On Their Own and Presumed Expert: New Teachers' Experience with Their Colleagues

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Background/Context: *In order to develop effective strategies for retaining able and committed teachers, it is important to understand how new teachers experience their work with their colleagues. A previous qualitative study conducted by the authors and others presented a conceptual framework for understanding new teachers' experiences of the professional culture of their schools. The prior work suggested that new teachers might be more likely to stay in teaching and remain at their schools when they work in what the authors called integrated professional cultures, which promote frequent and reciprocal interaction among faculty members across experience levels; recognize new teachers' needs as beginners; and develop shared responsibility among teachers for the school.*

Focus of Study: *This study uses the concept of integrated professional culture to frame an inquiry about new teachers' experiences at their schools and with their colleagues.*

Research Design: *The study examines the experiences of a representative random sample of 486 first- and second-year teachers surveyed in four states (California, Florida, Massachusetts, and Michigan). Participants were chosen using two-stage stratified cluster sampling. The mail survey achieved a response rate of 65 percent. The authors conducted descriptive analyses of the questionnaire data and summarized new teachers' experiences in a series of comparative tables.*

Conclusions/Recommendations: *The data revealed that many novice teachers report that their work is solitary, that they are expected to be prematurely expert and independent, and that their fellow teachers do not share a sense of collective responsibility for their school. In*

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integrated professional cultures, new teachers interact with experienced colleagues in an ongoing way. However, the authors found that approximately one-half (in CA and MI) to two-thirds (in FL and MA) of new teachers generally plan and teach alone. In integrated professional cultures, new teachers are recognized as novices and offered extra assistance; however, the authors found that less than one-third (MI) to less than one-half (CA) reported that extra assistance was available to them. Finally, in integrated professional cultures, teachers share a sense of collective responsibility for the school. However, less than half of the new teachers in the four states reported that teachers share responsibility for the students in their school. Taken together, these findings reveal that many new teachers work without the support of integrated professional cultures. Given these findings, the authors discuss in detail what policymakers and school leaders can do to address the critical challenge of supporting new teachers.

INTRODUCTION

High rates of attrition among new teachers impose steep costs on schools and their students. These include the expense of turnover, estimated by one national research, policy, and advocacy organization to be about $12,546 per teacher[1] (Alliance for Excellent Education, 2004), and the organizational costs imposed by the steady loss of teachers' knowledge and expertise (Ingersoll, 2001a). Given that approximately 30 percent of new teachers leave the classroom within three years, and 40 to 50 percent leave within five years (Huling-Austin, 1990; Ingersoll, 2002; Ingersoll & Smith, 2003; Murnane, Singer, Willett, Kemple, & Olsen, 1991), these costs are cause for serious concern.

Although attrition among teachers is partially a consequence of demographic changes such as retirement, it has been shown to result substantially from organizational factors. According to national estimates, 42 percent of teachers who leave classroom teaching report that their primary reason was either dissatisfaction with the job or the desire to pursue another job or career (Ingersoll, 2001a). Further studies show that it is in classrooms and in schools—with their students and their colleagues—where new teachers decide whether or not to stay in teaching (Johnson & Birkeland, 2003; Johnson & The Project on the Next Generation of Teachers, 2004). Therefore, if we are to understand what drives attrition and how to develop effective strategies for retaining able and committed teachers, we must first understand in some detail how new teachers experience their work in schools.

This study explores new teachers' experiences with their colleagues. In a previous qualitative study, we found that new teachers are more likely to stay in teaching and remain at their schools when they perceive their schools to be places that do three things: promote frequent and recipro-

cal interaction among faculty members across experience levels; recognize new teachers' needs as beginners; and develop shared responsibility among teachers for the school and its students. We labeled these types of workplace cultures *integrated professional cultures* (Kardos, Johnson, Peske, Kauffman, & Liu, 2001). In this study, we used the concept of integrated professional culture to frame our inquiry into the experiences of a representative random sample of new teachers surveyed in four states.

In this article, we first outline the analytic framework that emerged from our earlier research, which undergirds this study. The framework includes three types of professional culture that we found new teachers experiencing at their schools: veteran-oriented, novice-oriented, or integrated professional cultures (Kardos et al., 2001). We then explain the concept of integrated professional culture and examine the survey data using the components of this concept.

The survey responses reveal that many novice teachers today are likely to begin their teaching careers in schools where they must find their own way. This is true, despite the fact that new teachers express an interest in and need for collaboration, and despite evidence that collaboration contributes to school effectiveness. Many new teachers report that their work is solitary, and that they mostly plan and teach alone. Many respondents are not sheltered as novices, but rather, are expected to be expert and independent from the start. Moreover, many new teachers do not believe their fellow teachers share a sense of collective responsibility for their students or each other. We examine each of these findings and then discuss the implications for retaining new teachers and building effective schools.

ANALYTIC FRAMEWORK

In his analysis of the National Center for Education Statistics *Schools and Staffing Survey* data from 1990-1991 and the subsequent Teacher Follow-up Survey from 1991-1992, Richard Ingersoll (2001b) challenged the prevailing belief that school staffing problems are primarily due to teacher shortages resulting from large scale, demographic trends. Instead, he concluded that certain organizational factors—particularly inadequate administrative support, poor student discipline, low levels of faculty participation in school decision-making, and low salaries—are responsible for high rates of teacher turnover and, thus, contribute to school staffing problems.

In our earlier qualitative, longitudinal study of the experiences of 50 new Massachusetts teachers (Kardos et al., 2001), we too examined the role of certain organizational factors in new teachers' work, including

their experience of the professional culture[2] of their schools. By "professional culture," we mean the established modes of professional practice among teachers; their norms of behavior and interaction; and the prevailing institutional and individual values that determine what teachers do and how they do it. Professional culture can be school-wide, or it can exist in sub-units within schools, such as in departments (Siskin, 1994), grade levels, or clusters. Professional culture both influences and is influenced by formal and informal structures for support, such as mentoring, classroom observations, teacher meetings, collaboration, and professional development. The professional culture of a school shapes how teachers approach and conduct their work together (Little, 1982). This is particularly important for new teachers, who are learning to teach as they work and are forming judgments about their current job and future career (Feiman-Nemser, 1983; Gold, 1996; McDonald & Elias, 1983).

NEW TEACHERS, THEIR SCHOOLS, AND THEIR COLLEAGUES

Studies across decades document the difficulties new teachers face at the start of their career (Brown, 2000; Gold, 1996; Grossman, 1990; Kane, 1991; Lortie, 1975; Ryan, 1970; Ryan et al., 1980; Veenman, 1984; Wideen, Mayer-Smith, & Moon, 1998). The "sink or swim" (Lortie, 1975) expectations that have characterized new teachers' entry undermine these novices' efforts to be effective in the classroom. This warrants careful attention because, as they decide whether to stay at their schools and in teaching, new teachers assign great weight to whether they feel they can succeed with their students (Johnson & Birkeland, 2003).

Despite research in the 1970s and 1980s that described teachers' work as isolated (Goodlad, 1984; Lortie, 1975; Powell, Farrar, & Cohen, 1985; Sizer, 1984), there is evidence that teachers long for professional colleagues (Barth, 1991; Johnson, 1990; Johnson & The Project on the Next Generation of Teachers, 2004). Researchers have found relationships between the presence of collegiality and students' success. Newmann and Wehlage (1995), for example, found that the most successful schools they studied created "opportunities for teachers to collaborate and help one another achieve the purpose; and teachers in these schools took collective—not just individual—responsibility for student learning" (p. 3). Louis, Kruse, & Marks (1996) found that teachers' individual pedagogical talents and skills can be reinforced by a professional community that promotes school improvement. They concluded: "While well-designed school restructuring efforts may stimulate teachers' enthusiasm and satisfaction in their work, without professional community, most individual teachers will find it difficult to sustain the level of energy needed to

reflect continually on and improve their practice for the benefit of authentic student achievement" (p. 179). Little found that students performed better in schools where teachers work collegially (1982), engaging in "joint work" and sharing responsibility for instruction and outcomes (1990). Goodlad's (1984) extensive study of schools led him to the "proposition that 'everything,' presumably the quality of education provided by a school, depends on the interaction between teachers..." (p. 178).

Such interaction takes place in the context of school organizations, through structures that provide opportunities for teachers to work together and through cultures that support, or alternatively, undermine that collaborative work. Both structures and culture are important, since structures such as mentoring or meetings, in themselves, are not sufficient to ensure the professional interaction and collective responsibility among teachers across experience levels, which new teachers need to thrive (Kardos et al., 2001).

Similarly, in analyzing NCES *Schools and Staffing Survey* data, Ingersoll (2000) found little relationship between teachers' reports of having a mentoring program in their school and finding effective assistance. Subsequently, Ingersoll (2001a) showed that there was a strong, positive relationship between teachers' reports of the usefulness of the assistance they received and their retention. In follow-up work on induction, Smith and Ingersoll (2003) found that beginning teachers with same-subject mentors and collective induction experiences (including collaborative work with other teachers) were less likely to leave their schools and teaching than those who did not have same-subject mentors and collective induction experiences. What has emerged is a link between the sustained interaction about teaching that occurs among colleagues at all experience levels and the retention of new teachers.

PROFESSIONAL CULTURE AND NEW TEACHERS' SCHOOL-SITE EXPERIENCES

In a previous qualitative study of 50 new Massachusetts teachers, we found that three patterns emerged as our respondents described their experiences with colleagues (Kardos et al., 2001). Some new teachers told of working in what we came to call *veteran-oriented professional cultures*, in which the modes of professional practice are determined by the veteran faculty. Although their veteran colleagues might be socially friendly, professional norms of privacy and autonomy prevailed. Thus, new teachers reported that experienced teachers rarely collaborated with them or discussed their work in any depth. As a result, these new teachers lacked

the guidance of experienced teachers about what or how to teach. Other new teachers described what we called *novice-oriented professional cultures*, in which our respondents were part of a large group of new teachers?usually in charter schools or reconstituted urban public schools. The views and values of new teachers dominated this professional culture, which was replete with idealism and energy. In many cases, experienced teachers simply were not present in substantial numbers to be influential in these schools, or sub-units of schools. As a result, these novice teachers operated without the benefit of the professional wisdom or expertise that experienced colleagues might provide. The experience of new teachers in novice-oriented professional cultures is quite different from that of new teachers in veteran-oriented professional cultures, yet the result is the same: new teachers lack the guidance of experienced teachers about what or how to teach.

INTEGRATED PROFESSIONAL CULTURE

In contrast, some new teachers described working in what we called an *integrated professional culture*. In this environment, there was ongoing, two-way interaction about teaching and learning among novices and experienced teachers. New teachers were granted special status as novices: they were given assistance, encouraged to seek help, and expected to be learning and improving their teaching practice. In addition, new teachers and their colleagues shared responsibility for the school, its students, and each other. Integrated professional cultures enabled both novice and veteran teachers to succeed in their work, and new teachers felt sustained and supported by their experienced colleagues. Notably, respondents whose accounts suggested that they worked in an integrated professional culture did not describe participating in isolated mentor meetings or support sessions attended exclusively by new teachers. Nor did they describe relying on a single teacher in their school who served as confidante, savior, or friend. Instead, they described a pervasive mode of professional practice including teachers of various levels of experience.

Within integrated professional cultures, formal support structures were more than *pro forma*. The teachers reported that mentoring relationships were meaningful and supportive; classroom observations and feedback were frequent and helpful; and meetings among teachers focused on important issues of teaching and learning. What was important was not that these structures were in place, but that they functioned within the context of an integrated professional culture. Through participating

in these structures, new teachers learned what was expected of them and how to meet those expectations; they engaged in reciprocal exchange with experienced colleagues about curriculum and instruction; and they got the support they thought they needed. Linda Darling-Hammond (1999) reports that "beginning teachers who have access to intensive mentoring by expert colleagues…become more competent more quickly" and are more likely to stay in teaching (p. 20). Our interview data suggested that, in order to be useful to new teachers, mentoring, as well as any other structures intended to support them, must be embedded in an integrated professional culture. Otherwise, their day-to-day experience is isolated and uninformed.

In addition to finding that new teachers in integrated professional cultures felt more supported in their work, our data suggested that new teachers who experience integrated professional cultures were more likely to continue to teach in public schools and to remain in their school. Of the 50 new teachers we interviewed during the 1999-2000 school year, 88 percent of those working in integrated professional cultures remained in public school teaching the following year (compared to 76 percent of those working in veteran-oriented cultures and 83 percent in novice-oriented cultures) and 82 percent stayed in their original schools (compared to 57 percent of those working in veteran-oriented cultures and 67 percent in novice oriented cultures). This qualitative data drawn from a purposive sample led us to further examine new teachers' experiences with their colleagues using quantitative methods and a representative random sample of new teachers who work in other states.

RESEARCH DESIGN[3]

SITES

We conducted this research in four states: California, Florida, Massachusetts, and Michigan, which share certain characteristics. All are experiencing some degree of teacher shortage; all have alternative routes to certification; all have charter school legislation; all have adopted standards in core subjects; all use criterion-referenced assessments aligned to standards; and all are collective bargaining states. Table 1 summarizes state-level data from the reports of *Education Week's* "Quality Counts 2003" (2003).

Table 1: Summary of Selective State Level Characteristics for California, Florida, Massachusetts, and Michigan, 2002.

This data comes from the state data and state reports of *Education Week*'s "Quality Counts 2003: The Teacher Gap" (2003).

	CA	FL	MA	MI
SIZE				
Number of Public Schools	8,757	3,231	1,898	3,743
Number of Public School Teachers	305,000	136,000	69,000	97,000
Number of Public School Students (pK-12)	6,248,000	2,500,000	980,000	1,734,000
Percent of Students in Elementary Schools with 350 or Fewer Students (2001)	6%	3%	27%	28%
Percent of Students in High Schools with 900 or Fewer Students (2001)	11%	6%	33%	37%
SELECTED STUDENT DEMOGRAPHICS				
Percent Minority Students	63%	47%	24%	25%
Percent Children in Poverty	23%	22%	14%	17%
Percent Students with Disabilities	11%	15%	16%	13%
Percent English-language Learners	25%	10%	5%	3%
SELECTED STUDENT ACHIEVEMENT AND SPENDING				
Percent of 8th Graders Scoring at or above proficient on NAEP math (2000)	18%–TOTAL 27%–White 4%–Black 7%–Hispanic	N/A	32%–TOTAL 37%–White 8%–Black 14%–Hispanic	28%–TOTAL 35%–White 2%–Black 9%–Hispanic
Statewide Graduation Rates	66%	55%	73%	N/A
State Average Education Spending per Student (adjusted for regional cost differences)	$8,479	$8,429	$6,161	$6,512
SELECTED TEACHER PAY AND PREPARATION				
Average Teacher *Starting* Salaries, Adjusted for the Cost of Living (2001)	$27,177	$27,387	$27,198	$30,188
Average Teacher Salaries, Adjusted for Cost of Living (2001)	$43,061	$40,604	$41,773	$51,868
Number of Teacher Participants in State Alternative Route Programs	7,098	180	200	N/A
Percent of Teacher Graduates from NCATE-accredited Teacher Education Programs (2001)	58%	79%	76%	69%
CHARTER SCHOOLS				
Number of Charter Schools	452	232	47	186

Where a cell contains "N/A," data was not available.

The states, which are located in different regions of the country, vary considerably in geographic size, average size of schools, composition of student populations, student achievement, per pupil spending, teacher salaries, teacher preparation, and in the number of the states' charter schools. California has more than four times more public schools and more than six times more public school students than Massachusetts. Approximately one-quarter of the students in Massachusetts and Michigan are minority students, while 47 percent in Florida and 63 percent in California are minority students. While in Massachusetts and Michigan less than 5 percent of the students are English language learners, 10 percent of Florida's students and 25 percent of California's students are English language learners. Students in Massachusetts and Michigan tend to go to smaller schools: over one-quarter of the elementary school students in those states are in schools with fewer than 350 students, while only 3 percent of Florida elementary school students and 6 percent of California elementary school students attend small schools. Approximately one-third of high school students in Massachusetts and Michigan attend schools with fewer than 900 students, with only 6 percent in Florida and 11 percent in California doing so. California has the lowest proportion of eighth graders attaining proficient scores on the NAEP math test (18 percent), and Michigan has the largest gap between the proportion of white students attaining proficient scores (35 percent) and black students (2 percent). Average *starting* salaries for teachers are approximately the same across all four states, with Michigan salaries being a little higher. *Average* teachers' salaries are approximately $10,000 higher in Michigan than in the other three states. Florida has five times as many charter schools as Massachusetts and about half as many as California. California has approximately 35 times as many teachers participating in state alternate route programs than Florida and Massachusetts. California has the lowest percentage of teachers graduated from NCATE-accredited teacher education programs at 58 percent, and Florida has the highest, at 79 percent.

THE SAMPLE

The sample consists of 486 first-year and second-year full-time, K-12 public school teachers (including foreign language and special education, excluding arts and physical education) from the four states (California, Florida, Massachusetts, and Michigan). To draw the sample, we used two-stage stratified cluster sampling (Levy & Lemeshow, 1999; Light, Singer, & Willett, 1990; Rea & Parker, 1997), which we had pilot-tested in New Jersey (Kardos, 2001; Liu & Kardos, 2002). In Stage 1 of our sampling

process, we stratified the sample by state, school level (elementary, middle, high)[4], and school type (charter, non-charter), in order to ensure adequate representation along each stratum. We drew a total of 258 schools: 59 in California, 58 in Florida, 62 in Massachusetts, and 79 in Michigan.

Analysis of patterns of response and non-response suggest that the sample is reasonably representative. To explore possible sources of selection bias, we used data from our survey and public sources to compare the group of responding schools to the group of non-responding schools, and the group of responding teachers to the group of non-responding teachers.

There are no statistically significant differences between responding and non-responding schools in terms of the following measures: average faculty size, average size of student population, percentage of students eligible for free or reduced price lunch, eligibility for Title I funds, and percentage of black and Hispanic students. This is true for both the full four-state sample and the individual state samples. One possible source of bias, however, is school level. In California, the group of responding schools included a much lower proportion of middle schools than the group of non-responding schools. In Florida, the responding schools included a higher proportion of elementary schools and a lower proportion of middle schools than the non-responding schools. However, in Massachusetts and Michigan, there appear to be no significant group differences in school level.

In Stage 2 of our sampling process, at the level of the individual teacher, there are no (or very minor) differences between responding teachers and non-responding teachers in terms of the following: gender, teaching experience (first year or second year), school type (charter school or conventional), grade level, primary teaching assignment, and school locale (urbanicity). One notable exception is that in Michigan, non-respondents were more likely than respondents to teach in urban schools and in schools with higher proportions of black and Hispanic students.[5]

MEASURES AND DATA ANALYSIS

The instrument used in this analysis is a mail survey containing 18 general information questions, 18 items on teacher satisfaction, 8 items on teacher career decision-making, and 92 items about professional culture. The instrument also contains a section on teacher hiring not used in this analysis. These questions are based on a review of the literature and a prior qualitative study (Kardos et al., 2001). The instrument was pilot-

tested in a study of 110 New Jersey teachers (Kardos, 2001; Liu & Kardos, 2002).[6]

The "Professional Culture" section of the survey instrument includes questions on formal and informal mentoring, classroom observations, official and informal meetings, teacher interaction, novice status, collective responsibility, and the principal. Only data from questions about teacher interaction, novice status, and collective responsibility are presented and interpreted here.[7] A few of the teacher interaction items were categorical questions; however, most items about teacher interaction and all items about novice status and collective responsibility were measured on a 6-point Likert scale, ranging from "1=disagree strongly" to "6=agree strongly." The survey was administered, by mail, during the spring of 2002.

To interpret new teachers' experiences with their colleagues at their schools, we used the concept of integrated professional culture, focusing on its main features. We sought to describe, in a generalized way, the extent to which new teachers experience the separate features of integrated professional culture: ongoing collaboration with experienced colleagues; novice status; and collective responsibility for students and the school. We conducted descriptive analyses of the questionnaire data and summarized new teachers' experiences in a series of comparative tables, which describe the individual items and differences by state.

FINDINGS

We present these findings in three sections consistent with the three main features of integrated professional cultures. First, we summarize the ways in which new teachers work (or do not work) with their colleagues. Second, we summarize the degree to which new teachers are granted special status as novices in their schools. Third, we summarize the degree to which new teachers and their colleagues share a sense of collective responsibility for their students and for each other.

NEW TEACHERS AS SOLO PRACTITIONERS

First, we sought to examine the extent to which new teachers interact with their experienced colleagues, and to consider their interactions in light of our conceptualization of integrated professional cultures. Our research indicates that new teachers in integrated professional cultures—where they interact with their experienced colleagues in an ongoing and reciprocal way—are more likely to get needed support in their work and are more likely to stay in their schools as opposed to new teachers work-

ing in other types of professional cultures (Johnson & The Project on the Next Generation of Teachers, 2004; Kardos et al., 2001). Thus, we sought to examine the ways in which new teachers describe how they work or do not work with other teachers.

Nearly half of the teachers in the four states (49 percent) report that they plan their lessons and teach their classes alone. This is bad news given that, for most, teaching is too complicated an art and craft to be mastered in isolation (McLaughlin, 1993). The frustrations associated with new teachers' early career failures are partially responsible for their turnover, whether they decide to transfer to a different school or leave teaching altogether (Johnson & Birkeland, 2003). New teachers' early struggles can be moderated by sustained, substantive interactions with their experienced colleagues since new teachers have much to gain from their experienced colleagues' shared wisdom and expertise (Johnson & The Project on the Next Generation of Teachers, 2004; Kardos et al., 2001).

As Table 2 shows, approximately one-half of the new teachers in California (48 percent) and Michigan (50 percent), and approximately two-thirds of the new teachers in Florida (63 percent) and Massachusetts (67 percent) reported that they usually plan and teach alone. Although these proportions may seem high, they are not likely to surprise teachers

Table 2: New Teachers' Descriptions of the Ways in which They Work, or Do Not Work, with Their Colleagues, by State.

Items were measured on a 6-point Likert scale. All estimates are population estimates with standard errors presented in parentheses.

	CA n=112	FL n=113	MA n=144	MI N=117	4 States n=486
	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly
I usually plan and teach alone.	48% (5.4)	63% (8.9)	67% (5.7)	50% (6.7)	49% (4.8)
I usually **plan** for classes with another teacher or teachers.	27% (5.2)	25% (8.4)	16% (5.2)	37% (7.7)	27% (4.6)
I frequently **co-teach** or **partner** with another teacher.	49% (7.1)	19% (5.4)	20% (5.7)	40% (7.7)	46% (6.2)
I usually **discuss** teaching strategies with another teacher or teachers.	50% (7.6)	40% (9.1)	40% (6.9)	61% (8.7)	50% (6.8)
The new teachers and the experienced teachers work together.	52% (5.5)	49% (9.5)	51% (6.8)	50% (9.7)	52% (4.9)

All statistics take into account the complex nature of the survey sample.

or others who are familiar with the way work is done in most schools (Elmore et al., 1996; Goodlad, 1984; Johnson, 1990; Little, 1990; Lortie, 1975; McLaughlin, 1993; Sizer, 1984; Troen & Boles, 2003). Consider, for example, Massachusetts: two out of three new teachers in Massachusetts (67 percent) say that they usually plan and teach alone, despite the fact that they are trying to learn how to do their job within the challenging context of standards-based reform and high-stakes, statewide testing. Indeed, a closer look at new teachers' responses about their work with their colleagues suggests that many teachers may perceive themselves to be solo practitioners in their schools. Barely half of the new teachers in all four states (52 percent) report that—in their schools—new teachers and experienced teachers work together (see Table 2, Row 5). Only 27 percent of the new teachers report that they usually *plan* for classes with a colleague or colleagues (Row 2), and less than half (46 percent) report that they *co-teach* or *partner* with a colleague (Row 3). Finally, just 50 percent of new teachers *discuss* teaching strategies with their colleagues (Row 4).

Florida also serves as an illustrative example. Forty percent of new teachers there say they usually discuss teaching strategies with a colleague or colleagues (50 percent in CA, 40 percent in MA, 61 percent in MI), while only 25 percent say they usually plan for classes with a colleague or colleagues (27 percent in CA, 16 percent in MA, 37 percent in MI), and 19 percent say they co-teach or partner (49 percent in CA, 20 percent in MA, 40 percent in MI). Forty-nine percent of the new teachers report working with experienced teachers, a percentage that is generally consistent across the four states. Notably, over half of the new teachers in both Florida and Massachusetts *disagreed* or *disagreed strongly* with the statements, "I usually plan for classes with another teacher or teachers" (54 percent in FL and 58 percent in MA)[8] and "I frequently co-teach or partner with another teacher" (60 percent in FL and 53 percent in MA).[9]

NEW TEACHERS AS EXPERT AND INDEPENDENT

We also sought to examine the extent to which new teachers are granted special standing in the school because of their inexperience. "Novice status," as we have called it (Kardos et al., 2001), is not an official designation, nor is it negative. Instead, it suggests a set of formal practices or prevailing attitudes about new teachers that recognize and accommodate their needs as beginners. A new teacher with novice status is expected and encouraged to seek help, is provided with extra assistance, and is given roles appropriate to her or his experience and expertise. New teachers with novice status are sheltered somewhat from the full range of

responsibilities shouldered by their more experienced colleagues. In schools where new teachers are granted novice status—as in schools with integrated professional cultures—they are offered extra assistance, encouragement, and sustained support to improve their teaching.

However, as summarized in Table 3, we found that, in general, new teachers perceive that they are expected to be expert and independent, even in their earliest years of teaching. Surprisingly, low percentages of new teachers report that extra assistance is available to them, ranging from 28 percent in Michigan to 45 percent in California (34 percent in MA and 35 percent in FL). Only approximately one-half to two-thirds of new teachers (54 percent in MA; 55 percent in FL; 63 percent in MI; and 65 percent in CA) reported that they are expected and encouraged to seek help from their colleagues (see Table 3, Row 1). Nearly half (44 percent in CA; 46 percent in MA; 48 percent in MI; and 52 percent in FL) believe that new teachers in their schools are expected to be as effective as experienced teachers (Table 3, Row 2). And only one-third to just under one half (34 percent in FL; 41 percent in MI; 47 percent in CA and

Table 3: Proportions of New Teachers who Agree or Agree Strongly on Certain Aspects of their Status as Novices, by State.
Items were measured on a 6-point Likert scale. All estimates are population estimates with standard errors presented in parentheses.

	CA n=112	FL n=113	MA n=144	MI N=117	4 States n=486
	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly
I am expected and encouraged to seek help from other teachers.	65% (6.09)	55% (10.01)	54% (6.71)	63% (5.66)	64% (5.40)
New teachers are expected to be as effective as experienced teachers.	44% (6.81)	52% (8.61)	46% (7.77)	48% (7.25)	44% (6.04)
It is expected/understood that new teachers will learn to teach gradually, over time.	47% (5.83)	34% (6.91)	47% (7.31)	41% (6.08)	46% (5.16)
As a new teacher, extra assistance is available to me.	45% (6.73)	35% (6.77)	34% (6.47)	28% (4.82)	44% (5.94)
Typically, there is not enough time available to me for planning and preparation.	53% (7.28)	59% (5.73)	49% (6.97)	28% (7.02)	52% (6.45)
For a new teacher, my teaching workload is too heavy.	37% (6.68)	37% (4.83)	26% (6.92)	15% (5.62)	36% (5.94)
I have fewer official responsibilities than an experienced teacher.	24% (8.39)	17% (3.98)	9% (2.48)	14% (5.46)	23% (7.44)

All statistics take into account the complex nature of the survey sample.

MA) believe that it is expected that new teachers will learn to teach gradually over time (Table 3, Row 3).

In addition to reporting that they are expected to be as effective as their experienced colleagues, large proportions of respondents say they are supposed to attain this expertise independently. Large proportions of new teachers do not have access to extra assistance; only 28 percent of new teachers in Michigan, 34 percent in Massachusetts, 35 percent in Florida and 45 percent in California report that, as new teachers, extra assistance is available to them (Table 3, Row 4). And notably, very low proportions report that they have fewer official responsibilities than experienced teachers (9 percent in MA, 14 percent in MI; 17 percent in FL; and 24 percent in CA. Table 3, Row 7). Moreover, 15 percent of respondents in Michigan and 37 percent in California and Florida report that they find their workload too heavy for them as new teachers (Table 3, Row 6). The 15 percent figure is arguably low in Michigan; however, over one-quarter of the new teachers in Massachusetts and over one-third of the new teachers in Florida and California think that, for new teachers, their workload is too heavy. Twenty-eight percent of respondents in Michigan and 59 percent in Florida report that there is not enough time available for them to plan and prepare for their classes adequately (Table 3, Row 5).

What might account for the wide state-by-state differences?

There are notable contrasts between the responses of the new teachers in California and Florida. In California, 65 percent of new teachers report that they are encouraged to seek help from other teachers. In contrast, in Florida, only 55 percent do. Forty-four percent of California's new teachers believe that new teachers are expected to be as effective as experienced teachers; in Florida, 52 percent do. In California, 47 percent believe that it is understood that new teachers will learn to teach gradually over time. In Florida, however, only 34 percent do. Finally, in California, 45 percent of respondents report that, as new teachers, extra assistance is available to them, whereas in Florida, only 35 percent do. What might account for these differences?

California has notably made an effort to respond to new teachers' needs by requiring and funding statewide induction programs under the Beginning Teacher Support and Assessment System (BTSA). This may explain the fact that nearly two-thirds of the new teachers in California report that they are encouraged to seek help from other teachers. However, less than half report that extra assistance is actually available to them. In contrast, when this data was collected, Florida had no induction

or mentoring requirements for new teachers (Quality Counts, 2003). Just over half of the new teachers in Florida report that they are encouraged to seek help from other teachers, and only one-third report that extra assistance is available to them. Relatively small proportions of new teachers in these states seem to be encouraged to seek extra help or to have extra assistance available to them. However, California's statewide induction program may explain why higher proportions of new teachers in California perceive themselves as having novice status, being encouraged to seek help, and having extra assistance available.

NEW TEACHERS AND SHARED RESPONSIBILITY FOR THE SCHOOL

In integrated professional cultures, teachers—both new and experienced—share a sense of collective responsibility for the school and its students. This orientation stands in opposition to the idea of teachers operating as free agents, where their work with students is disconnected from the work of other teachers, and from the collective work of the school. However, in schools where teachers share responsibility for the school and its students, new teachers are inducted into a professional culture that values cooperation and a unified approach to success (Bryk & Driscoll, 1988; Bryk & Schneider, 2002). In this type of culture, new teachers do not hide their successes and failures behind the closed doors of their classrooms, but instead seek and receive help from others and contribute their talents and energies to the greater life of the school (Johnson & The Project on the Next Generation of Teachers, 2004). We sought to examine the extent to which the new teachers in four states experienced this shared sense of responsibility, and we found that a large percentage of new teachers do not. They are not part of a unified effort in their schools, perhaps because they have no "team" to join.

The survey items summarized in Table 4 contribute to the concept of collective responsibility. The first item is meant to capture new teachers' perceptions of the faculty's shared responsibility for student learning: "Teachers act as if they are responsible for students' learning, even for those who are not in their classes." The second item is intended to capture new teachers' perceptions of their fellow teachers' sense of responsibility for one another: "My colleagues think it is important for teachers to work together." The third is designed to capture respondents' perceptions of teachers' sense of responsibility for the school, in general: "Rules for student behavior are enforced by teachers, even for students who are not in their classes." And the final item is meant to capture new teachers' perceptions of overall teacher engagement in the school community: "My

colleagues participate in school activities outside the primary responsibilities of their classes."

Table 4: Proportions of New Teachers who Agree or Agree Strongly that the Teachers in their Schools have a Sense of Collective Responsibility, by State.

Items were measured on a 6-point Likert scale. All estimates are population estimates with standard errors presented in parentheses.

	CA n=112	FL n=113	MA n=144	MI N=117	4 States n=486
	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly	Agree or Agree Strongly
Teachers act as if they are responsible for students' learning, even for those who are not in their classes.	45% (5.46)	38% (6.16)	34% (6.36)	45% (8.17)	44% (4.85)
My colleagues think it is important for teachers to work together.	59% (6.56)	48% (9.63)	46% (6.65)	62% (9.94)	59% (5.84)
Rules for student behavior are enforced by teachers, even for students who are not in their classes.	66% (5.52)	61% (7.01)	56% (6.63)	69% (8.22)	66% (5.15)
My colleagues participate in school activities outside the primary responsibilities of their classes.	58% (5.77)	50% (8.78)	52% (5.98)	45% (7.65)	57% (5.12)

All statistics take into account the complex nature of the survey sample.

The data also suggests that teachers do not always act on their presumed values. For example, approximately three-fifths of the new teachers in California and Michigan (59 percent and 62 percent respectively) and under one-half of the new teachers in Florida and Massachusetts (48 percent and 46 percent respectively) report that their colleagues think it is important for teachers to work together. However, less than half of the new teachers in California (45 percent) and Michigan (45 percent), and just over one-third of the new teachers in Florida (38 percent) and Massachusetts (34 percent), report that teachers in their schools *act* as if they are collectively responsible for student learning. Higher proportions of new teachers in all four states report that rules for student behavior are enforced by teachers school-wide, ranging from 56 percent in Massachusetts to 69 percent in Michigan. The proportion of new teachers who report that teachers participate in or attend school-sponsored

activities ranged from 45 percent in Michigan to 58 percent in California.[10]

These sorts of responses indicate that, in fact, large proportions of new teachers work in schools where they do not see their colleagues acting with a sense of responsibility for students who are not their own. Many are in schools where they believe their colleagues do not think it is important for teachers to work together. Apparently, many teach in schools where they cannot count on their colleagues to help them implement school-wide policies. These conditions leave the new teacher "off-line," not networked or integrated into a cohesive system of colleagues who share responsibility for the students and school as a community.

SUMMARY AND IMPLICATIONS

This article describes new teachers' experiences with their colleagues, particularly their experienced colleagues. Consistent with the three main features of integrated professional culture, we summarized the ways new teachers work with their colleagues; the degree to which new teachers are granted special status as novices in their schools; and the degree to which new teachers and their colleagues share a sense of collective responsibility for their students and for each other. Taken together, the new teachers' reports show them working as solo practitioners, expected to be prematurely expert and able to work without the support of a school-based professional network. In integrated professional cultures, new teachers interact with experienced colleagues in an ongoing and reciprocal way. However, in the four states studied, we found that approximately one-half (in CA and MI) to two-thirds (in FL and MA) of new teachers generally plan and teach alone. Whereas new teachers in integrated professional cultures are recognized as novices and offered extra assistance and sheltered opportunities to improve their craft, we found that approximately one-third to one-half did not think that they were expected or encouraged to seek help from other teachers. Less than one-third (28 percent) to less than one-half (45 percent) reported that extra assistance was available to them. Thus, overall, new teachers are not granted the kind of novice status consistent with an integrated professional culture. Finally, in integrated professional cultures, teachers share a sense of collective responsibility for the school, its students, and each other. However, less than half of the new teachers in the four states (44 percent) reported that teachers share responsibility for the students in their school and just under three-fifths believe that their colleagues think it is important for teachers to work together.

Taken together, these findings reveal that many new teachers in California, Florida, Massachusetts, and Michigan find themselves working without the support of integrated professional cultures. Even in states such as Massachusetts and California, which have mandated induction and mentoring programs, large proportions of new teachers report that they are left to do the very difficult work of teaching with little direct or organized involvement from their experienced colleagues. Given these findings, what can those interested in teacher retention and school improvement do, both in the policy arena and in the schools, to address the critical challenge of supporting new teachers?

In response to some of the difficulties new teachers face, policymakers have rightly invested in policies and programs specifically aimed at new teachers, such as mentoring and induction programs. There is evidence that, when carefully conceived and properly implemented, these programs can benefit new teachers (Berry, Hopkins-Thompson, & Hoke, 2002; Britton, Raizen, Paine, & Huntley, 2000; Fideler & Haselkorn, 1999; Johnson & The Project on the Next Generation of Teachers, 2004; Smith & Ingersoll, 2003). Therefore, such programs seem to be a wise investment of public funds. However, as we saw in California, it is not enough that a state-funded mentoring program exists if less than one-half of the new teachers in that state report that extra assistance is available to them. Although it is crucial that policymakers provide for programs that support new teachers, these programs must be focused on schools and classrooms where new teachers engage every day in their work with their students and their colleagues. Therefore, it is up to states and districts to make sure that funds for induction and mentoring programs make it to the school. And once resources are explicitly targeted at the new teachers' schools and classrooms, it is up to school leaders to see that these programs formally address the teaching challenges that new teachers face.

But how? As our findings suggest, many new teachers tend to be (a) isolated in their classroom work, (b) presumed expert, and (c) not part of a collective, school-wide effort. It is quite a challenge for school leaders not only to create and implement programs and structures to support new teachers, but also to promote professional cultures that enable those structures to work on behalf of teachers and students. Such a professional culture includes a set of beliefs and correspondent modes of professional practice that value teacher interaction across experience levels, recognize new teachers' particular needs, provide the needed assistance, and cultivate a sense of shared responsibility among teachers for the students and the school.

To create such a culture of professional support and commitment,

principals need to earmark resources—money, time, space, supplies, technical assistance—that support such structures as mentoring, collaborative planning time, and classroom observations. They also must cultivate the culture in which these resources can be most useful. Principals and administrators might consider how best to engage experienced teachers in the sustained induction of new teachers and in their own professional growth. The ongoing interaction between new and experienced teachers is, after all, a key feature of the kind of culture most supportive of new teachers. This could be done through having novice and experienced teachers share common teaching assignments and work together on curricular lessons. Likewise, they could collaborate on analyzing school test data, setting school-wide goals, integrating technology into the curriculum, and creating or adapting supplementary programs to assist students in need. Finally, they could work jointly to assess, adapt, and create school-wide policies and programs. School leaders could facilitate new and experienced teachers' interaction through formalizing non-evaluative observations of one another, integrating curricular units, or even through the principals' own modeling of this sort of collaborative behavior. Principals and administrators also could authorize the expert teachers to assume leadership roles in supporting beginning teachers. This could be done through mentor assignments or the creation of lead-teacher roles, where expert teachers are expected to lead and are recognized and rewarded for doing so. This type of interaction across experience levels increases school capacity and enhances school improvement.

Principals and school leaders could promote professional cultures that support new teachers by paying closer attention to the particular needs of the new teachers in their buildings. New teachers need sheltered opportunities to improve their craft; they need access to additional help with their students, their teaching, and the encouragement to ask for this help from colleagues and administrators; and they need opportunities to contribute their special talents and skills to the school community. Principals and school leaders themselves could be actively engaged in visibly granting this sort of status to new teachers and deliberately creating the kind of professional environment where new teachers' needs are recognized and met, both by establishing formal programs for new teachers and also by challenging the time-worn "sink or swim" approach.

Finally, it is up to school leaders to foster among the teachers in the school a shared sense of responsibility for the students and for the school itself. In these types of school communities—where the focus is on teaching and learning—teachers take collective responsibility for the success of the students and each other. In schools where principals are on a

mission of school improvement that all teachers join, new teachers have colleagues with whom to work toward a common goal.

More research certainly needs to be done, since we need to know more about how new teachers experience the mentoring and induction programs set up to support them in their early years. We need to know more about the effect of these programs on their satisfaction, their sense of efficacy, their retention, and their students' achievement. We also need to know more about how to foster the types of professional cultures that best support new teachers, and we need to understand how to make them flexible and responsive to the changing needs of incoming groups of teachers and remaining experienced teachers. As we learn more, policymakers and practitioners can act on what we do know. Creating different, better conditions in which new teachers can thrive will depend on money targeted to promote programs (especially induction and professional development programs) in schools. It will also depend upon the leadership and participation of principals, veteran teachers, and the new teachers themselves. Only when public schools support new (and experienced teachers) through both organizational structures and workplace cultures will schools be viable workplaces for the next generation of teachers and their students.

Notes

1. The estimated cost of teacher attrition varies widely, depending on the analytic methods used. For a more detailed discussion of the studies providing estimates, see Johnson, Susan Moore; Berg, Jill Harrison; & Donaldson M. L. (2004). "Who stays in teaching and why: A review of the literature on teacher retention," Washington, D.C.: NRTA, AARP's Educator Community.
2. Professional culture is distinct from organizational culture in that it refers to the workplace culture experienced by the professionals (teachers, administrators, and specialists) at the school, rather than the entire organizational culture (or school culture/climate), which would also include students.
3. We worked with Edward Liu to collaboratively design this 4-state study and the 1-state New Jersey study on which it is built (Kardos, 2001; Liu & Kardos, 2002). Special thanks also to John B. Willett.
4. Elementary, middle, and high schools differ in ways likely to affect professional culture such as organizational structure (Rowan, 1990). It is, therefore, important to ensure that the sample does not contain a disproportionate number of high schools, which might result from just sampling proportional to size.
5. More detailed information on sampling and response is available from the authors.
6. Additional information on the instrument development is available from the authors.
7. In the presentation of the data which follows, tables contain verbatim question stems.

8. The standard error for the MA statistic is 6.17, and the standard error for the FL statistic is 8.47.

9. The standard error for the MA statistic is 6.92, and the standard error for the FL statistic is 9.57.

10. Notably, Table 4 contains percentages that at first glance appear high, since many are near or above 50 percent. It is important to consider, in Row 2 for example, that while 59 percent of teachers surveyed agreed or agreed strongly that their "colleagues think it's important for teachers to work together," 41 percent did not. In fact, this is quite a large proportion.

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