

# Introduction

WHEN WE THINK ABOUT OUR OWN SCHOOLING, most of us remember a favorite teacher—someone who took us seriously, sparked our imagination, and taught us skills that gave us an unexpected sense of mastery, confidence, and independence. For me, it was William Dykins, my high school English teacher and speech coach, affectionately called “Dyke.” I was fascinated by his clever talk and sophisticated knowledge about literature and life beyond the small midwestern suburb where I lived. He treated me kindly and influenced my life more than any other teacher. Those of us who care deeply about education remember our own schooling through memories of such teachers.

These vivid recollections of outstanding teachers often lead us to frame the problem of educational improvement very simply: How can we attract and retain more teachers like Mr. Dykins? This intuitive response was reinforced at the turn of the millennium when researchers concluded that the teacher is the most important school-level factor in students’ learning.<sup>1</sup> Using *value-added methods* (VAMs) to analyze data sets that included both students’ standardized test scores and the identity of their teachers, scholars produced estimates of each teacher’s contribution to her students’ learning. They found that teachers within a school often varied widely in their effectiveness—a few were outstanding, many were competent, and some were inadequate. In one teacher’s class, students showed unexpected academic growth over a single school year, while those in the class of the teacher next door seemed to have made little, if any, progress. Recently, when economists analyzed school district data and tax records for more than a million

students, they concluded that having teachers with high value-added scores leads, on average, to long-term positive consequences: higher income, more likely college attendance, and fewer adolescent pregnancies.<sup>2</sup>

In light of these findings, many policy makers took up the challenge of improving unsuccessful schools with a plan to increase their *human capital*—the sum total of their teachers’ qualifications, skills, and professional habits. Rarely, if ever, has academic research had such an immediate and far-reaching impact on education policy, much of it focused on teachers in urban districts and schools. After 2000, “teacher quality” rapidly became the watchword of public education’s reformers, analysts, and policy makers. The term identified not only the source of schooling’s problems (weak teachers), but also the most promising lever for addressing it (replace those weak teachers with strong ones).<sup>3</sup> This theory of change was straightforward, if simplistic. Thus began nearly two decades of policies and practices intended to increase human capital in schools, one teacher at a time. Largely ignored were alternative strategies for reform, such as relying on teachers with the most expertise and experience to support the development of their less experienced or skilled peers. In the rush to fix schools, the schools themselves received scant attention.

This focus on the individual teacher gained momentum throughout the US. Some states reduced or removed preservice preparation requirements, often criticized as “barriers to entry” into teaching for “the best and the brightest” college graduates. The prime candidates for teaching often were bright, fresh, determined graduates with no education training or skills. Seldom acknowledged was the fact that teaching is complex work that requires hard-won knowledge and skill acquired over time in preparation programs and practice.

Districts and states in some parts of the country offered substantial signing bonuses to attract “high-quality” teachers, hoping they would revive failing schools. My own state of Massachusetts gained national attention by offering a \$20,000 signing bonus “to encourage high achieving candidates to enter the profession who otherwise would not consider a career in teaching.” Districts in other states offered smaller bonuses of \$2,000 to \$5,000.<sup>4</sup> As reliance on VAMs accelerated, many districts began to use students’ standardized test scores to assess the effectiveness of individual teachers and then award bonuses to those whose students had the highest scores.<sup>5</sup>

In a move to reform schools by increasing human capital, the US Department of Education called for “turning around” chronically underperforming schools by replacing the principal and at least half of the current teachers. During the

Great Recession of 2008, states competing for Race to the Top funding acceded to the federal government's pressure to rigorously evaluate teachers, often annually, and to include student growth as a "significant factor" in a teacher's rating. Many new evaluation policies also enabled districts and schools to dismiss ineffective teachers more quickly than in the past.

However, nearly two decades after this intense and costly effort began, schools that serve low-income and high-poverty communities have not been reformed as many had hoped. Results from the 2018 National Assessment of Educational Progress (NAEP), often called "the nation's report card," were sobering. After seeing gradual improvement in NAEP scores in the early 2000s, analysts found that achievement had "flatlined" by 2018. The one bright spot was a continuing, gradual decline in racial and ethnic achievement gaps, which began in the 1970s and could not be attributed to recent policies.<sup>6</sup> Further, after an exhaustive evaluation, RAND analysts concluded that the Bill & Melinda Gates Foundation's six-year, \$575 million intervention to improve human capital in three large urban school districts and four charter management organizations had failed to reach its goal of improving student achievement and graduation rates.<sup>7</sup>

What explains the failure of these widespread efforts to improve schools by increasing their human capital? I would argue that, although the researchers identified an important problem—the wide variation among teachers that left some students with ineffective ones—their strategies for explaining and fixing that problem were largely off the mark. Unquestionably, schools need smart, skilled, and committed teachers. However, by focusing on those individuals while ignoring the schools where they work, reformers failed to address a major source of the problem: the outdated, inefficient, compartmentalized school organization that rarely provides teachers with the resources and support they need to improve teaching and learning, both in their own classroom and schoolwide. By neglecting the school as a professional work environment for teachers, policy makers have placed all their bets on recruiting talented individuals, rewarding and retaining those who succeed, and dismissing those who fail. Yet a simple strategy of swapping out ineffective teachers for effective teachers has, in itself, shown no promise for achieving the kind of school improvement that students deserve.

Relying exclusively on efforts to improve human capital in this way rests on the shaky assumption that a teacher's success is independent of the school context in which he works, that a teacher who is effective in one school will be equally effective in any other. It is as if the features of schools that teachers regularly report matter to them—for example, the knowledge and skills of the principal, the

effectiveness of schoolwide order and discipline, how time is used, whether they have a curriculum and what it is—have no influence on teachers' practice or their ability to successfully educate their students. According to this view, schools are little more than collections of classrooms, each housing a teacher and her students, who work together unaffected by others.

In this book, I argue that however important it is to attract knowledgeable, skilled, and dedicated individuals to teaching, whether they perform well and stay in their school will depend not only on who they are—their training, skills, and disposition—but also on whether their school supports their development and multiplies the strengths of their human capital throughout the school. In a traditional, compartmentalized school, an excellent teacher who works in isolation may bestow life-changing benefits on her students, but have no influence on the students assigned to less skilled or caring teachers nearby. This inequity is not only unacceptable and unwise, it is unnecessary. Through the case studies presented and discussed throughout this book, we can learn how educators purposefully work together to ensure that all students within a school learn and steadily develop.

### EGG CRATE OR BEEHIVE?

Many teachers continue to work largely alone in their classrooms, and many schools still have essentially the same “egg-crate” structure first described by historian David Tyack and sociologist Dan Lortie over forty years ago.<sup>8</sup> But should they? In no other field is the basic organization of professional work as spare and rudimentary as in the school. Professionals working in other large-scale enterprises—for example, health management organizations, banks, and technology companies—are not left on their own to develop their skills, devise their strategies, and serve their clients as they see fit.

The egg-crate school is both a structural and an organizational metaphor. Not only are classrooms arranged on opposite sides of corridors, resembling the physical form of an egg crate, but teachers also are isolated within those classrooms, by both the walls and doors that encapsulate them. Tyack explains that when the US population moved to the cities in the 1800s and early 1900s, public education progressed from being a widely dispersed set of one-room schoolhouses to becoming multistoried buildings with age-graded classrooms organized like egg crates. Administrators who contended with rapid growth in enrollments found these to be practical and efficient structures, because as student populations grew, schools could grow with them, one classroom or corridor at a time.

When enrollments fell years later, administrators could conveniently downsize their school one classroom at a time. As long as teachers worked independently with their students, such fluctuations did not disrupt their instruction or their students' experience.

However convenient this structure might have been for administrators, it had organizational disadvantages for teachers. It impeded or discouraged their collaboration and development, which in turn limited students' opportunities to benefit from the school's full complement of its teachers' knowledge and skills. It assumed that a student's education is no more than the sum of his or her experiences with individual teachers in different classrooms. From the perspective of management, having self-sufficient instructional units worked well: when teachers' responsibilities were clear and distinct, administrators could ignore ways to create greater interdependence among teachers, such as shared curriculum development, peer observations, or collegial consultations about students' needs. Meanwhile, as Lortie explained, professional norms of privacy and self-reliance endured among teachers, reinforced in part by the very organizational structures in which they worked.

The egg crate had the unintended effect of stifling teachers' growth and limiting their schoolwide responsibility and influence. Within the routines and schedules of most schools, teachers had few opportunities or obligations to watch and learn from their colleagues' instruction or to systematically consider the learning needs of students who were not enrolled in their classes. Within this compartmentalized setup, most teachers were on their own to assess their teaching. Given these deeply rooted priorities and practices that increased isolation and self-reliance, it should be no surprise that teachers vary so widely in their effectiveness, even within the same school.

There have always been exceptions to the egg-crate model—schools or departments where teachers meet regularly, share resources and lessons, watch one another teach, and offer feedback. As a new high school English teacher in 1967, I was fortunate to be assigned to such a school and department. Quickly, I was included with teams of teachers who wrote curriculum together during the summer and then taught and refined it in the fall. We met often, both formally and informally, to check in with colleagues who taught similar courses or students and to discuss what worked well or how we might do better. Each of us had one unassigned period a day when we were not teaching and could plan our classes. Although that time was not deliberately scheduled to promote collaboration, we each had a desk in a common English workroom where two or three of us could confer when our planning periods happened to align. I'm sure that when I left

that school nine years later, I was a much better teacher than when I arrived, due largely to my colleagues and the organization of our school.

When I returned to graduate school as a doctoral student, I mistakenly assumed that most teachers experienced their school much as I had—as a stimulating, inspiring environment where teachers collaborated regularly, holding high standards for themselves and each other. So I was surprised to learn from many of my classmates that the schools where they had taught functioned more like inert egg crates than the intense beehive I had inhabited. The collegial interaction that I had assumed was a given for most teachers turned out to be rare.

When teachers don't have frequent, well-organized opportunities to work alongside and learn from their colleagues, the school squanders the precious human resources that it has worked so hard to gather. Given an arid professional context, even promising novices and tested experts may decide to withdraw to the security of their classrooms or leave their school. The fundamental mistake that policy makers and administrators made in their focus on human capital was not that they wanted to have knowledgeable, skilled, and committed teachers, but that they imagined those teachers could succeed and be sustained without the school's ongoing investment in their learning, development, and joint efforts to better serve their students.

Although wide variability in teachers' effectiveness from classroom to classroom deserves attention, some variation is inevitable. In any school, at any time, certain teachers know more than others about particular subjects, have skills that others don't, and have more teaching experience, which research shows makes them on average more effective.<sup>9</sup> However, these assets often do not inhere in the same individuals. Given that diversity, school leaders could do much more to draw upon teachers' strengths throughout the organization in ways that enhance everyone's performance and the overall effectiveness of the school. Teachers could learn from watching their peers teach and collaborate on teams where they coordinate their instruction, improve their pedagogy, and review students' progress together. They could work with specialists and administrators to identify additional supports for individual students and develop common approaches to improve behavior. Together they could assume leadership at the grade level or by subject area to diagnose and address their school's challenges. Many possibilities exist, but meaningful change does not occur either swiftly or spontaneously. It requires the ongoing, deliberate effort by educators within the school to develop both a professional culture that is committed to improvement and systems of practices that stimulate and support it.

In 1988, James Coleman explained that an organization benefits when the human capital of individuals is increased and transformed by its social capital—the ongoing interactions of people in various roles. In this way, as teachers and administrators work together, a school’s social capital can be said to increase its human capital.<sup>10</sup> Policy makers and practitioners need a dependable model for improving schools, with policies and practices to match—a model that acknowledges, supports, and promotes teachers’ best performance not only within their classroom, but also across the school. Research conducted within schools can help us identify the components of that model, learn how it works in practice, and understand what it takes to enact, implement, and sustain it so that teachers and students thrive.

## THE PROJECT ON THE NEXT GENERATION OF TEACHERS

For the past forty years, my research and teaching have been motivated by an intense interest in understanding, explaining, and improving the school as a workplace for teachers.<sup>11</sup>

In 1998, I joined with four doctoral students, Susan Kardos, David Kauffman, Ed Liu, and Heather Peske, to create the Project on the Next Generation of Teachers at the Harvard Graduate School of Education. We all had been teachers and shared an interest in strategies to improve teachers’ work and their workplace. At the time, a large cohort of experienced teachers who had joined the profession in the late 1960s and made teaching a lifelong career were beginning to retire. They were being replaced by a new generation of teachers who were entering the profession in a labor market with many professional options that had not been available to women and to men of color of my generation when we entered teaching three decades earlier. By 1998 virtually all career options were open to anyone considering teaching, and administrators could no longer expect well-educated candidates to choose a teaching career by default, as many in my generation had done.

### Our Study of Fifty New Teachers

Our initial research goal at the Project was to learn about this cohort of new teachers as they moved into schools. Who were they? Why were they entering teaching? What did they experience as novices? Would they remain at their schools and in teaching, as their predecessors had done? What factors influenced their career choices? A key decision that researchers make in designing a study is what the unit of analysis will be—that is, *who* or *what* it will focus on. The unit of analysis might be individuals, social groups, institutional groups, or organizations (such as

schools or school districts). Given our research goal and the issues that interested us, the unit of analysis for our study was the individual teacher.

In an effort to answer our questions, we identified a sample of fifty first-year and second-year teachers in Massachusetts public schools. We intentionally selected a diverse group in order to learn about the full range of new teachers—individuals with different types of preparation, working in urban and suburban schools, and teaching different subjects in elementary, middle, and high schools. In addition, we sought to have racial, ethnic, and gender diversity in our sample, which was not easy to achieve at that time, when over 80 percent of US teachers were white women.

We deliberately chose teachers working in different types of schools, but we realized later that we didn't design the study to examine those schools. Although we interviewed many teachers while sitting in their classrooms, we also met with them in other settings, such as libraries or coffee shops, never setting foot inside their schools. We made no deliberate effort to investigate their work environment or to verify their description of it. In our interviews, we focused on teachers' personal experiences, with questions such as: "How did you decide to teach?" "How did you come to teach at this school?" "Please describe the type of support you've received as a new teacher, either within the school or the district." "What formal or informal contact do you have on a regular basis with other teachers?" "Do you have a curriculum for the subjects you're expected to teach?" In response to these questions and others, our participants told us again and again about their schools and what it was like to teach in them.

### *The primacy of the school*

Eventually we realized the obvious: although there were notable similarities among the fifty teachers of this new generation, what mattered much more was what they experienced within their particular school. Those schools differed as work environments, even within the same district, and those differences mattered. Many of these new teachers had made a conditional commitment to teaching. They said that, if they achieved a "sense of success" in their work, they would probably stay, but if not, they would (and could) move on to a different school or turn to another career.<sup>12</sup> Their satisfaction with teaching was determined almost entirely by what happened at their school. If they were not assigned to courses that matched their areas of expertise, if they did not get support from their colleagues and principal, if they did not have an adequate curriculum, or if their stu-

dents were disruptive, they might leave. Although state and district officials were making consequential decisions that substantially affected their work, such as setting licensing requirements or pay levels, what mattered most to those teachers occurred day to day in their school.

### *Surprising rates of turnover*

We tracked these fifty new teachers over four years and by the end of our study, we documented troubling rates of turnover among them. Approximately one-third of our fifty teachers remained in their original school, one-third had changed schools, and one-third had left public school teaching. In our 2004 book *Finders and Keepers*, we describe the experiences of ten representative teachers and analyze their career decisions.<sup>13</sup> Because we had selected the teachers we studied deliberately rather than randomly and all our participants taught in Massachusetts public schools, we could not generalize what we learned to other teachers or locations. However, we did find that the proportions of “stayers,” “movers,” and “leavers” in our sample were similar to those being reported nationally.<sup>14</sup> At about the same time, Richard Ingersoll and Thomas Smith also identified high rates of turnover in their analysis of national data from the Schools and Staffing Survey and the Teacher Follow-up Survey, leading them to aptly characterize the teaching career for novices as a “revolving door.”<sup>15</sup>

We then wanted to know more about how new teachers in other states experienced their work. Did the problems that our fifty new Massachusetts teachers identified in their work hold true for others? And so we surveyed random samples of first-year and second-year teachers in different states about three key experiences: how they were hired, how they interacted with colleagues, and whether they had the curriculum they needed.<sup>16</sup> In large part, we found that the experiences of the teachers we surveyed were similar to those we had interviewed. Many had been hired hastily and late, found their relationships with assigned mentors paltry and disappointing, and reported that they often lacked the curriculum and materials they needed to teach.

Because the unit of analysis for these additional surveys was again the individual, we never learned what we needed to know about those teachers’ schools. We did, however, identify notable differences between teachers’ experiences in schools serving low-income and high-income communities. New teachers in low-income schools were less likely than their counterparts in high-income schools to experience timely and informative hiring, to benefit from mentoring and support

from experienced colleagues, and to have a complete but flexible curriculum that was aligned with state standards.

## CONTEXT MATTERS

Recognizing that school context was potentially more important than we had initially acknowledged, Matthew Kraft, John Papay, and I studied the relationship between the teachers' work environment and both their satisfaction and their students' performance.<sup>17</sup> We analyzed two large data sets. The first was a state-wide online survey (MassTeLLS) that asked teachers detailed questions about their work environment. For example, keeping their school in mind, teachers were asked to report how much they agreed or disagreed with statements such as: "The faculty has an effective process for making group decisions to solve problems," "Teachers have sufficient instructional time to meet the needs of all students," "The school leadership consistently enforces rules for student conduct," and "Teachers receive feedback that can help them improve teaching."<sup>18</sup> The second data set in that study included information about students' performance on the state's annual test, the Massachusetts Comprehensive Assessment System (MCAS), using a measure of student achievement growth (student growth percentile, or SGP) reported by the state. For this study, our unit of analysis was the school.

When we compared schools that served similar proportions of low-income and minority students, we found that teachers whose schools received overall high marks on the TeLLS survey reported that they were more satisfied with their work and planned to stay longer than teachers in schools that received low marks. In low-income schools that teachers rated highly, few said that they intended to leave, while in others that received low ratings overall, many did. This seemed particularly important because it suggested that when teachers left their low-income schools, they were not leaving because of the students in those schools, as some researchers had suggested, but because they found their work environment unsatisfactory.<sup>19</sup> The factors that mattered most to the teachers surveyed were social and organizational—the principal's leadership, relationships with colleagues, and the culture of the school, including discipline. Further, and equally important, when we compared schools that were demographically similar, we found higher rates of student growth in schools rated more favorably by their teachers.<sup>20</sup> It appeared that what was good for teachers was also good for their students.

Our research and similar studies by other scholars suggest that students and teachers could substantially benefit by improving the school as a workplace for

teachers.<sup>21</sup> Providing a strong and supportive work environment is likely to enable teachers to succeed with their students and thus to retain more teachers. Some critics contend that efforts to reduce turnover among teachers are misguided because evidence suggests that, although the average teacher improves steadily during his first few years in the classroom, his progress levels off after three to five years.<sup>22</sup> However, other studies find that more experienced teachers are on average more successful than less experienced teachers and, therefore, worth retaining.<sup>23</sup> Proponents of reducing turnover value not only teachers' instructional effectiveness, but also the organizational stability that comes with having a staff of experienced teachers—stability that can support efforts to increase a school's overall instructional capacity and success.

Policy makers and district officials often ignore the fact that teacher turnover within schools is costly, both financially and organizationally. When a school or district must repeatedly hire new teachers to fill vacancies, it incurs steep expenses (in both dollars and time) as it recruits, selects, employs, and provides both induction and professional development for new entrants. In their detailed 2006 study of the Boston Public Schools, Sarah Birkeland and Rachel Curtis found that, in a single year, the cost for the turnover of 194 first-year through third-year teachers was \$3.3 million.<sup>24</sup> Turnover also exacts organizational costs. Elaine Allensworth and colleagues identified “a range of organizational consequences” of turnover in the Chicago schools they studied, “such as discontinuity in professional development, shortages in key subjects, and loss of teacher leadership.”<sup>25</sup> Matthew Ronfeldt, Susanna Loeb, and James Wyckoff analyzed data from the New York City Schools and found that students' academic achievement fell when high rates of teacher turnover occurred at their grade level within the school, even if their own teacher was unaffected. This suggests that losing current teachers may compromise instructional capacity by disrupting the school's systems for curriculum and instruction.<sup>26</sup>

Over the first ten years of our Project, we found that retention was a powerful, though certainly not infallible, indicator of a school's success. Teachers were inclined to stay in schools where they and their colleagues had the resources, systems, and support they needed to serve students well—both individually and as a group. Yet, because we had not studied schools themselves, we couldn't yet explain in any detail what factors differentiate positive, sustaining work environments that serve teachers and students well from unproductive, demoralizing ones that shortchange both. We wondered what practices distinguish one school, where collaboration among teachers is intermittent, superficial, and unsatisfactory, from

another, where teachers work together steadily and purposefully to plan instruction and review their students' progress. How do teacher leaders in one school gain the skills and respect they need to improve instruction across grade levels, while teachers in another school ignore what happens in other classrooms, keep their heads down, and comply minimally with whatever the principal requires? How is time managed in a school where teachers get their work done and still enjoy a life outside of it, while in another school, the demands of the job are so overwhelming or mind-numbing that teachers plan to leave?

## OUR FOCUS ON LOW-INCOME SCHOOLS

Our subsequent case studies at the Project focused on teachers working in low-income, urban schools, which historically have been systematically shortchanged by city and district officials.<sup>27</sup> Clearly, other schools, such as those serving Native American students and poor, rural communities, also have been neglected and deserve both sustained attention and the resources needed for improvement. Further, we know that schools serving wealthier and whiter student populations also have shortcomings that should be addressed. We don't assume that our findings about teachers' experiences in low-income, urban schools will apply in all settings, but we are convinced that many of the basic principles we found—the importance of collaboration, ongoing support for teachers' development, encouragement for teacher leadership, practices that contribute to greater schoolwide coherence, and professional norms that encourage everyone to steadily get better at what they do—are relevant to all schools.

Compared with schools in middle-income and high-income communities, schools that are located in low-income, urban communities are more likely to be assigned the least experienced teachers and administrators, to have the worst facilities, and to have the highest rates of turnover among teachers and principals. Their students are more likely to repeatedly experience racism, violence, homelessness, and a severe lack of access to medical and social services. On average, these students depend more on their school and teachers for their learning than do students in higher-wealth communities.<sup>28</sup> Given these challenges, it is no surprise that low-income, urban schools are also among the poorest performing schools in the nation. However, as we learned by analyzing data from the TeLLS survey and students' performance on the MCAS, some low-income urban schools do provide positive work environments for their teachers, enabling them to serve their students well. If we can explain how this works, then policy makers, admin-

istrators, and teachers themselves will know much more about how to improve students' learning in many types of schools and communities.

### Massachusetts as a State Context

The multisite case studies featured here were conducted in Massachusetts. Interviewing nearly four hundred educators in twenty-six schools takes a great deal of time and, given teachers' tight schedules, requires repeated visits to a school. Because we lived and worked in Massachusetts, we could conduct the intensive, ongoing data collection that this kind of research requires. Also, there was an advantage to watching how schools functioned within the same state environment and observing how policies and practices within that context evolved over time. Although it certainly would have been worthwhile to duplicate these studies in different states, the expense and time required to do so were well beyond our budget.

State education agencies across the US vary widely in size, influence, and priorities, all of which affect what happens in schools. Given that variation, there would have been no merit in studying districts in some hypothetically "typical" state. We realized that the lessons we might learn from these school-based studies would be tied to specific practices, not average or typical ones. Massachusetts schools are funded by a mix of state and local property taxes. With a history of local control, state education officials in Massachusetts exercise less control over its districts and schools than those in many other states. However, the state is notable for its investment in public education and the success of its schools. Currently, it ranks first in the nation on various measures of educational performance, including the NAEP. This does not mean that all of its schools are effective, but that, compared with other states, more schools in Massachusetts are more effective. Therefore, because our goal was to identify best practices in challenging urban settings, studying schools in Massachusetts promised to yield valuable lessons.

### THE FEATURED CASE STUDIES

In the chapters that follow, I draw directly and indirectly on many studies, including those we have conducted at the Project as well as those conducted by other researchers. However, I focus on findings from three major studies that we carried out in low-income urban schools between 2008 and 2015. Each study is described in detail in the appendix. Our unit of analysis for each of these studies

was teachers within schools. Rather than trying to learn about the teachers' work environment indirectly by talking with one or two individuals, we visited those schools and interviewed diverse samples of teachers, administrators, and staff who worked there. The three multisite case studies that provide the core data for this book are summarized next.

### Second-Stage Teachers in Urban Schools

The Second-Stage Teacher (SST) study, conducted in 2008, focused on teachers in the second stage of their career (years four through ten). We designed it to chronologically follow our earlier study of novice teachers, who would have been SSTs by 2008. We were especially interested in learning how these SSTs experienced professional learning opportunities, curriculum, accountability, and instructional coaching in their low-income schools.

We used a nested design so that we could learn about individual teachers working within their school context, situated within a district. We interviewed eighty-five teachers in fourteen schools located in three underperforming urban Massachusetts districts. Based on student performance and demographics, most of the schools we selected were similar to others in the district. All but one school had been sanctioned by state officials for failing to make Adequate Yearly Progress (AYP) on the MCAS, under the federal No Child Left Behind Act of 2001 (NCLB). Here I draw on findings from two schools in the same district, Lane Elementary School and Deer Park Middle School. (See table I.1 for descriptive data about these and other schools in our three studies.)

### Teaching in Context

We conducted the Teaching in Context study in 2010–2011 in the Walker City School District (WCSD), a large, urban school district in Massachusetts that the state had rated as underperforming. The metropolitan area surrounding Walker City enjoyed a strong economy, a very high proportion of college graduates among its citizens, and many colleges and universities that prepared new teachers.

Based on our earlier study of school context, we carefully selected a diverse group of six elementary and secondary schools that varied on two dimensions: student growth on the MCAS and teachers' satisfaction with their work environment as reported by the TeLLS survey. All six schools in our sample enrolled large numbers of students of color who lived in low-income or high-poverty communities.

In this study, we sought to understand the instructional and organizational challenges that teachers in each school faced and the practices their schools

**Table 1.1** Three major studies

School	Principal	Grades	Teachers	Student enrollment	Low income	Students of color	Student growth percentile, ELA	Student growth percentile, math
SECOND-STAGE TEACHER STUDY								
Lane Elementary	Ms. Landry	K-6	19	350	81%	79%	62	70
Deer Park Middle	Ms. Dolan	7-8	34	580	84%	70%	63	49
TEACHING IN CONTEXT STUDY								
Angelou Elementary	Mr. Andrews	K-5	55	700	90%	95%	35	50
Giovanni Elementary	Mr. Gilmore	K-5	45	450	95%	90%	55	60
Morrison K-8	Ms. Maxwell	K-8	27	400	95%	95%	45	20
Stowe Middle	Ms. Sterling	6-8	50	700	90%	95%	45	45
Thoreau High	Ms. Thomas	9-12	69	900	80%	95%	50	55
Whitman Academy High	Ms. Wheeler	9-12	24	250	85%	95%	60	65
SUCCESSFUL SCHOOLS STUDY								
Dickinson Elementary	Ms. Davila	PreK-5	30	400	76%	91%	60	83
Fitzgerald Elementary	Ms. Forte	PreK-5	35	390	85%	98%	63	63
Hurston K-8	Mr. Hinds	K-8	65	800	75%	99%	58	58
Kincaid Charter Middle	Mr. Kain	6-8	40	475	88%	90%	56	85
Naylor Charter K-8	Ms. North	K-8	37	500	82%	99%	55	58
Rodriguez Charter PreK-8	Ms. Rega Mr. Ryan	PreK-4 5-8	45	420	72%	83%	68	65

adopted to deal with them in the context of accountability. These practices included teacher teams, instructional coaching, discipline and supports for students, and opportunities for teacher leadership. We interviewed twelve administrators and eighty-three novice, second-stage, and veteran teachers.

### Teaching in Successful Schools

The Successful Schools study, conducted in 2014–2015, focused on teachers' experiences in six elementary and middle schools serving students from low-income and high-poverty communities within Walker City. Notably, all had received commendation from Massachusetts officials with a rating of Level 1, the highest in the state's accountability system. These schools were both successful academically and well regarded publicly. The sample included three district schools and three state charter schools.

Two of the district schools had earlier been placed in turnaround by the state, while the third had performed well for many years. Two of the charter schools were well established, having been created under the state's charter law ten and twenty years earlier. The third charter school was selected to restart a failing middle school in WCSD. Therefore, both in the past and at the time of our study, these six schools operated in different policy environments, which imposed diverse requirements and granted them varying levels of autonomy.<sup>29</sup>

In this study of teachers' experiences in successful schools, we sought to understand the systems and practices that shaped teachers' work. We interviewed ninety-seven teachers, seventeen administrators, twenty nonteaching staff, and eight teachers-in-training. We deliberately chose teachers who had different levels of experience and taught a varied selection of grades and subjects. Our goal in this study was to understand, compare, and describe practices used by these successful schools for hiring, evaluating, supporting, and retaining teachers, while also comparing practices among the district and charter schools in this sample.

### RECONCILING THE TENSION BETWEEN PEOPLE AND SYSTEMS

As we explored how to improve schooling by improving the teacher's workplace, two themes repeatedly emerged, often in tension with each other. The first is the reality that public education is a thoroughly human enterprise from its core in the classroom to its boundaries in the district office or state legislature. Students' learning needs, teachers' skills and preferences, staff members' background and commitment, parents' priorities, administrators' leadership, and policy makers' sense of responsibility to their constituents all play a role in this enterprise. The

fact is that schools can never be reformed while ignoring these actors' various needs and preferences.<sup>30</sup>

The second theme is the importance of having orderly, sensible systems for doing the work of schooling. When individual differences are not only recognized but given full sway, schooling becomes personalized and rewarding for some, but arbitrary, capricious, and inequitable for many others. Systems and practices can provide valuable supports that guide teachers in deciding what and how to teach, allocating their time, and judging what works in their classroom. However, teachers often distrust systems that are imposed by policy makers, district officials, external experts, or principals, because they threaten to reduce or eliminate the professional discretion that teachers need to do their work well. Such systems might include teacher-proof curricula and pacing guides, zero-tolerance discipline requirements, test-prep regimens, or computerized templates for reports, record keeping, and grading. In many teachers' experience, these kinds of mandated practices too often discount the people who must use them and suppress good practice by prohibiting variation, discouraging innovation, barring adaptation, and penalizing independent thinking. Therefore, unless a school's systems are chosen, adapted, and well understood by those who will use them, they are likely to trigger skepticism and resistance from the start.

However, good systems that are adopted with good reason can enhance good practice. Atul Gawande richly illustrates how this works in medicine, where "extreme complexity is the rule for almost everyone." He likens the complex problems of saving lives and restoring health to those of "raising a child. . . Their outcomes remain uncertain. Yet we all know it's possible to raise a child well." Gawande explains that when many individuals participate in solving complex problems, as they do in effective health care, everyone involved does not exercise individual autonomy. In fact, he calls autonomy "a disaster. It produces only a cacophony of incompatible decisions and overlooked errors." However, neither does the answer rest in unquestioning compliance with an externally imposed system, which cannot address all the conditions and complications that emerge. Instead, he explains, "the philosophy is that you push the power of decision-making out to the periphery and away from the center. You give people the room to adapt, based on their experience and expertise. All you ask is that they talk to one another and take responsibility. That is what works."<sup>31</sup>

These basic principles hold for educators engaged in the "extreme complexity" of improving urban schools, where teachers and administrators continue to search for how best to educate their students. The cases discussed in these chapters

reveal this ongoing tension between the people and the systems meant to guide or regulate them. In many schools, policy makers and administrators have tried to impose structures and practices that demand compliance and produce predictable outcomes, only to discover that those outcomes are meager. In part, this occurs when the required systems and those who oversee them disregard the realities and potential of the teachers who are expected to implement them. They all too often divert teachers' attention and waste their energy because they fail to address the school's real challenges or the teachers' real needs. In other cases, however, teachers contribute to diagnosing problems, adapting practices, and devising systems that enhance their ability to do their work well. In doing so, these schools successfully reconcile the tension between people and systems so that they are mutually reinforcing. As educators adapt, improve, and strengthen these social systems to meet their students' needs, they also rely on them for guidance and support. From their experiences we can learn not only what works, but also how and why it works.

## HOW TO READ THIS BOOK

The chapters in this book are thematic, each addressing a different challenge in the teachers' work environment. Examples from the three case studies just introduced run through those chapters. Therefore, you will find descriptions and analyses of practices from a single school in several chapters and, over the course of the book, you will come to know many schools. I have provided a Cast of Characters for the three studies as well as table I.1 to summarize basic information about the fourteen schools discussed here. You'll notice that the pseudonyms for the fourteen schools and their principals, directors, and other administrators all begin with the same letter, which is meant to make your reading easier. Even though the many teachers we interviewed for these studies are the focus of this book, I have not identified them individually with pseudonyms because having so many names would complicate reading.

The chapters that follow are organized thematically, but they need not be read sequentially. Instead, each is part of a whole and together they address key features of the teacher's work environment, which ultimately shapes the students' learning environment. Each chapter presents a challenge and explores how various schools in our studies dealt with it, as well as how teachers experienced and assessed their school's approach. I highlight both problematic and promising practices because it is important to understand not only what to do, but also what *not* to do; both offer valuable lessons for policy makers, administrators, and teachers.

Chapter 1, “Making a Match in Hiring,” focuses on the basic human capital challenge of hiring teachers. It highlights the importance of making a good match between a job candidate and a school. Hiring in many schools continues to be late, rushed, and “information-poor.” However, effective, “information-rich” hiring ensures not only that a prospective teacher has a good preview of what it will be like to work in the school, but also that she can demonstrate her teaching and exchange important information with prospective colleagues.<sup>32</sup> Such opportunities increase the likelihood that, from the start, a new teacher will be known and supported by her colleagues.

Chapter 2, “Deciding What and How to Teach,” focuses on the choices that teachers make about curriculum and instruction, especially in the context of state standards and accountability. This is a continuous challenge for teachers, especially if the state’s curricular frameworks and performance standards do not align well with the materials they have, their assigned curriculum, or their school’s instructional goals. Here we see how teachers choose, develop, and teach one or more subjects, given the demands of standardized testing and accountability. Although district officials may select the curriculum, it is at the school where teachers and administrators explore and enact new instructional strategies to address their students’ learning needs. When schools support those efforts with resources and coaching, they can augment instructional capacity schoolwide.

Chapter 3, “The Potential of Teacher Teams,” focuses on teachers’ working relationships with their colleagues and the promise of teams to integrate and advance their joint efforts. Although teachers have long reported that peers are their greatest source of support, the physical and professional isolation that they experience in many schools often limits access to their colleagues’ expertise and advice. When teacher teams are organized to address both individual and schoolwide needs, the collaboration they provide can benefit the participating teachers, their students, and others within the school.

Chapter 4, “Who Addresses Students’ Needs and Conduct?” focuses on the students themselves, for if their teachers are to succeed in their work, then students must learn and perform well. However, students introduce uncertainty into teachers’ work, because of both their academic and personal experiences and needs. This is especially true in low-income, urban communities, where many students live in challenging environments and schools have repeatedly failed to deliver what their students need. The teachers we interviewed raised concerns about student discipline and order; the academic, social, and psychological supports required to address students’ needs; and strategies for engaging parents and

families to support their children's education. This chapter compares two types of schools—those that take on broad responsibility for serving students and families and those that confine their attention to what happens within the school.

Chapter 5, "Using Evaluation to Improve Instruction," focuses on the role of supervision and evaluation in helping teachers to improve their instruction. Classrooms may protect teachers' privacy, but a closed classroom door also deprives those teachers of opportunities to learn more about their own instruction and that of their peers. Teachers widely view traditional professional development as being far removed from their classroom and, therefore, providing virtually no feedback about how they teach. This chapter examines exemplary practices in teacher supervision and evaluation, which offer the kind of feedback and coaching that teachers welcome and learn from.

Chapter 6, "When Teachers Lead," explores the leadership that teachers exercise, both as faculty members who guide school improvement and as teacher leaders with specialized roles. All teachers can influence change in their school, whether by supporting and contributing to others' ideas and initiatives, resisting them, or advancing their own proposals for improvement. Much depends on whether the principal encourages teacher leadership or tries to suppress it. As the experiences of several schools show, when principals and teacher leaders join together to improve a school, they can make remarkable progress.

The final two chapters deal with two resources that make it possible for teachers to effectively do their work. Chapter 7, "Making the Most of Teachers' Time," focuses on what is arguably the scarcest resource of all in schools—time. Teachers spend many more hours each week preparing to teach than their formal workday requires. Much of that work is invisible to policy makers, but essential for effective instruction. Decisions about how teachers' time is allocated have a far-reaching effect on what a school can achieve. Recent initiatives to create common planning time for teachers and extended learning time for students have introduced new opportunities and benefits for teachers and students. Both have promise, but only if they are well implemented.

Finally, chapter 8, "What Pay Means to Teachers," examines teachers' pay by exploring its purpose, what it means to teachers, and whether teaching is an affordable profession. Public school teachers' pay is usually set at the state or district level, often through collective bargaining, while charter schools and charter management organizations (CMOs) independently decide how and how much their teachers are paid. Here we learn from the experiences of teachers working in

schools and districts that variously rely on a traditional salary scale, award merit pay bonuses, or provide career ladders.

In the conclusion I summarize the key findings of the book. I review the importance of teachers' leadership in school improvement and the principal's role in making that leadership not only possible, but likely. I highlight systems and practices that are widely acknowledged to be effective as well as those that continue to be debated and developed. I suggest what policy makers and district officials can do to enhance the quality of teachers and teaching. Finally, I explain how teachers and principals within schools can use what we learned from these case studies to improve their own schools as work environments.

Although each of these chapters addresses a distinct topic, the practices they explore often are entwined and interdependent within the schools. However, in tracking those relationships, I do not mean that school improvement is an all-or-nothing process. Having one practice work well makes it easier to improve another. For example, a good hiring system establishes early support for a new teacher among his colleagues. Curriculum that is coordinated across the school can ensure that no student gets lost or left behind. If a school has strong teams, then teachers will not have to depend entirely on their principal for feedback and instructional advice. If teachers can exercise influence throughout the school and in formal positions as teacher leaders, then the school's systems and practices can be better adapted to fit its needs. If teachers are paid a fair wage, then the demands of teaching will be less daunting and the school's progress more sustainable. It is through such interactions and coordinated efforts that a school builds capacity, as teachers and principals learn to work together productively on behalf of their students.