PART I

The "Big Three" Guiding Resource Strategies

Why Rethink School Resources Now?

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As we move into the new millennium, education is at the top of the public agenda. Americans look to schooling as an investment in the future. We insist that schools help our children meet higher, more clearly defined standards so that they will be prepared for a high-technology world we can only begin to imagine. The ability to quantify student performance more accurately has heightened attention on ensuring that students in high poverty and from different backgrounds are not left behind in the Information Age. We expect schools to do for all children what only the best schools and most capable teachers have done for some in the past. These goals, which focus on all children mastering standards, are different from the ones schools were organized to meet.

In the past, schools aimed to cover content material and paid much less attention to what children learned and who learned it. Today's challenging goals change the job of teaching and the needs for resources. Significant new resources have been added over this time period that might allow new models of instruction and schooling, yet the basic organization of schools has remained stubbornly unchanging for the past 50 years. Throughout this book, we argue that although new resources may ultimately be required, we must first rethink the basic structures and patterns of school organization to free existing resources for more flexible student- and teacher-oriented models of schooling.

NEW GOALS REQUIRE NEW WAYS OF WORKING

Historically, school organizations were never set up to guarantee student *learning*. Instead, schools originally intended to socialize children and to provide students *access* to certain knowledge and skills (Tyack & Cuban,

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1995). The basic structures of modern public schools—the collections of classrooms organized by age and subject, teacher salary schedules, and district administration—were created to ensure exposure to ideas and skills (Darling Hammond, 2001). As Figure 1.1 illustrates, instead of measuring what students could do, districts were set up to measure credits received and material covered. Rather than checking whether teachers were actually helping students gain new knowledge, they required that teachers cover a specified curriculum. When some students struggled and fell behind, the system treated this as a natural outcome of innate differences in ability. These organizational features are so consistent that Tyack and Tobin (1994) called them the "grammar of schooling" and Sarason (1971/1982) the "regularities."

Figure 1.1 Comparison of old goals for schools to new goals for schools

From Schools	\rightarrow	To Schools
Presenting subject matter	→	Ensuring students learn subject matter content
Sorting students: the "elite" reach highest standards	→	Helping all students meet rigorous academic standards
Preparing students for predictable jobs	→	Preparing students for a rapidly changing workplace with emphasis on literacy and critical thinking skills

Not surprisingly, this organization of resources has resulted in some students achieving at high levels, but also in significant gaps between students who succeed and those who don't. According to national tests from 2003, 37% of fourth graders, 26% of eighth graders, and 26% of twelfth graders are reading below the basic level (see Figure 1.2). The basic level indicates a "partial mastery of prerequisite knowledge and skills that are fundamental to proficient work at each grade" (U.S. Department of Education, National Center for Education Statistics [NCES], 2003). A large percentage of students also write below the basic level: 14% of fourth graders, 15% of eighth graders, and 26% of twelfth graders.

Focusing on urban students, a strikingly large percentage of students in large urban districts cannot read and write at or above proficient levels. Nationwide, only 36% of urban fourth graders scored at or above proficient levels in reading, and by eighth grade, only one third scored at the proficient level or above. In 2002, only 13% of Washington, DC, and Los Angeles fourth-grade students scored at or above proficient levels in reading and only 10% in writing (U.S. Department of Education, NCES, 2003).

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Figure 1.2 U.S. student scores on the 2003 National Assessment of Educational Progress

	Reading		Writing	
Grade Level	Below Basic	At or Above Basic	Below Basic	At or Above Basic
Grade 4	37	63	14	86
Grade 8	26	74	15	85
Grade 12	26 (2002)	74 (2002)	26	74

SOURCE: U.S. Department of Education, National Center for Education Statistics (2003).

The responses of standards-based reform and school accountability embody different ideas that require new educational strategies. To teach students instead of material, schools must regularly diagnose what students know, what they can do, and what they may have missed. To teach *all* students, teachers must adopt instructional strategies that fit each student's individual needs and find ways to respond to students who haven't yet grasped the material. Time spent on subjects and skills must vary based on how long it takes students to master them rather than moving in lock-step according to schedule.

To accomplish standards-driven goals, teachers must work together in new ways. When the only concern was covering curriculum, teachers could work independently, because they didn't need to know or build on what students actually learned. Now, the most sophisticated tests measure students' cumulative knowledge of curriculum material. This means that schools must consciously organize to create continuity over time and to adjust to students' different backgrounds, paces, and learning styles. Regardless of their subject, specialty, or training, teachers are now held collectively responsible for developing their students' literacy and problem-solving skills. Clearly, new goals require new instructional strategies and thus a fundamental rethinking of how to organize resources to accomplish them.

TRIPLING OF SPENDING LEVELS, BUT LITTLE CHANGE IN CORE STRUCTURES OF SCHOOLING

Responding to the gap between old structures and our new, higher goals for schools may eventually require that society devote more resources to

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education. But first, it makes sense to diagnose the current investment. Nationwide, spending on each student, adjusted for inflation, roughly tripled between 1960 and the end of the millennium. It rose from an average of \$2,100 to slightly more than \$6,900 in 1999 (U.S. Department of Education, NCES, 1999b). About half of this increase came from growth in average salary and compensation levels and the other half from the addition of more staff (Miles, 1997).

Importantly, the fact that average teaching compensation rose does not mean that teacher salaries rose relative to comparable professions. Much of the overall growth in compensation has been driven by the increasing cost of benefits for all employees over the last three decades. Because teacher salary levels rise with teacher experience, the overall rise in teacher tenure also contributes to the rise in average salaries. A 2004 analysis by the Economic Policy Institute that adjusts for time worked, benefits, and seniority suggests that in the last 10 years, teacher salaries have fallen by about 14% compared with those in similarly skilled professions (Allegretto, Corcoran, & Mishel, 2004). Beyond this reduction in wages, the structure of teacher salaries has remained the same since the 1960s across the nation (Miles, 1997).

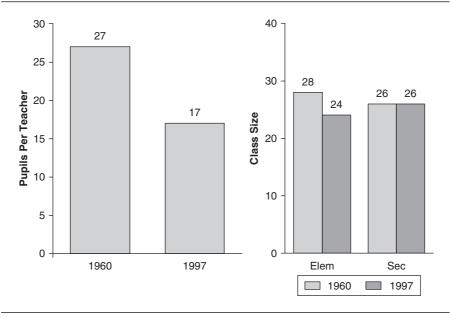
During this period of increased spending, schools increased the size of their staffs. For example, in 1960, schools averaged one staff person (not counting custodians and lunch workers) for every 17 students; now there is one adult for every 9. In 1960, schools had one teacher for every 27 students; they now average one teacher for every 17 (see Figure 1.3). This student-teacher ratio holds true even for districts with more than 50,000 students (one teacher per 17 students in 1997).

Although the number of teachers has doubled, classroom life for most students and teachers feels much the same because class size has changed very little over the past decades. In 1960, for example, elementary class sizes averaged 28 students. By 1997, that number dropped only to 24. Over the same period at the secondary level, average class sizes did not change meaningfully at all, staying at 26 (see Figure 1.3).

Staff positions have been added largely outside of the regular-education classroom, including staff working with special populations of students such as special-education or bilingual students or as subject specialists like art and music teachers in elementary schools. In 1960, 70% of district staff were teachers. By 1997, barely half, 52%, were teachers (U.S. Department of Education, NCES, 1999a). Over the same period, the proportion of regular classroom teachers dropped even more, from 84% to 39% of the instructional staff (U.S. Department of Education, NCES, 1999a; see Figure 1.4).

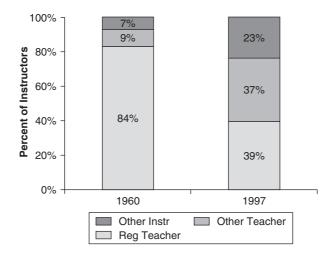
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Figure 1.3 The basic structure of schooling has remained the same



SOURCE: U.S. Department of Education, National Center for Education Statistics (1997).

Figure 1.4 Instructional staff by type, 1960 to 1997



SOURCE: Estimations based on U.S. Department of Education, National Center for Education Studies (1999a), Table 93, and the analysis of Miles (1997).