

For the pullout reasons, two significant grade effects from Table 4 are no longer significant with the inclusion of the age variables. In Table 4, 12th graders were significantly more likely to drop out of school for academic reasons than were 9th graders. Table 6 shows that age moderates this relationship and that perhaps 12th graders are more likely to drop out for academic reasons than 9th graders because of differences in their age distribution, as older students are more likely to leave school for academic reasons. In addition, in Table 4, we also found that 10th graders were less likely to drop out for disciplinary reasons than were 9th graders: With the inclusion of the age variables, we find that 10th graders are no longer significantly less likely to leave school for disciplinary reasons. This result suggests that 10th graders are less likely to be subject to disciplinary policies because of their relatively advanced age.

In addition, Table 6 shows one major alteration in the results for pull-out reasons. In Table 4, we saw that students in higher grades were more likely to leave school for family reasons. The results in Table 6, however, suggest that part of that effect is due to the age distribution of the various grades, as students in more advanced grades are not significantly more likely to drop out for family reasons than ninth graders.

Conclusion

As adolescents travel through high school, forming their identities, they confront a wide variety of factors that may push or pull them out of school. These factors, including family and employment responsibilities, vary in magnitude according to the age of the students, the grade in which the student is enrolled, and the ethnicity and gender of the student. Students face unique sets of pressures depending on their ethnicity and gender, and they face unique sets of constraints and options depending on their age. Throughout their adolescence, they need to determine whether to conform to mainstream norms and expectations of adolescence and how to integrate their emerging identities with those norms and expectations.

Using data on all students in the North Carolina public school system in the 1998 to 1999 school year, we find significant variation by grade level, age, gender, and ethnicity in the reasons that high school students leave school. Our results point out the varying force of push and pull factors for adolescents at different grades and ages. Hypotheses are held up most strongly with respect to employment, which is typically considered a pull

factor: It increases in importance for adolescents both as they age and as they move through grade levels. This pattern holds for male and female students and is also fairly consistent across ethnic groups. The increasing power of employment to pull students out of school could reflect several factors: better access to a variety of jobs as teens gain human capital with additional schooling and as the restrictions on their paid employment are reduced. In addition, as adolescents age, they may be subject to societal pressure to help provide for their families to a greater degree than are younger adolescents. In other words, some adolescents may face greater pressure to accept the identity of worker over that of student. They may also want the independence that arises from having their own income. Employers may also be more eager to hire older adolescents who have gained maturity, spent more time in high school, or experienced other types of training or employment.

With respect to the other pull factors of family and moving, our hypotheses held up well. We had predicted that girls would be more likely than boys to leave school for family reasons, with African American and Latina girls more likely to do so than White girls. As expected, we found a significant relationship between gender and dropping out for family reasons. It also appears that Latinas are somewhat more likely than White girls to leave school for family reasons, but there does not seem to be a large difference in this dropout reason between White girls and African American girls. We had hypothesized that older students would be more likely to leave for family reasons; we did find that students in more advanced grades were more likely to drop out for family reasons, but these results were not robust to the introduction of the age variables. Further investigation on this point is needed; it is possible that older girls, like older boys, face more familial pressure to contribute monetarily to a family's upkeep.

As for moving, we had predicted that Latinos would be more likely to drop out for moving reasons than members of other racial groups; indeed, this was the case. We found an inverse relationship between age and probability of dropping out for moving reasons. Perhaps parents of older adolescents are more likely to stay in place or teens may choose to stay in one place on their own, regardless of where and whether their parents are relocating.

Push factors also play a large role in determining who stays in high school. Most striking among the results for push factors are the differences in the percentage of adolescents who are pushed out of school for disciplinary reasons in the ninth grade. We had hypothesized that these push-out events would be largely concentrated in the ninth grade for adolescents of all gender and ethnic groups, and we found this to be the case. Almost 11% of 9th graders and 9% of those dropouts age 16 and under leave school because of disciplinary reasons, a significantly higher percentage than more

advanced and older students who leave school for the same reason. Perhaps these results indicate that public schools rid themselves of the misbehaving youngsters as soon as it is legally possible to concentrate on educating more compliant students.

As we had predicted, male students and African American students are more likely than females and students of other ethnicities to leave school because of suspensions, expulsions, or incarcerations. In addition, the pattern of early dropout for disciplinary reasons holds across gender and ethnic groups and is particularly stark for male students and African American students. Explanations for the increased probability of suffering disciplinary action vary, including racism on the part of teachers and school administrators. One other explanation, based on a developmental perspective, highlights the difficulty of African American males developing an identity that coincides with the behavioral expectations of formal education, an institution that may be viewed as being White, especially if they are both more likely to break some school rules (Blau, 2003) and their behavior is being differentially evaluated (Downey & Pribesh, 2004). Our results cannot speak directly to this controversy: Instead, they show how frequently these types of disciplinary action result in dropout behavior, highlighting the importance of future research in this area.

Students may also be pushed out of school if they suffer academic difficulties. We hypothesized that boys and particularly boys of color would be more likely to drop out for academic reasons, given their greater probability of being retained in school and having generally lower achievement levels. In fact, we found that boys were more likely to drop out for academic reasons, but that White boys were more likely to do so than African American boys and girls. Perhaps those White boys who struggle academically suffer particular stigma, given their otherwise relatively advantaged position in the school. Further investigation should be done on this matter.

Our results also indicate the extent to which studies that focus only on grades 10 to 12 bias results on dropping out. In our data, the dropout rate in the ninth grade was higher than that for any other grade level, and it was particularly high for members of ethnic minority groups. Studies that exclude ninth grade dropouts omit many of those who exhibit the behavior that the studies purport to examine, and they introduce a significant degree of bias because of ethnic differences in dropout rates by grade level. The finding that ninth graders are disproportionately thrown out of school for disciplinary problems across demographic groups indicates that excluding ninth grade dropouts underestimates the extent of dropout due to disciplinary action.

In sum, this study shows that the concept of a dropout process is inaccurate, as students of different gender and ethnic groups are affected by different

push and pull factors at various ages and to varying extents. This realization can serve to help those who design intervention and dropout prevention programs for at-risk youth, as well as concerned school administrators who might like to keep these students enrolled in school.

Notes

1. Social costs associated with dropouts are quantified extensively in Vernez, Krop, and Rydell (1999).

2. Goldschmidt and Wang (1999) compare early dropouts (grades 8 through 10) to late dropouts (grades 11 through 12). However, they do not distinguish 9th graders from 10th graders, nor 11th graders from 12th graders. In addition, they do not examine the effect of age on dropping out independently of grade, nor do they examine dropout reasons.

3. Attendance is often cited by the school as a default reason for dropout when a more specific reason is not known.

4. In contrast, in a study of early dropouts using the National Education Longitudinal Study, Jordan, Lara, and McPartland (1996) begin with a sample size of 1,000 students. Their sample size is then reduced because of missing data.

5. Jordan, Lara, and McPartland (1996) examine this question. In their data, however, students can give multiple reasons for dropping out of school, so the results are not directly comparable to our results.

6. We include Native Americans in Table 1b for descriptive purposes. Unfortunately, the number of Native American dropouts is too small to allow further analyses, and they are not included in subsequent tables.

References

Blau, J. R. (2003). *Race in the schools: Perpetuating White dominance?* Boulder, CO: Lynne Rienner Press.

Brush, L. (1999). Gender, work, who cares?! Production, reproduction, deindustrialization, and business as usual. In M. M. Ferree, J. Lorber, & B. B. Hess (Eds.), *Revisioning gender* (pp. 161-189). Thousand Oaks, CA: Sage.

Buchmann, M. (1989). *The script of life in modern society: Entry into adulthood in a changing world*. Chicago: University of Chicago Press.

Dawson, P. (1998). A primer on student grade retention: What the research says. *National Association of School Psychologists Communique*, *26*(8), 28-30.

Downey, D., & Pribesh, S. (2004). When race matters: Teachers' evaluations of students' classroom behavior. *Sociology of Education*, *77*, 267-282.

Doyle, W. (1989). Classroom management techniques. In O. Moles (Ed.), *Strategies to reduce student misbehavior* (pp. 11-31). Washington, DC: Office of Educational Research and Improvement.

Erikson, E. H. (1963). *Childhood and society*. New York: Norton.

Fierros, E. G., & Conroy, J. W. (2002). Double jeopardy: An exploration of restrictiveness and race in special education. In D. J. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp. 39-70). Cambridge, MA: Harvard Education Press.

Fine, M. (1986). Why urban adolescents drop into and out of high school. *Teachers College Record*, *87*, 393-409.

Fine, M. (1991). *Framing dropouts: Notes on the politics of an urban high school*. Albany: State University of New York Press.

Fordham, S., & Obgu, J. U. (1986). Black students' school success: Coping with the 'burden of acting White.' *The Urban Review*, *18*, 176-206.

Freeman, C. (2004). *Trends in educational equity of girls & women*. Washington, DC: National Center for Education Statistics.

Fullerton, H. N., & Toosi, M. (2001). Labor force projections to 2010: Steady growth and changing composition. *Monthly Labor Review*, *124*(11), 21-38.

Glennie, E., & Stearns, E. (2002). *The relationship between ethnicity and early dropout: Evidence from North Carolina's public schools*. Paper presented at the Southern Sociological Society Annual Meeting, Baltimore, MD.

Goldschmidt, P., & Wang, J. (1999). When can schools affect dropout behavior? A longitudinal multilevel analysis. *American Educational Research Journal*, *36*, 715-738.

Grossman, M., & Kaestner, R. (1997). Effects of education on health. In J. R. Behrman & N. Stacey (Eds.), *Social benefits of education*. Ann Arbor: University of Michigan Press.

Hecker, D. E. (2001). Occupational employment projections to 2010. *Monthly Labor Review*, *124*(11), 57-84.

Hogan, D. P., & Astone, N. M. (1986). The transition to adulthood. *Annual Review of Sociology*, *12*, 109-130.

Horvat, E. M., & Lewis, K. S. (2003). Reassessing the burden of acting White: The importance of peer groups in managing academic success. *Sociology of Education*, *76*, 265-280.

Jimerson, S. R. (1999). On the failure of failure: Examining the association between early grade retention and education and employment outcomes during late adolescence. *Journal of School Psychology*, *37*(3), 243-272.

Jordan, W., Lara, J., & McPartland, J. (1996). Exploring the causes of early dropout among race, ethnic, and gender groups. *Youth & Society*, *28*, 62-94.

Legal Information Institute. (1999). *Marriage laws of the fifty states, District of Columbia, and Puerto Rico.* Ithaca, NY: Cornell Law School. Retrieved May 30, 2004, from http://www.law.cornell.edu/topics/Table_Marriage.htm

McNeal, R., Jr. (1997). Are students being pulled out of high school? The effect of adolescent employment on dropping out. *Sociology of Education*, *70*, 206-220.

Manlove, J. (1998). The influence of high school dropout and school disengagement on the risk of school-age pregnancy. *Journal of Research on Adolescence*, *8*(2), 187-220.

Marsh, H. W. (1991). Employment during high school: Character builder or a subversion of academic goals. *Sociology of Education*, *64*, 172-189.

Mihalic, S., & Elliott, D. (1997). Short and long-term consequences of adolescent work. *Youth & Society*, *28*, 464-498.

Mortimer, J. T., & Johnson, M. K. (1998). New perspectives on adolescent work and the transition to adulthood. In R. Jessor (Ed.), *New perspectives on adolescent risk behavior* (pp. 425-496). New York: Cambridge University Press.

Murnane, R. J., Willet, J. B., & Tyler, J. H. (1999). *Who benefits from obtaining a GED? Evidence from high school and beyond* (Working Paper No. 7172). Washington, DC: National Bureau of Research.

National Center for Education Statistics. (1998a). *Principal/School disciplinarian survey on school violence*. Washington, DC: United States Department of Education.

National Center for Education Statistics. (1998b). *Indicators of school crime and safety.* Washington, DC: United States Department of Education.

National Center for Education Statistics. (1998c). *The condition of education, 1998: Issues in focus. The educational progress of Hispanic students*. Washington, DC: United States Department of Education.
North Carolina Department of Labor. (2003). *Labor laws administered through the North Carolina Department of Labor including amendments through 2002*. Raleigh, NC: Author.
North Carolina Department of Public Instruction. (2000). *North Carolina data on dropouts, 1998-1999* [Data file]. Durham, NC: North Carolina Education Research Data Center.
Paternoster, R., Bushway, S., Brame, R., & Apel, R. (2003). The effect of teenage employment on delinquency and problem behaviors. *Social Forces*, *82*(1), 297-355.
Ream, R. K. (2003). Counterfeit social capital and Mexican-American underachievement. *Educational Evaluation and Policy Analysis*, *25*, 237-262.
Rosow, I. (1985). Status and role change through the life cycle. In *Handbook of aging and the social sciences* (2nd ed., pp. 62-93). New York: Van Nostrand-Reinhold.
Rumberger, R. (1987). High school dropouts: A review of issues and evidence. *Review of Educational Research*, *57*, 101-121.
Rumberger, R. (1995). Dropping out of middle school: A multilevel analysis of students and schools. *American Educational Research Journal*, *32*, 583-625.
Shanahan, M. (2000). Pathways to adulthood in changing societies: Variability and mechanisms in life course perspective. *Annual Review of Sociology*, *26*, 667-692.
Slee, R. (1986). Integration: The disruptive student and suspension. *The Urban Review*, *18*(2), 87-103.
Suskind, R. (1999). *A hope in the unseen: An American odyssey from the inner city to the Ivy League*. New York: Broadway Books.
Tyson, K., Darity, W., & Castellino, D. (2003). Reconceptualizing the role of culture in the 'burden of acting White': A new understanding of an old problem. Paper presented at the Southern Sociological Society Annual Meeting, New Orleans, LA.
Vernez, G., Krop, R. A., & Rydell, P. (1999). *Closing the education gap: Benefits and costs*. Santa Monica, CA: RAND.
Witte, A. D. (1997). Crime. In J. R. Behrman & N. Stacey (Eds.), *Social benefits of education*. Ann Arbor: University of Michigan Press.

Elizabeth Stearns is assistant professor of sociology at the University of North Carolina at Charlotte. She received her PhD from the University of North Carolina—Chapel Hill. Her research interests include education and stratification, particularly how student differences influence their trajectories through school and various outcomes. She is also interested in interracial relations. She has published in *Youth & Society, Sociology of Education, Social Forces*, and *Critical Sociology*.

Elizabeth J. Glennie, PhD, is a research scientist at Duke University's Center for Child and Family Policy and director of the North Carolina Education Research Data Center. She received her doctorate in sociology from Duke University. Much of her research has focused on the American educational system with an emphasis on school engagement and educational achievement. In particular, she analyzes factors that affect teacher job satisfaction and turnover rates as well as those that influence student engagement with school. Her work has been published in *Sociology of Education* and *Social Science Research*.