

Chapter 5

What No Child Left Behind Means for College Access

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In 2001, the federal government passed a sweeping reform of American elementary and secondary education known as the No Child Left Behind Act (NCLB). Although long and complex, NCLB embodies a fairly simple policy premise: that accountability for schools will produce better outcomes for students. In particular, NCLB requires that schools close the achievement gaps between majority and minority students. To accomplish this goal, the NCLB approach to accountability—unlike state and local policy efforts to end “social promotion” or promote minimum assessment standards for high school graduation—focuses on changing the behavior of teachers and principals and the organization of schools and districts where necessary. Furthermore, in a departure from previous iterations of the Elementary and Secondary Education Act (ESEA), NCLB requires schools to meet proficiency targets or face real sanctions, including the threat of restructuring and eventual closing.

The consequences of NCLB are most often thought of in terms of achievement and attainment in elementary and secondary education. In this chapter, however, we assess what NCLB might mean for *college access* by examining existing evidence of the effects of school-based accountability on college participation. While NCLB explicitly aims to effect change in K–12 education, it may have longer-term outcomes, particularly for postsecondary education and labor force participation (Educational Policy Institute, 2005). For example, organizational and instructional reforms in schools—crucial to the success of accountability—are also likely to have an effect on how well students are prepared to access and succeed in college. Thus, while the success of the legislation is currently measured in terms of elementary and secondary student test scores, we posit that NCLB might also be assessed in a way that accounts for its impact on later student outcomes, particularly in higher education.

We begin with a summary of research on the important factors contributing to student participation and success in college. Next, we discuss the rubric of accountability under NCLB and compare it with the way in which accountability was previously implemented at the state and federal levels. We then consider studies on the longer-term

outcomes of school-level accountability, focusing on examinations of the effects of academic pressure and high-stakes testing.¹ We conclude by assessing what is known—and what remains ripe for future study—about the implications of NCLB for college access.

NCLB was passed in 2001 and has been fully implemented only since the beginning of the 2003 school year. Research on the effects of NCLB-style accountability on student outcomes, particularly outcomes of interest to higher education, is therefore limited. For this reason, we cast a wider net in this review, examining initial evidence on NCLB along with evidence from other state and district accountability systems that have been in place for a number of years.²

WHAT MATTERS FOR COLLEGE ACCESS

Researchers from a multitude of fields and academic disciplines have examined factors promoting the transition to college.³ The majority of such studies focus on the importance of students' academic, financial, and social preparation (Goldrick-Rab, Carter, & Wagner, in press; Louie, in press). From this body of research, we know that students who engage in more rigorous high school coursework (including more math, science, and foreign language), have higher grade-point averages, and score higher on tests are more likely to go on to college (Adelman, 1999; Cabrera, Burkum, & La Nasa, 2003; Nora & Rendon, 1990; St. John, 1990). Students who remain continuously enrolled without dropping out are also more likely to make a smooth transition to college immediately after high school (Bozick & DeLuca, in press). Therefore, providing all students the opportunity to engage in upper-level coursework and providing support to perform well in those classes and remain in school will likely enhance college participation.

Furthermore, students whose parents receive information about college tuition and financial aid early in the schooling process are also more likely to make a smooth transition to college (Avery & Kane, 2004; Flint, 1993, 1997; Horn, Chen, & Chapman, 2003; Hossler & Vesper, 1993; Orfield, 1992; St. John, 1990; Stage & Hossler, 1989; Steelman & Powell, 1991). Middle- and upper-class students are more likely to gain information about paying for college from a multitude of sources (i.e., guidance counselors, siblings, parents, friends), while lower-income students whose parents did not attend college are more likely to rely heavily on school-based counseling alone (Conklin & Dailey, 1981; McDonough, 1997). Thus, involving teachers acquainted with college admissions and financial aid processes in educating *all* students (not only those on the "college track") in the early school years should also enhance college access.

Finally, students who are engaged in college preparation programs and receive adequate counseling are more likely to participate in college (Avery & Kane, 2004; Fitzsimmons, 1999; Tierney & Jun, 2001). This is in part because such interventions build students' social and cultural capital, helping them better negotiate the higher education system (McDonough, 1997; Persell & Cookson, 1985). Schools that involve a network of adults closely connected to students and committed to their immediate success

as well as their success later in life therefore appear more likely to produce greater numbers of students going on to college.

Yet despite having identified many factors that contribute to college participation, researchers and practitioners have not yet learned how to successfully close all of the racial, ethnic, and income gaps in college participation. Nearly two thirds (65%) of White students 16–24 years of age were enrolled in college in 2001, while smaller percentages of Blacks (55%) and Hispanics (50%) had made that transition (Bowen, Kurzwil, & Tobin, 2005). Moreover, upper-income students remain far more likely than low-income students to enroll in college: Slightly more than half (54%) of students from families in the bottom income quartile are enrolled in college, as compared with more than four fifths (82%) of students in the top quartile (Bowen et al., 2005). These disparities are similar to, and in some cases even larger than, the achievement gaps found in K–12 education.

The persistence of these gaps raises questions about the importance of understudied contributors to college participation, such as the role of school characteristics and, in particular, state-, local-, and school-level policies. While economists of education have examined the role of tuition and financial aid policies (e.g., Heckman & Krueger, 2004; Kane, 1999; Schwartz, 1986) and sociologists have examined the effects of school structure (e.g., Lee & Burkum, 2000; Muller & Schiller, 2000, 2005), studies of the effects of K–12 reforms on college access are uncommon. This omission in the research literature flows from the absence of such discussions in educational policy and practice; as Kirst and Venezia (2004), Conley (2005), and others have noted, the American education “system” rarely thinks systematically. Thus, policies enacted at one level are thought to create effects only at that level, when in fact there is dynamic interplay across the different sectors of education. Acknowledging these connections, we ask whether school-level accountability under NCLB, intended to close gaps in K–12 education, might also work to close gaps in college participation.

SCHOOL ACCOUNTABILITY: THEN AND NOW

Despite the current disconnections among elementary, secondary, and postsecondary systems in this country, public school accountability and higher education have been linked throughout American educational history. The advent of secondary education in the late 19th and early 20th centuries, for example, led many states and districts to adopt examinations to determine eligibility for high school admissions, examinations that were also used to shape curricula and improve elementary schools (Mazzeo, 2000). With the expansion and differentiation of the American system of colleges and universities in the middle part of the 20th century, elite institutions identified a need to better differentiate between college applicants and helped spur the development of the SAT and ACT. Over time, performance on these tests became a widely used benchmark of student, school, and school system quality (Hoffer, 2000). In 1983, the federal report *A Nation at Risk*—commissioned in part as a response to concerns about declining SAT scores—explicitly mentioned the need to

improve college participation: “Standardized tests of achievement . . . should be administered at major transition points from one level of schooling to another and particularly from high school to college” (cited in Nelson, 2005a, p. 230). During the decades following the publication of *A Nation at Risk*, many states raised standards for high school graduation and introduced minimum competency testing graduation requirements and exit examinations, in part to hold schools accountable for college outcomes (Dee, 2003).

Yet historically there have been few links between school accountability and higher education in federal policy. Indeed, school accountability at the federal level is a relatively recent phenomenon. While “federal aid and federal expectations for accountability went hand in hand” (Nelson, 2005b, p. 4) subsequent to the initial passage of ESEA in 1965, it was not until the Hawkins-Stafford Amendments of 1988, part of the Title I reauthorization, that federal school aid was directly tied to evidence of improved student achievement (Nelson, 2005a). Parallel to these developments, a number of states and districts—responding to increased concerns with educational performance at the state and local levels—began implementing more intensive forms of school-based performance accountability for the first time (Mazzeo, 2001; Nelson, 2005a, 2005b). By 2000, 39 states had implemented school-level accountability policies (Hanushek & Raymond, 2003; Mazzeo, 2001).

This “new accountability,” as Susan Fuhrman (1999) and others (Carnoy, Elmore, & Siskin, 2003) have labeled it, focuses squarely on student performance and places the locus of responsibility for performance at the school rather than district level. The new accountability also involves the use of public reporting of student outcomes, rewards, and sanctions to motivate schools to change their curriculum and instructional practices (Fuhrman, 1999; McDonnell, 2004; Mazzeo, 2001). It is important to note that these policies target elementary and to a lesser extent secondary schooling—the links between school performance and college participation identified in *A Nation at Risk* are noticeably absent from contemporary school accountability in the states.

The No Child Left Behind Act of 2002 was explicitly built upon the premises of the “new accountability.” NCLB, however, goes beyond both previous iterations of ESEA and the accountability policies of many states by attaching significant “stakes” to school-level performance, including the use of public school choice and the threat of curriculum changes, restructuring, and even closure for schools that continue to fail to meet accountability targets. To avoid federal sanctions, schools must make what is called adequate yearly progress (AYP) toward proficiency standards.⁴ These targets rise incrementally each year until all students are expected to be proficient in reading and mathematics by the 2013–2014 school year. When a school fails to make AYP, it sets in motion the heart of the legislation: the provisions for school improvement and accountability. NCLB includes progressively more serious consequences for districts and schools that fail to make AYP for 2 or more years.

In setting out its accountability provisions, NCLB embodies two key starting premises that underlie much of the “new accountability” (Carnoy et al., 2003; Fuhrman, 1999). First, NCLB embraces the belief that federal accountability measures are sufficiently

powerful and salient to influence the behavior of states, schools, and districts and to motivate them to improve student proficiency toward standards and close achievement gaps. Second, as designed, NCLB assumes that schools have or can easily develop the capability to “identify, select, and implement policies and practices that will improve their performance” (Goertz & Massell, 2005, p. 123). School improvement, in short, is defined in federal law as primarily an issue of creating urgency and the will to improve, with accountability the primary mechanism of instilling these changes. School accountability under NCLB seeks to improve school performance through three (successively intensive) stages of intervention: identification, capacity building, and sanctions.

The first stage of school accountability under NCLB is identification. When schools miss their proficiency targets (AYP) for 2 consecutive years, they are labeled as “in need of improvement.” The theory here is that schools identified as needing improvement will be motivated to improve as a result of the public designation of their performance weaknesses. This is consistent with traditional state approaches to school accountability in which publicly reported test score data are used to identify student performance gaps and to “shame” schools into doing better and avoiding embarrassing public scrutiny (Mazzeo, 2001; McDonnell, 2004).

Yet, identification at its best merely raises the urgency of student performance—ultimately, schools must still find ways to improve instruction if they are to meet proficiency benchmarks. As Elmore (2003a, 2003b) and others (Massell, 1998; O’Day, 2002) have noted, improving instruction is less a matter of will than skill; inherent to the success of accountability is the building of school “capacity.” Capacity is the ability “to translate high standards and incentives into effective instruction and strong student performance” (Massell, 1998, p. 1). Capacity includes the skill and knowledge of teachers and principals, in addition to a school community’s willingness to diagnose problems and develop instructional improvement strategies (Abelmann & Elmore, 1999; Elmore, 2003a, 2003b) that can influence whether a school sustains improvement in the long run.⁵ Unfortunately, as noted earlier, NCLB addresses capacity issues only marginally, primarily by requiring that schools “in need of improvement” develop an improvement plan that sets performance targets by academic subject and devote a portion of their Title I funds for professional development and teacher mentoring. NCLB does not provide states with additional resources (money or expertise) to build school capacity, although it does suggest that states offer their own interventions to help low-performing schools identified under the law (Mazzeo & Berman, 2003). Consistent with the premises of the new accountability, NCLB assumes that states, districts, and schools will figure out ways to improve capacity in response to federal pressure.⁶

Accountability systems, it has been said, “have no teeth” without penalties for low achievement (Hanushek & Raymond, 2005; Nelson, 2005a, 2005b), and thus sanctions are a crucial part of the NCLB school accountability model. NCLB includes progressively more serious consequences for districts and Title I schools that fail to make AYP for 2 or more years. For example, students attending schools that miss their performance targets for 2 consecutive years must be offered the option of moving to a higher-performing public school within the district. After 3 years of missed performance targets, parents of

children in these schools must be offered the option of using federal Title I dollars to purchase supplemental educational services from an approved provider on the open market. When a school fails to meet its proficiency targets for 4 consecutive years, it becomes subject to “corrective action,” which requires the district to formulate an improvement plan for the school. That plan could include replacing staff, decreasing management authority at the school level, appointing outside experts to advise the school, lengthening the school day or year, and restructuring the school. Under restructuring, the district—working with the school—has up to 1 year to select one of five options: (a) closing the school and reopening it as a charter school, (b) replacing all or most of the school’s staff, (c) hiring a private management company to manage the school, (d) placing the school under state management or receivership, or (e) restructuring the school’s governance in some other way. Schools that fail to meet AYP for a sixth consecutive year must implement their restructuring plan the next academic year (Mazzeo & Berman, 2003).

In summary, school-level accountability under NCLB works through successive stages—identification, capacity building, and sanctions—to improve school quality. The underlying assumption of the law is that stronger accountability will produce greater teacher effort and school attention to performance problems—either in the short term or in the long term—ultimately enabling all schools to meet proficiency targets. Although the law is weaker in the area of capacity measures, it does recognize that instructional improvement is central to improved student learning and attempts to leverage Title I dollars toward instructional reforms and professional development designed to build school capacity.

However, will identification, capacity building, and sanctions lead schools to produce greater numbers of college students? The answer must take into account two limitations of the law. First, NCLB does not require states to hold high schools accountable for much, nor does it establish high school graduation requirements. This may change in the future (see discussion in the concluding section of this chapter), but for now NCLB focuses on elementary and middle schools. Second, extending the first point, the new federal law does not hold schools accountable for college participation rates. As Michael Kirst (2005) has observed, there is no governance structure connecting K–12 and higher education, and as a result there is no mechanism by which policies such as NCLB could hold schools accountable for students’ college outcomes. Thus, while the U.S. Department of Education’s 2002–2007 strategic plan includes enhancing access to college among its goals and one of the four principles of NCLB, “raising academic achievement and accountability,” is explicitly designed to strengthen the preparation of college-bound students, schools are not held accountable for whether or not these goals are achieved. Moreover, ESEA and its postsecondary counterpart, the Higher Education Act, have remained distinct policies throughout most of their histories (Stein, 2004). As a result, neither K–12 schools nor higher education institutions are explicitly held responsible for the achievement and attainment of students during the critical years of the transition to college (i.e., 10th grade to freshman year of college).

Therefore, while it is reasonable to anticipate some college-related outcomes of NCLB (based on the policy’s rhetoric), the law’s effects “will be highly dependent on

the way it is administered by the states and on the specific strategies they devise to promote improvement” (West & Peterson, 2003, p. 9). In other words, only if school-level accountability serves to improve the skills that are important for college readiness (thus increasing the value of a high school diploma) might we expect to see changes in college participation. In the next section, we examine this very issue, exploring the potential effects of NCLB implementation on college participation based on a review of similar policies undertaken by states and districts in the past decade or so.

COLLEGE OUTCOMES OF SCHOOL-LEVEL ACCOUNTABILITY

NCLB holds schools, rather than students themselves, accountable for improved student achievement. Arguably, NCLB’s shift to school-based rather than student-based accountability was intended to lead policymakers and practitioners to focus more on the importance of school actions in promoting student success rather than compensating for specific student “deficiencies” (Stein, 2004). We posit that such a shift might work to increase college participation if at least two criteria are met: (a) Outcome-driven student assessment, tied to school accountability, creates a greater “academic press” in schools, reducing tracking and eliminating a climate of low expectations, and (b) high-stakes school accountability serves to raise the achievement levels of all students. These two criteria are interconnected in important ways, since accomplishing the former may lead to the latter.⁷ Thus, in this section we review the extant bodies of literature on the role of “academic press” and “high-stakes testing” in promoting student achievement.

Increasing School Capacity and Enhancing “Academic Press”

A large body of literature, particularly in the sociology of education, has documented the negative effects of a form of curricular organization known as “tracking” on student achievement, particularly the achievement of students of low socioeconomic status (e.g., Carbonaro, 2005; Gamoran, 1992; Hallinan, 1994; Lucas & Good, 2001; Oakes, 1985). Tracking and its close cousin “ability grouping” act to sort students into various curricular forms and sequences (Dauber, 1996; Gamoran, 1992). Tracks are rarely created equal, and students’ ascriptive characteristics are frequently found to correlate with placement in lower tracks (Entwisle, Alexander, & Olson, 1997; Gamoran, 1992; Hallinan, 1994; Lucas & Good, 2001). Such differential placement reflects a lower set of teacher and principal expectations for certain students, helping to reinforce the lower achievement of those students (Oakes, 1985). Also reinforcing lower levels of achievement in the lower tracks is a lack of academic press. Academic press is a normative focus on success and high standards that develops as “schools raise their expectations for students, assume responsibility for students’ learning, and adopt specific policies and practices” (Shouse, 1997, p. 61; see also McDill, Natriello, & Pallas, 1986; Murphy, Weil, Hallinger, & Mitman, 1982). Closely connected to the notion of academic press is the concept of “authentic intellectual work.” Defined as the “construction of knowledge

through the use of disciplined inquiry [that produces] discourse, products, or performances that have value beyond school" (Newmann, Bryk, & Nagaoka, 2001, p. 14), this form of teaching is less common in disadvantaged schools but has been shown to significantly increase test scores, even in the case of disadvantaged students (Newmann, Lopez, & Bryk, 1998).

NCLB, with its clear focus on holding schools accountable for raising student achievement, may serve to enforce an organizational culture of high standards wherein authentic intellectual work could take place. As noted by Shouse (1997), "while nearly every principal will claim student achievement to be an important goal, it seems reasonable to expect variation in the degree to which their school organizational cultures are actually driven by academically oriented beliefs, values, and norms" (p. 60). A federal policy with a fiscal mandate would seem to reduce such variation. While some might object to such a culture, which could logically compromise other goals (e.g., building student self-esteem), Shouse argues that a "strong academic press serves as a prerequisite for creating . . . communality in schools" (1997, p. 60).

Academic press is a strong indicator of student achievement, particularly in high school (Bryk, Lee, & Holland, 1993; Lee, Smith, Perry, & Smylie, 1999; Shouse, 1997). Importantly, the largest effects have been identified in schools with more disadvantaged students (Shouse, 1997). Schools with higher levels of academic press channel *all* students into higher-level courses (Oakes, 1985). At least one study suggests that students increase their expectations for college in response to high track placement (Alexander, Bozick, Entwisle, Dauber, & Kerr, 2005).

Moreover, there is some evidence that altering the academic context by increasing academic press will also alter the social context of students' friendships. Frank and his colleagues (Frank, Muller, & Schiller, 2005) contended that students' "local position" in their school (rooted in their course-taking patterns) partly determines who they will befriend, in that students tend to create new friendships with others in their same position. Students who are pushed to take higher levels of mathematics, for example, will thus stand to benefit not only in terms of the quality of their high school transcripts but also in terms of their social capital—they are more likely to have friends who are also academically pressed and more likely to be college bound. According to Shouse, "as schools become more output-driven, they also become better able to generate among their members the type of normative social current necessary for meaningful academic success" (1997, p. 77). Put another way, there does appear to be value in "a relentless focus on the academic core" (Haycock, 2001, p. 11). While some contend that such a focus requires increased funding, others argue that even schools with few fiscal resources are capable of this focus, a claim supported by the significant variation in academic press among schools serving disadvantaged students (Haycock, 2001; Shouse, 1997). Thus, to the extent that state and federal policies work to increase academic press—particularly in high schools—students from all backgrounds may be better prepared for college.⁸

Of course, to increase academic press a school's capacity to deliver higher-level instruction must also be improved. This is a tall task for a single policy: In other words, NCLB must work to not only increase standards in all schools for all students but, as noted earlier, increase the ability—the capacity—of schools, districts, and states to enforce those standards and implement instructional improvements. Evidence on this front is mixed. In a comprehensive review of high school accountability reforms in 36 schools in six states, Gross and Goertz (2005) consistently found that state accountability policies did increase academic press and urgency around instructional improvement. What these systems failed to do in most schools was improve the quality of decision making around curriculum and instruction, school organization, and teacher professional development. Very few of the schools responded in ways that were systematic and coherent, incorporated new ideas and information from outside the school, or made use of research-based practices. In making sense of these findings, Goertz and Massell (2005, p. 125) suggested that even the most powerful accountability systems can influence only the urgency, or “level of response,” of schools; they are able to do little, by themselves, to improve the quality of responses or the extent to which decisions are well matched to the problems and needs of schools and their staffs.

Some states have attempted to address these capacity and decision-making problems by providing direct technical assistance to schools. Such strategies vary, but most states and districts use a process that includes an initial audit or school review, development of a school improvement plan, and provision of assistance from expert educators, instructional specialists, or assistance teams (Mazzeo & Berman, 2003; Mintrop, 2003a, 2003b; O'Day, 2004). Other states and districts leverage support and assistance in an indirect way, brokering assistance from external providers such as consultants and universities or promoting the use of regional service centers that are open to all schools. In addition, some states provide significant financial resources to low-performing schools in the form of direct grants that these schools can use to hire external consultants or support improvement activities (Mazzeo & Berman, 2003).

Research on state and district school improvement strategies shows that state and district technical assistance efforts have struggled to build the capacity of low-performing schools in meaningful ways (Brady, 2003). In examining Chicago public schools' responses to being placed on probation, O'Day (2002) found that some schools improved rapidly while others lingered in the program. Initial capacity to develop improvement strategies and sustain them was a key factor in explaining the results. Elementary schools with higher initial capacity had higher “peer collaboration, teacher-teacher trust, and collective responsibility for student learning” and responded more favorably to the reform push (p. 304). Not surprisingly, schools with the lowest capacity benefited the least from district accountability policies.

Researchers suggest that such outcomes have much to do with the problems states and districts face in improving persistently low-performing schools, those schools likely to be classified as requiring “corrective action” or “restructuring” under NCLB, and schools with the greatest numbers of students at risk of dropping out or falling below

grade level. Low-performing schools often operate in chaotic and unstable environments. With high turnover of personnel, investments in capacity building and professional development are often blunted. Elmore (2003b) examined one not atypical low-performing school in which 15% to 25% of teachers turned over in the course of a single year. While such schools face multiple challenges, research suggests that they continue to underperform because most lack “internal accountability” (Abelmann et al., 1999; Elmore, 2003a, 2003b). Schools without internal accountability show little or no evidence of consistent expectations about quality of instruction or student performance; adults within these schools assign responsibility for low student performance to families and communities rather than to themselves, and resources to support student learning are managed chaotically. There is a lack of agreement on anything but the most basic expectations (i.e., student behavior and conduct) (Mazzeo & Berman, 2003). High schools that lack internal accountability, for example, often have poor advising capacities, low rates of college-preparatory course taking, and poor graduation rates (Gross & Goertz, 2005; Siskin, 2003, 2004).

Persistently underperforming schools are the most probable targets for sanctions such as “restructuring” under NCLB, including such measures as reconstitution and reopening with a new staff or, in some cases, as a charter school (Ziebarth, 2004). Yet sanctions, or the threat of sanctions, whether directed at the school, the staff, or both, also have had limited success in improving outcomes in persistently underperforming schools. Mintrop (2003a, 2003b) argues that the heightened pressure from sanctions exacerbates teacher attrition and morale problems in many of these schools. Many persistently underperforming schools are not attractive workplaces, and schools in jurisdictions with high concentrations of such schools are often staffed with large numbers of new, often insufficiently trained teachers with little commitment to stay. Likewise, principal turnover is high. Principals under the demands of an accountability process often are conduits of pressure, which contributes to unsupportive working relationships between teachers and administrators. Too much pressure can lead to greater dissatisfaction and additional turnover, as well as potential staff replacements of lower quality than the original teaching staff (Malen, Croninger, Muncey, & Redmond-Jones, 2002; Mazzeo & Berman, 2003; Mintrop, 2003b).

As a result, the consensus is that the most effective accountability systems are those that link negative and positive sanctions—pressure and support—to help schools improve (DeBray, Parson, & Avila, 2003; Fullan, 1999; O’Day, 2002; Schneider, 1997a). Initial pressure, through the threat of sanctions, creates urgency and often the initial test score gains necessary to challenge low expectations for minority and low-income students. Sanctions work best, however, when they are accompanied in their later stages by sustained efforts to build expertise and capacity in lower-performing schools.⁹

In summary, while school accountability measures with strong sanctions are likely to increase academic press, such efforts are not, alone, sufficiently likely to increase school capacity and the quality of decision making around instructional improvement to make a significant difference in longer-term student outcomes. Research on state and district

technical assistance further challenges the premise of NCLB-style accountability by illustrating the difficulty in building school capacity through accountability policies. This research does show that state and district accountability approaches that deftly balance sanctions with capacity building have produced some promising results, although research on this type of accountability is still limited. As noted earlier, NCLB itself leans more toward sanctions than capacity building; however, the states implementing the law's provisions probably vary considerably in how much emphasis they place on one versus the other. Further research on the implementation of sanctions under NCLB should help illuminate the success of these various approaches, particularly with regard to persistently underperforming schools.

The twin challenges of building school capacity while enforcing sanctions for poor performance also illustrate the importance of developing educational policies in a more systematic manner. Efforts to increase academic press in high schools would be most effectively supplemented by pressure and expectations from the higher education system itself. Moreover, the higher education system could provide needed support, helping to build school capacity through improved teacher and administrator training and professional development and through the direct involvement of faculty in school improvement at the local level. That these commonsense forms of integration between secondary and postsecondary systems do not currently exist suggests that NCLB will struggle in meeting its goal of creating significant improvements in the academic climate and performance of K–12 schools.

Longer-Term Implications of High-Stakes Testing

Will tying school accountability to the testing of students lead to greater college participation or help to close gaps in college participation? Since widespread implementation of school-level accountability is a recent phenomenon, it is difficult to know for certain. Some states have implemented accountability systems by ending “social promotion” and requiring that students pass competency examinations before progressing to the next grade, while others have implemented high school graduation exams. But these policies are examples of student-level—not school-level—accountability, since schools themselves are rarely penalized for high failure rates.¹⁰ As noted earlier, research is still limited on the effects of state and district school accountability policies. In this section, we review these studies and in particular make a distinction between policies that incentivize schools to produce gains in student performance and policies that incentivize both schools *and* students to make gains.

While school-level accountability policies have been in place in some states and districts for a decade or more, few evaluations of their effects on student outcomes have been undertaken. Much more common are studies that examine the responses of schools and teachers to such policies (e.g., DeBray et al., 2003; Sunderman & Kim, 2001). The exceptions are studies involving data from the National Educational Longitudinal Study of 1988 and the National Longitudinal Study of Schools. In one such study, Muller and Schiller (2005) examined the relationship between school-level accountability programs

implemented in states prior to 1993¹¹ (including the extensiveness of the testing) and students' mathematics course taking. Numerous studies have demonstrated that advanced mathematic coursework is a significant predictor of both college access and success (e.g., Adelman, 1999; Goldrick-Rab & Han, n.d.; Schneider, Swanson, & Riegler-Crumb, 1998); thus, if accountability were to increase math course taking, it might well affect college participation. Muller and Schiller (2005, p. 278) found that "increasing school accountability for student test performance was the only strategy that seemed to increase all students' opportunities for learning mathematics in high schools" (the comparison was with states that had only student-level accountability programs or had no programs). In other words, students in schools that were held accountable for student performance were more likely to take advanced-level math courses that would better prepare them for college and help them gain admission. These findings largely confirmed earlier work conducted by Stevenson and Schiller (1999), who found that schools in states with some form of school-level accountability (even simply the requirement to disseminate student test scores) have fewer students in the general track and more students engaged in the higher-level academic track.

In short, the research suggests that school accountability works most effectively when it is *explicitly* consequential for schools—when sanctions are attached. In one study, Hanushek and Raymond (2005) found that National Assessment of Educational Progress fourth-grade test scores in states with "consequential accountability systems" (providing scores for schools and attaching sanctions and rewards) were, on average, 0.22 standard deviations higher than scores in states without such systems (for the sake of comparison, note that the Black/White test score gap is about 1 standard deviation). Similarly, Carnoy and Loeb's (2004) analysis of data from the 1995–1996 National Assessment of Educational Progress revealed a significant positive relationship between the strength of states' accountability systems and eighth-grade students' math achievement gains, and Grissmer, Flanagan, Kawata, and Williamson (2000) observed comparable outcomes in Texas and North Carolina schools.

Florida was an early implementer of an NCLB-style system, allowing students to obtain a voucher to switch schools if their school was deemed "failing." Findings from one highly contested evaluation of the Florida A+ program (which is in many ways tougher than the federal law) showed that test scores among students at schools labeled as low performing by the state increased slightly during the year after sanctioning (West & Peterson, 2005). Such findings have received some support from previous research (e.g., Greene & Winters, 2003), while others claim that the observed effects are misattributed. In other words, it is difficult to know for certain whether the gains are due to something "value-added" about accountability itself or whether they are due to other factors beyond schools' control, such as the influence of family and peers, or the ability of students to "game" tests (Hanushek & Raymond, 2003).

Furthermore, some (e.g., John Bishop, Eric Hanushek) have argued that only when school accountability policies also provide incentives for *student* success (e.g., failure to be promoted or graduate) do they produce the kinds of achievement gains account-

ability proponents seek, especially in the case of older students who have greater capacity to control their own effort and motivation in school. Implementation of high-stakes testing in Chicago public schools has yielded some evidence supporting this idea. Beginning in 1996, students in Chicago who failed to meet test score thresholds were required to participate in summer school and retake the test again at the end of the summer. These student accountability measures were implemented in tandem with a set of complementary accountability measures in the city's underperforming schools. Under this policy, schools in which fewer than 15% of students met national norms in reading were placed on "probation" by the district. Schools on probation were required to develop improvement plans under the supervision of the central office and were also given extra resources to use toward professional development and capacity building.

Using data from Chicago, Roderick, Jacob, and Bryk (2002) estimated the achievement value-added in the so-called "gates grades"—Grades 3, 6, and 8—in which students were required to meet minimum test score cutoffs in reading and mathematics to be promoted. They estimated both aggregate effects for the district policies and variations across schools. At the district level, they found significant student performance gains in all three gates grade levels in both reading and mathematics—approximately one third to one half a year's learning gains. Effects were particularly strong for sixth and eighth graders in the second and third years of policy implementation, suggesting both implementation learning effects and the greater influence of student accountability on the behavior of older students. Strong gains were also evident in fifth grade, suggesting an impact on instructional practices among teachers in anticipation of the sixth-grade testing. In addition, gains were stronger for low-achieving students in reading than in mathematics; in regard to the latter, the authors found evidence that accountability policies widened the gap between high- and low-achieving students.

Roderick et al. also found greater effects among students in schools with the highest concentrations of at-risk students, that is, those schools likely to be under or near probation. In eighth-grade reading and mathematics, the policy effects on high-risk students were nearly two to three times higher in low-performing schools—those with predominantly African American student bodies—than in higher-performing schools. Strong policy effects were found in both schools under probation and those just above the cutoff point. One interpretation of this finding is that the cumulative pressure of school- and student-level accountability led to changes in school practices and organization that ultimately resulted in achievement gains, even in those schools with weak initial capacity. Such an interpretation runs counter to the argument of O'Day (2002) and others (Carnoy et al., 2003) that accountability policies will have only limited effects on schools with weak capacities to improve. The stronger gains for low-achieving students in reading than in mathematics, however, suggest that internal accountability and school capacity may still matter and may produce variable effects of accountability policies across types of subject matter. These interactions among accountability policies, school capacity, and student performance outcomes represent a fruitful area for future inquiry.

In another Chicago study, Miller, Allensworth, and Kochanek (2002) found that an array of secondary school performance indicators have improved since 1996 (when

accountability policies were first implemented), including increases in the percent of students completing a college course-taking sequence and the percent graduating from high school. The authors attributed these gains to improvements in the academic preparation of ninth-grade students, thus suggesting a direct link between Chicago-style accountability policies (i.e., those that link school and student accountability) and important predictors of college attendance. Similarly, Massell, Goertz, Christensen, and Goldwasser (2005) found greater academic press and response to reform in states linking strong consequences for students and schools, particularly states such as North Carolina where reforms had been in place for a number of years. Even though strong accountability did not have direct consequences in terms of teacher employment or compensation in any of the study states,¹² the authors found that teachers were sufficiently motivated by “their professional identity [and] care and concern for students,” among other factors, to strongly embrace accountability and respond effectively to improve student outcomes (p. 34).

While by no means definitive, this evidence suggests that researchers need to look more closely at the Chicago case—and other places that have combined student and school accountability—to examine whether complementary policies produce greater student performance effects than those focusing exclusively on school-level accountability. This is an important area for new research as NCLB implementation data becomes more readily available and comparisons can be made across different state and district accountability systems.

Of course, college participation will not be increased if, as many fear, school-level accountability serves to increase high school dropout rates (the reverse is also posited—that by increasing high school dropout rates, college attendance among those who remain will be increased). But a shortage of studies on the effects of school-level accountability leaves us with little evidence on this point. Student-level accountability has not been found to increase dropout significantly, a point we expand upon further in the next section.

In summary, regardless of whether the data come from a single cohort in a national sample or multiple cohorts in states or districts, there is limited evidence that school accountability, particularly as practiced under NCLB, will serve to either increase or decrease college participation. It seems far more likely that, in its current form, the accountability provisions of NCLB will have little long-term effect on college participation at all, failing to increase the odds among those already likely to attend and failing to decrease the odds among those less likely to attend. Those in the middle—the students on the margin between attending and not attending college—are those most likely to be affected, but outcomes for this group are especially unclear. As Dee reported with regard to effects of the first-wave models of accountability, “The absence of any effects on college entrance is plausible because these high school graduation requirements are less likely to be binding for the relatively high-achieving students on the margin for attending college” (2003, p. 225). In other words, bright students unsure of whether they will attend college are unlikely to be affected simply by the presence of these new requirements.

This finding raises serious questions about whether we can expect increases in student test scores to translate into improvements in longer-term college participation outcomes (Carnoy & Loeb, 2004). A lack of significant association between the two may be the result of disconnections between the tests themselves and college entry requirements. Currently, there is a significant divide between what students need to know to succeed in college and what high schools teach them (Conley, 2005). Many states do not even require the same number of math and science courses for high school graduation that their public colleges and universities require for admission (Kirst & Venezia, 2004). This could change if states use NCLB to set proficiency standards for secondary schools that are aligned with higher education admission demands—and if schools are required to meet those standards. Absent changes of this sort, simply meeting current NCLB accountability requirements might not lead to increases in rates of college attendance. In a study of Kentucky schools, Price and Reeves (2003) found that even those impoverished high schools that do succeed in meeting school accountability requirements still have lower college-going rates than otherwise similar affluent schools.¹³ In instances in which states (and teachers) rely on a single test that is not aligned with both high school graduation and college entrance standards, attention to the test outcome will more likely divert attention from the goal of college access than enhance it.

For all of these reasons, and the sheer youth of the policy itself, we should consider the conclusions of existing research on school-level accountability to be preliminary and tentative in terms of the college access outcomes of NCLB. But it should be clear from this review that there is a need for much more research on whether early effects of accountability are sustained as students move through educational systems.

WHERE ARE WE HEADED?

As noted earlier, the transition to college is a crucial moment in the lives of young adults, and yet very few educational policies or programs span it. Testing in NCLB is squarely focused on the elementary and middle grades, only one grade at the secondary level is tested, and there is no testing in other subject areas that traditionally make up a college-preparatory curriculum. This is not uncommon; historically, educational interventions have tended to be piecemeal, occurring only in one domain or another, with no consideration of the relationship between the two. However, our review suggests that, given the importance of college participation outcomes, such linkages for young adults need to be explored.

NCLB is more likely to have consequences for college participation if its reforms are extended through the secondary level. While previous iterations of ESEA devoted money to secondary schools, it was always in far lesser amounts than for elementary and middle schools (Nelson, 2005a). Recently, President Bush proposed a high school reform bill (funded at \$1.24 billion) squarely built upon the principles of NCLB, with expanded testing in reading and mathematics in Grades 9 through 11 (Samuels, 2005). Bush's plan to expand school accountability to high school was, however, rejected by a congressional subcommittee, and the proposal appears to be dead (Robelen, 2005). As of now, efforts

to extend NCLB-style accountability to high schools are more likely to come from the states. In the spring of 2005, the Bill and Melinda Gates Foundation announced a \$42 million initiative to help states reform high schools and improve college participation outcomes (Olson, 2005). In the first phase of this effort, 10 states received grants of between \$500,000 and \$1 million annually for 2 years to help them develop comprehensive plans to improve high school graduation and college-readiness rates (National Governors Association, 2005). Many of the proposals promise reforms that can potentially enhance college access, including proposals to mandate a college preparation curriculum for all students, improve mathematics and science instruction in secondary schools, and better align high school graduation and college entrance requirements (National Governors Association, 2005). As suggested by David Conley (2005), this latter reform “creates the potential for closer connections between high school and college, but only if the exams are aligned with college success standards” (p. 155). Such an alignment would enable the creation of a “p-16 system” (connecting K–12 and higher education under one governance and accountability structure) that might be more successful in implementing reforms designed to promote student success.

While promising, these state reforms are still in their infancy. In the meantime, many states continue to rely on high school exit exams as their primary high school reform tool. Currently, 20 states have exit examinations in place, and nearly half of all students in the class of 2005 were required to take such a test to graduate from high school (Warren, Grodsky, Lee, & Kulick, 2005). Yet, there is little evidence to support the idea that student-level accountability at the secondary level—in the form of high school exit exams—will result in increases in college participation or changes in high school dropout rates. Examinations of the effects of “first-wave” high school accountability models such as minimum competency examinations have not shown them to have any consistent effects on the probability of high school dropout or graduation (Bishop & Mane, 2001; Dee, 2003), analyses of national data have not identified significant effects of exit examinations on high school dropout rates (Muller, 1998; Muller & Schiller, 2000), and a recent study conducted by Warren and Jenkins (2005) produced no evidence that high school exit examinations in Florida and Texas were independently associated with increases in dropout rates.¹⁴ Indeed, we located only one study that revealed significant effects of high-stakes exit examinations on college participation; in that study, students in states with such exams were more likely (by about 2–4 percentage points) to attend college within 1 year of graduating from high school (Bishop & Mane, 2001).¹⁵

It is plausible that the tendency to find null effects of high-stakes exit exams on later attainment is attributable to the fact that students who fail the exams are themselves already less likely to go on to college. In a test of this hypothesis, Martorell (2004) used longitudinal data from the Texas Schools Micropanel and a regression-discontinuity model to distinguish between effects for students who barely passed exit exams and those who barely failed. Not surprisingly, students who barely failed the Texas exit exams were less likely to receive a high school diploma and less likely to attend college. Furthermore, failing the exit exam reduced students’ likelihood of enrolling full time and of attending a 4-year college in particular. However, an effect of failing the

exit exam on later college attainment was not identified, probably because the exam had its strongest effects on students less likely to succeed in college in the first place (Martorell, 2004).

Only when states tie curriculum-based external high school exit examinations to core content areas does student achievement appear to increase, particularly among minority students (Bishop, 1998; Bishop, Moriarty, & Mane, 2000). In fact, these forms of standards-based reform more consistently demonstrate both increased achievement *and* smaller achievement gaps (Bishop & Mane, 2004). However, this is an area that merits additional attention from researchers.

With prospects for high school reform in its future, along with amendments to be made during the next reauthorization, there is much that NCLB could mean for college access. It may function to increase academic press in schools, thus providing more students with the opportunity to engage in college-preparatory coursework and raising their expectations for college. Of course, this will occur only if capacity is significantly improved in many of our weakest schools. It may also increase student test scores, at least in the early years of schooling. However, the research reviewed in this article suggests that, in itself, school-level accountability is unlikely to generate significant changes in college participation rates, particularly if it is not linked to direct consequences for students themselves. Furthermore, creating improvements in student test scores, while important, is unlikely to have direct effects on college access until those scores accurately reflect improved student learning in the core subjects of mathematics and English/language arts and unless they translate into higher grade-point averages and higher scores on not only state assessments but the tests that matter most for college: the SAT and ACT. Thus, the impact of NCLB will depend in large part on how states interpret this legislation. Only by ensuring that students take more difficult classes, learn more, and perform better on tests relevant for college entry will NCLB affect college participation rates.

As this review clearly demonstrates, we need to know much more about the implications of NCLB for educational achievement and attainment beyond the secondary level. This large-scale federal intervention in American education is likely to create shifts in school practices that will have outcomes reaching beyond the walls of elementary and high schools. While it is not yet common practice to consider the implications of educational policies in a system-wide manner—thinking past the boundaries of either K–12 or higher education—NCLB offers an opportunity to develop new ways of thinking. The rhetoric of “leaving no child behind” will be translated into reality only if the policy signals change up and down, back and forth, at both ends of the educational system. If accountability serves to increase the capacity of elementary school teachers and their schools but does not similarly drive change in high schools, long-lasting effects will probably not be realized. In the same vein, our review of the research suggests that the failure to carefully construct accountability standards to align with the requirements of higher education may blunt the impact of these policies on overall educational attainment. Thus, NCLB will matter for college access only if it is implemented in a new structural context, one that integrates students, teachers, and administrators in a holistic fashion, across systems.

NOTES

We would like to thank Patricia Burch, Larry Parker, and Sheri Ranis for their helpful comments on drafts of this chapter.

¹ In this chapter we focus on NCLB's school improvement provisions, rather than its teacher quality provisions, because of a lack of extant research on state and federal teacher quality policies. Without such a knowledge base it is quite difficult to assess what those provisions might mean for college access.

² For example, California, Florida, Kentucky, Maryland, New York, North Carolina, South Carolina, and Texas, along with Chicago, and Baltimore.

³ See, for example, the reviews of research commissioned by the Social Science Research Council's Transitions to College Project at <http://edtransitions.src.org/projectresources.aspx?sid=1&A=13>.

⁴ To make AYP, schools must meet state-defined benchmarks for (a) proficiency in mathematics and reading/language arts on annual statewide assessments in Grades 3–8, as well as once in high school; (b) participation rates on these statewide assessments; and (c) an additional indicator chosen by the state (e.g., high school graduation rates are often used as a secondary indicator of success for high schools).

⁵ School capacity is also strongly shaped by the complementary capacities of districts and the wider community of which the school is a part.

⁶ For a counterargument, that external pressure alone cannot compel capacity development, see McLaughlin (1987) and Newmann, King, and Rigdon (1997).

⁷ We thank Patricia Burch for raising this important point.

⁸ It is worth mentioning that Shouse and his collaborators on *Redesigning American Education* (1997) were careful to note that using accountability to increase academic press should be accompanied by other reforms, including creating smaller schools, changing the role and preparation of teachers, and increasing parental involvement in schools. This outcome-driven model, developed by James Coleman, thus calls for reform more comprehensive than that currently entailed in NCLB (Schneider 1997b).

⁹ The threat of school reconstitution in Baltimore, for example, was complemented with the hiring of highly qualified instructional specialists to assist teachers within schools. Extensive professional development is provided on-site by these specialists and through other sources, which encourages teacher dialogue on instruction and student learning and greater internal school accountability (O'Day, 2002).

¹⁰ These forms of accountability are also more representative of what is typically referred to as "high-stakes testing." Testing under NCLB is not truly "high stakes," since no consequences flow to individual students on the basis of their achievement scores.

¹¹ At that time, fewer than one third of states linked students' high school test scores to any consequences for schools.

¹² The four states in this study—California, Florida, New York, and North Carolina—that combined accountability for schools and students had a range of potential sanctions for schools, including loss of students to private schools (Florida), loss of accreditation (New York), potential state takeover or reconstitution (Florida and California), and potential removal of the principal (North Carolina). None of the four had any direct sanctions targeted toward teachers (see Massell et al., 2005, pp. 19–20).

¹³ Schneider (1997b) provided some insight into this finding, noting that Kentucky's accountability testing takes place quite late in high school (11th or 12th grade), possibly after the point at which students can be motivated to change their college decisions.

¹⁴ Using data from the Current Population Survey, the authors defined high school dropout in various ways, first including and then excluding students who obtained general equivalency diplomas from the definition to obtain robust findings. Moreover, they examined not only the effect of requiring a high school exit examination on dropout but the effects of characteristics of such examinations: whether the exams assessed "minimum competency" (testing skills learned

before high school) or “higher competency” (testing skills learned during high school), the difficulty of the exams (based on initial failure rate), and the timing of the exams (first given in 10th or 11th grade). In all cases, those characteristics also had no effects on high school dropout.

¹⁵ Because the authors examined a cohort of eighth graders, they were able to appropriately disentangle the effects of high school dropout and college participation.

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