


Chapter 6
Why Students Drop Out of School

RUSSELL W. RUMBERGER

Reducing the number of high school dropouts has become a national policy concern. One of the National Education Goals adopted in 1990 was to increase the high school graduation rate to 90 percent by 2000, with a school objective to eliminate the existing gap in high school graduation rates between minority and nonminority students (U.S. Department of Education, 1990). More recently, the federal No Child Left Behind (NCLB) Act of 2001 requires states to incorporate graduation rates into their accountability systems for schools and districts (U.S. Department of Education, 2004). As a result of this policy focus, numerous programs at the federal, state, and local levels have been established to help reduce the number of students who drop out of school.

Understanding why students drop out of school is the key to addressing this major educational problem. Yet identifying the causes of dropping out is extremely difficult to do because, like other forms of educational achievement (e.g., test scores), it is influenced by an array of proximal and distal factors related to both the individual student and to the family, school, and community settings in which the student lives.

This chapter examines why students drop out of school; later chapters (Chapter 11) address what can be done about it. This research review focuses on both individual and institutional factors, and how these factors can or cannot explain differences in dropout rates among social groups.

The complexity of this phenomenon is illustrated by the variety of reasons that dropouts report for leaving school. Dropouts from the National Education Longitudinal Study of students who were in eighth grade in 1988 reported a wide variety of reasons for leaving school; school-related reasons were mentioned by 77 percent, family-related reasons were mentioned by 54 percent, and work-related reasons were mentioned by 32 percent (see Figure 1). The most specific reasons were "did not like school" (46 percent), "failing school" (39 percent), "could not get along with teachers" (28 percent), and "got a job" (27 percent).
FIGURE 1

Reasons Given for Dropping Out of School: Dropped from the High School Graduating Class of 1992

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didn't see the need for school</td>
<td>30%</td>
</tr>
<tr>
<td>Didn't like school</td>
<td>25%</td>
</tr>
<tr>
<td>Couldn't get along with teachers</td>
<td>20%</td>
</tr>
<tr>
<td>Too much work with parents</td>
<td>15%</td>
</tr>
<tr>
<td>Was unhappy financially</td>
<td>10%</td>
</tr>
<tr>
<td>Did not feel safe in school</td>
<td>5%</td>
</tr>
<tr>
<td>Had a child at home</td>
<td>3%</td>
</tr>
<tr>
<td>Couldn't keep up with workload</td>
<td>2%</td>
</tr>
<tr>
<td>Did not think I would succeed</td>
<td>1%</td>
</tr>
<tr>
<td>Changed schools due to the way they were</td>
<td>1%</td>
</tr>
<tr>
<td>Did not feel like the right one</td>
<td>1%</td>
</tr>
<tr>
<td>Not enough money</td>
<td>1%</td>
</tr>
<tr>
<td>Not enough friends</td>
<td>1%</td>
</tr>
<tr>
<td>Not interested in school</td>
<td>1%</td>
</tr>
<tr>
<td>Not interested in school</td>
<td>1%</td>
</tr>
</tbody>
</table>

*Percentages are reported as the percentage of respondents who indicated that reason. Respondents could report in up to 4 reasons as they wanted.


percent). But these reasons do not reveal the underlying causes of why students quit school, particularly those causes of factors from long ago that may have contributed to their school behaviors, and their presence immediately preceding their decision to leave school. Moreover, if many factors contribute to this phenomenon over a long period of time, it is virtually impossible to demonstrate a causal connection between any single factor and the decision to quit school. Instead, scholars are limited to developing theories and testing conceptual models based on a variety of social science disciplines and using a variety of qualitative and quantitative research methods.

A number of theories have been advanced to understand the specific phenomenon of dropping out (e.g., Fine, 1980; Webb, Rutter, Smith, Lefker, & Fernandez., 1987). Other theories have been used to explain dropping out as part of the larger phenomenon of student achievement (e.g., Coleman, 1988; Newmann, Wolfsle, & Lambrin, 1992; U.S. Dep., 1992). These theories come from a number of social science disciplines—including psychology, sociology, anthropology, and economics—and identify a range of specific factors related to dropping out. Drawing on these theories, I present two conceptual frameworks that focus on two different perspectives for understanding this phenomenon. One framework is based on an individual perspective that focuses on individual factors associated with dropping out; the other is based on an institutional perspective that focuses on the contextual factors found in students' families, schools, communities, and peers. Both frameworks are useful and, indeed, necessary to understand this complex phenomenon. After presenting each framework and reviewing briefly some empirical evidence that highlights some of the most important factors within each framework, I will discuss the extent to which these frameworks can be used to explain differences in dropout rates among social groups, particularly racial and ethnic minorities. In most cases, the factors identified in this review are derived from multivariate statistical models that control for a number of other predictive factors, suggesting that the identified factor has a direct, causal connection with dropping out independent of other causal factors. Yet statistical models can only suggest causal connections, not prove them, so it is better to think of these factors as predictive of dropping out or increasing the risk of dropping out.

INDIVIDUAL PERSPECTIVE

The first framework is based on an individual perspective that focuses on the attributes of students—such as their values, attitudes, and behaviors—and how these attributes contribute to their decision to quit school. The conceptual framework, illustrated in Figure 2, views the attitudes and behaviors of students through a particular concept—student engagement (Fredricks, Blumenfeld, & Paris, 2004). Several theories have been developed in recent years that suggest that dropping out of school is but the final stage in a dynamic and cumulative process of disengagement (Newmann et al., 1992; Wolfsle et al., 1989) or withdrawal (Fine, 1980) from school. Although there are some differences among these theories, they all suggest that there are two dimensions to engagement: academic engagement, or engagement in learning, and social engagement, or engagement in social dimensions of school (Webb refers to this as school membership). Engagement is reflected in students' attitudes and behaviors with respect to both the formal aspects of school (e.g., classrooms and school activities) and the informal ones (e.g., peer and adult relationships). Both dimensions of engagement can influence the decision to withdraw from school.
A new framework for understanding the relationship between school performance and the likelihood of dropping out of school has been developed. This framework focuses on the role of individual characteristics, such as grade point average, and school characteristics, such as school size and type, in predicting the likelihood of dropping out. The framework also considers the impact of social support and peer influences on student retention.

The framework suggests that students with lower grades and those from smaller schools are at higher risk of dropping out. Additionally, students who receive more social support from peers and teachers are less likely to drop out.

The authors recommend that schools implement strategies to improve student engagement and support systems to reduce the likelihood of dropping out. This could include providing additional academic support, increasing social support, and creating a more inclusive school environment.
ogmental psychology called developmental behavioral science (Jessor, 1993). This paradigm, illustrated in Figure 3, recognizes that the various settings or contexts in which students live—families, schools, and communities—all shape their behavior. This framework was used by the National Research Council Panel on High-Risk Youth (1993), which argued that too much emphasis has been placed on high-risk youths and their families, and not enough on the high-risk settings in which they live and go to school. It was also used by the National Research Council Committee on Increasing High School Students’ Engagement (2004), which showed how schools, families, communities, and peers all contributed to students’ engagement in learning. This view reflects the new emphasis on contexts and not simply individuals.

Empirical research on dropouts has identified a number of factors within students’ families, schools, and communities (and peers) that predict dropping out. Again, for brevity, only some of the most important ones are reviewed below.

**Family Factors**

Family background is widely recognized as the single most important contributor to success in school. Even since early work by Coleman, Jencks, and others found that family background alone could explain much of the variations in educational outcomes (Coleman et al., 1966; Jencks et al., 1972), virtually all research has found that family background still exerts a powerful, independent influence on student achievement. But what aspects of family background matter and how do they influence student achievement?

Much of the empirical research has focused on the *structural* characteristics of families, such as socioeconomic status and family structure. Research has consistently found that socioeconomic status, most commonly measured by parental education and income, is a powerful predictor of school achievement and dropout behavior (Byrk & Thum, 1989; Ekstrom et al., 1986; McNeel, 1999; Pong & Ju, 2000; Rumberger, 1983, 1995; Rumberger & Larson, 1998). Research has also demonstrated that students from single-parent families and two-parent families are more likely to drop out of school than students from two-parent families (Astone & McLanahan, 1991; Ekstrom et al., 1986; Goldschmidt & Wang, 1999; McNeel, 1999; Rumberger, 1983, 1995; Rumberger & Larson, 1998; Teachman et al., 1996). However, one recent study found that the distribution of two-parent families did not increase the likelihood of dropping out apart from its effects on income loss (Pong & Ju, 2000).

Until recently, there has been relatively little research that has attempted to identify the underlying processes through which family structure influences dropping out. The powerful effects of parental education and income are generally thought to support human capital theory. According to human capital theory, parents make choices about how much time and other resources to invest in their children based on their objectives, resources, and constraints, which in turn affect their children’s tastes for education (preferences) and cognitive skills (Haveman & Wolfe, 1994). Parental income, for example, allows parents to provide more resources to support their children’s education, including access to better quality schools, after-school and summer school programs, and more support for learning within the home.

Sociologist James Coleman (1988) argued that human capital (parental education) and financial capital (parental income) were insufficient to explain the connection between family background and school success. He argued that social capital, which is manifested in the relationships parents have with their children, other families, and the schools, also influences school achievement independent of the effects of human and financial capital. Although Coleman relied on indirect measures of social capital (e.g., family structure) in his research, more recent studies with more direct measures of family relationships have confirmed that strong relationships between students and parents reduce the odds of dropping out of school (McNeel, 1999; Teachman et al., 1996). Social capital actually represents one of a larger research literature on the role of families in promoting student achievement, including parental involvement in schools.

**FIGURE 3**

The Influence of Context on Adolescent Development over Time

- The Larger Social Structure
- Family
- School
- Neighborhood
- Political
- Economic
- Academic

Source: Jessor (1993, Figure 2)
School Factors

It is widely acknowledged that schools exert powerful influences on student achievement, including dropout rates. But demonstrating the influence of schools and identifying the specific school factors that affect student achievement presents some methodological challenges. The biggest challenge is disentangling the effects of student and family background from the effects of school factors. Recent developments in statistical modeling have allowed researchers to estimate school effects more accurately after controlling for the individual background characteristics of students (Lee, 2006; Raudenbush & William, 1995).

The overall influence of schools on dropping out is illustrated in Figure 4. The left panel shows the estimated tenth-grade dropout rates for a sample of 247 urban and suburban high schools in 1990. The median dropout rate is 6.2 percent, which means about four out of every 10 tenth-grade students dropped out of the "average" high school in the sample. However, the dropout rates for individual schools varied from less than 2 percent to over 40 percent. At least some of that variability, however, is due to differences in the background characteristics of students. The right panel shows tenth-grade dropout rates after adjusting for differences in the background characteristics of students. Although the overall dropout rates remain the same, the adjusted dropout rates still show widespread differences among schools. This suggests that schools influence dropout rates.

But what factors account for these differences? Four types of school characteristics have been shown to influence student performance: 1) student composition, 2) resources, 3) structural characteristics, and 4) processes and practices. The first three factors are sometimes considered as school inputs by economists and others who study schools because they refer to the "inputs" into the schooling process that are "clearly given" to a school and therefore not alterable by the school itself (Hanushek, 1989). The last factor refers to practices and policies that the school does control and thus can be used to judge a school's effectiveness (Shavelson, McDonnel, Oakes, & Carey, 1987). Yet all the characteristics of schools could be altered through policy.

Student Composition: Student characteristics not only influence student achievement at an individual level, but also at an aggregate or social level. That is, the social composition of students in a school can influence student achievement apart from the effects of student characteristics as an individual level (Cawstrom, 1992; Juska & Mayer, 1990). Several studies have found that the social composition of schools predicts school dropout rates even after controlling...
ling for the individual effects of student background characteristics (Bryk & Thum, 1989; Mayer, 1991; McNeal, 1997b; Rumberger, 1995; Rumberger & Thomas, 2000).

School Resources: There is currently considerable debate in the research community about the extent to which school resources contribute to school effectiveness (Hanushek, 1994, 1997; Hegyes, Lame, & Gretenhal, 1994). Several studies suggest that resources influence school dropout rates. These studies found that the pupil/teacher ratio had a positive and significant effect on high school and middle school dropout rates even after controlling for a host of individual and contextual factors that might also influence these rates (McNeal, 1997b; Rumberger, 1995; Rumberger & Thomas, 2000). One of these studies found that the higher the quality of the teachers as perceived by students, the lower the dropout rate, while the higher the quality of teachers as perceived by the principal, the higher the dropout rate (Rumberger & Thomas, 2000).

School Structure: There is also considerable debate in the research community about the extent to which structural characteristics (e.g., size, location), particularly type of owned (public, private), contribute to school performance. This issue has been most widely debated with respect to one structural feature—public and private schools (Bryk, Lee, & Holland, 1993; Chubb & Moe, 1989; Coleman & Hoffer, 1987). Although widespread achievement differences have been observed among schools based on structural characteristics, what remains unclear is whether structural characteristics themselves account for these differences or whether they are related to differences in student characteristics and school resources often associated with the structural features of schools. Most empirical studies have found that dropout rates from Catholic and other private schools are lower than dropout rates from public schools, even after controlling for differences in the background characteristics of students (Bryk & Thum, 1989; Coleman & Hoffer, 1987; Feua & Schwab, 1993; Neal, 1997; Rumberger & Thomas, 2000; Sandefur & Knuttau, 1995). Yet empirical studies have also found that students from private schools typically transfer to public schools instead of or before dropping out, meaning that student trajectories in private schools are not statistically different than turnover rates in public schools (Lee & Burkam, 1992; Rumberger & Thomas, 2000). School size also appears to influence dropout rates both directly (Lee & Burkam, 2003; Rumberger & Palardy, 2004; Rumberger & Thomas, 2000) and indirectly (Bryk & Thum, 1989), although the largest direct effect appears to be in low-SES schools (Rumberger, 1995). This latter finding is consistent with case studies of schools with effective dropout-prevention programs, which suggest that small schools are more likely to promote the engagement of both students and staff (Weisberg et al., 1989).

School Policies and Practices: Despite all the attention and controversy surrounding the previous factors associated with school effectiveness, many people believe that the area of school processes holds the most promise for understanding and improving school performance. Several studies found academic and social climates—as measured by school attendance rates, students taking advanced courses, and student perceptions of a fair discipline policy—predict school dropout rates, even after controlling for the background characteristics of students and the resource and structural characteristics of schools (Bryk & Thum, 1989; Rumberger, 1995; Rumberger & Palardy, 2004; Rumberger & Thomas, 2000). Another study using one of the same datasets but different sets of variables and statistical techniques found no effect of academic or social climate on high school dropout rates, after controlling for the background characteristics of students, school composition, school resources, and school structure (McNeal, 1997b). Two more recent studies found that school social capital—as reflected in positive relationships between students and teachers—reduced the risk of dropping out, especially among high-risk students (Conger & Hoeve, 2001; Lee & Burkam, 2003).

Current research literature on school dropouts suggests two ways that schools affect student withdrawal. One way is indirectly, through general policies and practices that are designed to promote the overall effectiveness of the school. These policies and practices, along with other characteristics of the school (student composition, size, etc.), may contribute to voluntary withdrawal by affecting conditions that keep students engaged in school. This perspective is consistent with several existing theories of school dropouts and departure that view student disengagement as the precursor to withdrawal (Flinn, 1989; Weisberg et al., 1989). Another way that schools affect turnover is directly, through explicit policies and conscious decisions that cause students to involuntarily withdraw from school. These rules may concern low grades, poor attendance, misbehavior, or being over age, which can lead to suspensions, expulsions, or forced transfers. This form of withdrawal is school initiated and consistent with the student initiated form mentioned above. This perspective considers a school's own agency, rather than just that of the student, in producing dropouts and transfers. One metaphor that has been used to characterize this process is discharge: "students drop out of school, schools discharge students" (Biddle, 1999, p. 231). Several studies, mostly based on case studies, have demonstrated how schools contribute to students' involuntary departure from school by systematically excluding
and discharging "troublemakers" and other problematic students (Bowdzinich, 1993; Fine, 1991; Ridki, 1990).

One specific practice that schools can use to influence dropout rates is the requirement that students pass a test in order to receive a diploma (National Research Council, 1999). Such requirements can be set by high schools them- selves, but more typically they are set by school districts and states. Historically, some schools and districts required students to pass a so-called minimum com- petency exam. More recently, many states have instituted high school exit ex- ams that test students' proficiency in a number of state-established academic standards. A number of studies have examined the impact of such testing poli- cies on the likelihood of dropping out (Castera, 1989; Griffin & Hendron, 1996; Jacob, 2001; Lillard & DeCirca, 2001; Muller, 1998). The results of these studies are quite mixed: some found that such requirements increased the likelihood of dropping out (Castera, 1989; Lillard & DeCirca, 2000); some found no impact on dropping out (Muller, 1998); and some found differential effects—on finding that they only increased dropout rates among poorer stu- dents (Griffin & Hendron, 1996) and another finding that they only increased dropout rates among highest-ability students (Jacob, 2001).

Community and Peers

In addition to families and schools, communities and peer groups can influence students' withdrawal from school. Several studies have shown that having friends or siblings who have dropped out increases the likelihood of dropping out (Carson, 1998; Ellendorf & Chaunheidland, 1997; Rumberger & Thomas, 2000). Research has also shown that having high-achieving friends can reduce the likelihood of dropping out of school (Kear, Cohen, & Brook, 1998).

There is at least some empirical evidence that differences in neighborhood characteristics can help explain differences in dropout rates among communi- ties apart from the influence of families (Brooks-Gunn, Duncan, & Abes, 1993; Clark, 1992; Czaja, 1991; Ensminger, Lomkin, & Jacobson, 1996; South, Barnett, & Lott, 2003). Czaja (1991) further argues that there is a threshold or tipping point on the quality of neighborhoods that results in particularly high dropout rates in the lowest-quality neighborhoods. But Clark (1992), using more recent data, found no evidence of a tipping point, but did find that the odds of a boy dropping out were increased substantionally as the neighbor- hood poverty rate increased from zero to 5 percent. Moreover, two studies found that living in a high-poverty neighborhood was not necessarily detrimental to completing high school, but rather living in an affluent neighborhood was beneficial to school success (Brooks-Gunn et al., 1995; Ensminger, Lomkin, & Jacobson, 1996).

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While these studies find that communities do influence dropout rates, they are unable to explain how they do so. Poor communities may influence child and adolescent development through the lack of resources (playgrounds and parks, afterschool programs) or negative peer influences (Brooks-Gunn et al., 1997; Hallinan & Williams, 1990; Wills, 1987). Community residence may also influence parenting practices over and above parental education and in- come (Klebanov, Brooks-Gunn, & Duncan, 1994). Finally, students living in poor communities may also be more likely to be exposed to negative peer influe- nces, such as having dropouts as friends, which increase the likelihood of drop- ping out of school (Carson, 1998; South, Baumber, & Lott, 2003). Yet the impact of peers varies among youth, depending on both family circumstances and their own characteristics (Crowder & South, 2003; Farmar et al., 2003). Another way that communities can influence dropout rates is by providing employment opportunities both during and after school. Relatively favorable employment opportunities for high school dropouts, as evidenced by low neighborhood unemployment rates, appear to increase the likelihood that stu- dents will drop out, while more favorable economic benefits of graduating, as evidenced by the higher salaries of high school graduates compared to dropouts, tend to lower dropout rates (Bickel & Papageorgiou, 1988; Clark, 1992; Rumberger, 1983).

EXPLAINING RACIAL AND ETHNIC DIFFERENCES IN DROPOUT RATES

One of the most challenging educational issues facing the United States is un- derstanding and solving the persistent disparities in achievement among racial and ethnic groups. While much of the focus on this issue has centered on stu- dent achievement as measured by grades and test scores (e.g., Jencks & Phillips, 1998; Steinberg, Dornbusch, & Brown, 1992), there has been considerable at- tention to understanding and explaining differences in dropout rates as well (Fernandez, Pasek, & Hinojosa-Nakamoto, 1989; Ogbo, 1989). Two general approaches have been used to explain differences in dropout rates among racial and ethnic groups. The first approach is based on the idea that differences in dropout rates and other measures of educational achieve- ment can be explained largely by differences in resources and by human and so- cial capital frameworks that suggest these factors affect achievement simi- larly for all groups. Those groups that lack these resources, in this approach, are more at risk for poor outcomes. This approach was used by the National Ra- search Council Panel on High-Risk Youth, which used its study on the high- risk settings of family, school, and community to explain the poor outcomes of
high-risk and minority students (National Research Council, 1993). Indeed, the family, school, and community conditions for racial and ethnic minorities in the United States are generally much worse than for the white majority. To take but one example, child poverty rates for blacks and Hispanics are more than twice as high as poverty rates for whites (U.S. Department of Education, 2003, Table 21). At a result, minority students are more likely to attend high-poverty schools that have fewer resources and poorer learning environments (U.S. Department of Education, 1997). Several empirical studies of dropouts have found that at least half of the observed differences in dropout rates between racial groups can be attributed to differences in family and community characteristics (Fernandez et al., 1988; Rumberger, 1983; Veluz, 1989).

Another study found that up to half of the observed differences in dropout rates between whites and minorities would be reduced if racial groups attended schools with similar racial and socioeconomic compositions (Mayer, 1991).

The second approach is based on the idea that differences in resources and conventional theories are insufficient to explain differences in achievement among racial and ethnic groups. In particular, critics of the first approach argue that it fails to explain why some minority groups with similar levels of socioeconomic background succeed while other groups do not. Instead, they argue that the processes of cultural—particularly cultural differences in values, attitudes, and behaviors—help explain why some racial and ethnic minorities are successful in U.S. schools and others are not.

Ogbu (1989, 1992), one of the best-known proponents of the sociocultural perspective, argues that minorities can be classified into two groups: 1) voluntary minorities, who came to the United States by their own choosing (e.g., European Americans and Asian Americans); and 2) involuntary minorities, who were brought into the United States against their will, either through immigration or domination (e.g., African Americans and early Mexican Americans). Voluntary and involuntary minorities view school success very differently: "Voluntary minorities do not perceive learning the attitudes and behaviors required for school success threatening their own culture, language, and identities, [while] . . . involuntary minorities do not seem to be able or willing to separate attitudes and behaviors that result in academic success from those that may result in linear acculturation or replacement of their cultural identity with white American cultural identity." (Ogbu, 1992, pp. 9-10).

Although Ogbu’s perspective offers an appealing explanation of minority groups’ differences in achievement, empirical support for this perspective is limited (Ainsworth-Daniell & Dowsey, 1998; Cook & Ludwig, 1997; Fabes, Grobe, Shiehchi, & Shrum, 1996; Gibson, 1997; Marette-Bouchard, 1986; Mickelson, 1990).

CONCLUSION

Understanding why students drop out of school is a difficult if not impossible task because, as with other forms of educational achievement, it is influenced by an array of individual and institutional factors. Nonetheless, a review of the theoretical and empirical literature does yield some useful insights into the nature of this problem and what can be done about it. First, dropping out is not simply a result of academic failure, but rather, often results from both social and academic problems in school. Second, these problems often appear early in students’ school careers, suggesting the need for early intervention. Third, these problems are influenced by a lack of support and resources in families, schools, and communities. These findings suggest that reducing drop out rates will require comprehensive approaches both to help at-risk students address the social and academic problems that they face in their lives and to improve the at-risk
settings that contribute to these problems. Does the United States have the capacity and political will to reduce dropout rates and eliminate disparities in dropout rates among racial and ethnic groups?

(For the second part of this research review, see ch. 11.)

NOTES

1. The terms to which general theories of student achievement can be used to explain the specific phenomenon of school dropouts is exactly questioned. Yet theories that may be useful in explaining differences in achievement outcomes, such as test scores or grades may not necessarily be useful in explaining why some students drop out of school, especially to the mirror that dropping out is unrelated to academic achievement, at dropout characteristics suggest.

2. Often the factors associated with dropping out are identified as “risk factors” because they denote characteristics of the individual or environment associated with an increased risk of dropping out. But some scholars have pointed out the need to also identify “protective factors” that promote successful development and buffer the effects of risk factors (e.g., Jones, 1993; National Research Council, 1993).

3. Because engagement concerns both the academic and social aspects of schooling, it provides a more comprehensive concept than some others, such as instrument or effort, that focuses on the academic aspect of schooling. For an in-depth discussion of these two concepts, see National Research Council (2004, ch. 2).

4. As Potter (1998) notes points out, in using the concept of social capital, it is important to distinguish between the relationships themselves and the access to resources that such relationships provide.

5. Our specific example is the growth in “zero tolerance” (automatic discharge) for violations of school safety rules (Shah & Peterson, 1999).

6. Recent reforms may be ushering in these differences. For example, California’s class-size education programs has increased the disparities in the proportions of fully credentialed teachers between high- and low-poverty schools (Scherer & Bolamstijn, 2000, Figure 3.12).

7. Other scholars have also found cultural differences in achievement motivation (Kao & Tinsley, 1999; Soto-Orozco & Soto-Orozco, 1999).

REFERENCES


