

# **New Teachers' Experiences of Hiring: Late, Rushed, and Information-Poor**

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## **ABSTRACT**

Teacher hiring decisions have far reaching consequences for a school and its students and faculty, and yet there has been very little research on how teachers are hired. This article examines how new teachers in four states are hired and explores whether the process leads to good matches between these individuals and their schools. It presents findings from a random sample survey of 486 first-year and second-year teachers in California, Florida, Massachusetts, and Michigan. The data reveal that the majority of new teachers in these states are hired through a decentralized, school-based process. Despite the opportunity this provides schools and prospective teachers to explore the potential match between them, most new teachers actually have limited interactions with school-based personnel during the hiring process, and the process is information-poor. Many new teachers are also hired quite late—more than one third of new teachers in California and Florida are hired after the school year has already started.

## **INTRODUCTION**

In recent years, the issue of teacher quality has once again risen to the top of the school reform agenda. The federal *No Child Left Behind Act of 2001* (NCLB) introduced sweeping new regulations requiring that all teachers in core academic subjects be “highly qualified” by 2005-2006. These new mandates pose significant challenges for schools and districts, at a time when they are also seeking to hire 2.2 million new teachers over the course of the decade (Hussar, 1999).

The NCLB regulations fall in a long tradition of efforts to raise minimum standards for teachers. While improving teacher qualifications is important, it is also important to consider whether district hiring practices are effectively matching new teachers to schools and positions. The latter is crucial because no two schools and no two teaching positions are exactly alike. The skills, knowledge, and dispositions needed to be effective teaching A.P. Chemistry in an affluent, suburban, and homogeneous high school are different from those needed to teach untracked general science in a working-class, urban, and heterogeneous middle school. A new teacher’s effectiveness in working with students may thus depend on whether she has been hired into a job that is a good fit for her.

The quality of the fit between a new teacher and her position also has implications for her job satisfaction and retention. If a position does not closely match her preparation, interests, and preferences (regarding grade level, curricular approach, pedagogical philosophy, school culture, student population, etc.), she may not stay in it for long. The teacher may leave her position, or teaching altogether, if a poor fit compromises her effectiveness and her sense of success (Johnson & Birkeland, 2003).

In this paper, we explore how new teachers are being hired today and present findings from a four-state, random-sample survey of 486 new teachers. We conceive of hiring as a two-way process and examine the extent to which the hiring process provides opportunities for prospective teachers and schools to collect rich information about, and form accurate impressions of, one another—an important prerequisite for achieving good matches between individuals and schools.

The data reveal that the majority of new teachers in the four states are hired through a decentralized, school-based process. Despite the opportunity this provides to schools and prospective teachers to explore the potential match between them, most new teachers have limited interactions with school-based personnel as part of the hiring process. Although the vast majority of new teachers interview with the school principal, relatively few interview with teachers, department chairs, students, or parents at the school. Moreover, the hiring process relies heavily on paper credentials and interviews rather than direct observations of candidates' teaching. Only 7.5 percent of the new teachers in the four-states report that they were observed teaching a sample lesson as part of the hiring process; the individual state percentages range from 6.9 percent in CA to 19.6 percent in MA. Finally, many new teachers are hired quite late. In California and Florida, for instance, approximately one in three new teachers is hired after the start of the school year.

Thus, schools are not taking full advantage of decentralized hiring and its potential to improve the information exchanged between teaching candidates and those who do the hiring. The hiring process that many new teachers experience, while school-based, is rarely information-rich. As a result, new teachers in California, Florida,

Massachusetts, and Michigan report that they form only moderately accurate pictures of their schools, prior to accepting their initial teaching positions. This has implications for the fit between new teachers and their schools, and for new teacher effectiveness, satisfaction, and retention.

## **BACKGROUND**

Recent research suggests that public schools may not be hiring the best teaching applicants (Ballou, 1996; Ballou & Podgursky, 1998). Using pooled data from the *Surveys of Recent College Graduates* (1976-1991), Ballou (1996) found that certain indicators of a strong academic background “do little to improve [and, in some cases, hurt] the prospects of an applicant for a public school teaching position” (p. 120). This pattern, he notes, contrasts starkly with the patterns in other fields and suggests that, when hiring new teachers, “school districts...place little or no weight on measures of academic achievement and cognitive ability that are valued in other professions” (Ballou & Podgursky, 1997, p. 85). In order to make sense of puzzling patterns such as this, however, we need to know more about how school districts hire teachers.

Despite the importance of the topic, there has been little empirical research on how teachers are hired and even less on how new teachers experience the hiring process. The few studies that do exist are somewhat dated, having been conducted at a time of teacher surplus rather than shortage (David, 1988; Shivers, 1989; Wise, Darling-Hammond, & Berry, 1987). Moreover, they tend to analyze hiring from the perspective of districts and schools, thus depicting it as a one-way process in which schools evaluate

candidates, and obscuring the role hiring also plays in providing information and signals to applicants.

A recent report by the New Teacher Project (Levin & Quinn, 2003), a non-profit organization that works with school districts to improve staffing practices, has documented the negative effects of late hiring in four urban districts. The authors used applicant tracking data and telephone and e-mail surveys to quantify the length of hiring delays and examine their impact on applicant attrition. They found that although these districts were successful in recruiting large numbers of applicants, the drawn-out hiring process led many of the strongest candidates—candidates with the highest grade point averages and those who were able to teach shortage subjects—to drop out of the applicant pool. Their telephone surveys, however, achieved response rates of only 34 percent in one district and 36 percent in another.

### ***Hiring, Fit, and New Teacher Satisfaction***

Teacher hiring should properly be viewed as a two-way process in which schools and candidates exchange information and evaluate each other. This is important because two decisions need to be made. The school or district has to decide whether to extend a job offer, and the teaching candidate has to decide whether to accept a job if it is offered. For these two decisions to lead to a good fit between the new teacher and his school, both must be well informed.

Better matches—or closer fit between new teachers' skills, interests, and expertise and the positions that they secure—are important both for improving schools, as well as for improving teacher satisfaction and addressing teacher shortages. Over the past decade there has been growing consensus among researchers and policy makers about the value

of individual schools having more control over how they organize their work (Little, 1990; Murnane & Levy, 1996; Rosenholtz, 1989). Control over hiring decisions is said to be essential for building and maintaining effective teams, and for building organizational capacity (Newmann, Wehlage, & Rigdon, 1997).

Better matches between individuals and their teaching positions may also lead to more satisfying initial teaching experiences. In an earlier study, we found that many new teachers are approaching teaching tentatively or conditionally, rather than as a lifelong career (Peske, Liu, Johnson, Kauffman, & Kardos, 2001). If teaching does not fit their interests and skills, they may choose to leave after a short time. This is consistent with research in organizational behavior and management that has found links between person-organization or person-job fit and work outcomes such as job satisfaction and intentions to quit (Cable & Judge, 1996; Chatman, 1991; Kristof, 1996; O'Reilly, Chatman, & Caldwell, 1991; Rynes, Bretz, & Gerhart, 1991). None of these studies, however, has examined person-organization fit between teachers and schools. Moreover, as Kristof (1996) notes in her review of the person-organization fit literature, we still do not have a clear understanding of how specific recruitment or hiring activities affect levels of person-organization fit.

### **How Schools and Districts Organize Hiring**

How districts structure their hiring practices influences the opportunities schools and candidates have to exchange rich information about each other. Some districts rely on centralized processes, where hiring occurs at the district level. Others rely on decentralized processes, where hiring happens at the schools. As Arthur Wise (1987) and colleagues observe, districts balance two competing needs: “the central authority’s need

for efficiently managing school systems and effectively maintaining uniform district standards and... the local principals' need for effectively selecting candidates who best fit their particular schools" (p. 54).

In centralized hiring, administrators at the district office carry out most of the hiring activities and have overall responsibility for assigning new teachers to positions in schools throughout the district. Centralized processes often reflect an underlying concern for control, uniformity, and efficiency. As a result, districts that centralize hiring typically rely on standardized procedures for processing large batches of applications, and they tend to use generic job descriptions, standardized interview protocols, and/or criteria for evaluating candidates (Shivers, 1989; Wise et al., 1987).

One of the consequences of adopting a centralized approach, however, is that it often does not take into account the specific characteristics of teaching vacancies and the particular needs of local contexts (e.g., the student population served and the professional culture of the school). District officials instead focus on candidates' formal qualifications for certain job categories (e.g., elementary school teacher, reading specialist, high school math teacher). Indeed, in many cases, districts hire new teachers on the basis of their general qualifications and only later find a school for them (Wise et al., 1987). Thus, centralized hiring provides candidates with little or no information about their specific teaching assignments. In accepting a job offer, candidates are agreeing to work for a district, not a particular school. They have no interaction with their future colleagues before they are offered and accept a job.

In contrast, in decentralized hiring, individuals within schools carry out the screening activities and decide whom to hire. Thus, they can pay more attention, early in

the process, to whether candidates fit the requirements of a specific position, address the school's particular needs, and fit the culture of the school. Principals and teachers (and, sometimes, students and parents) often devise their own criteria, activities, and interview questions for evaluating candidates (Wise et al., 1987). Because decentralized hiring places candidates in direct contact with their future colleagues and supervisors, it has the potential to provide teaching candidates and schools with more (and better) information about one another and, thus, facilitate better matches between them. Decentralized hiring can thus be seen as an important prerequisite for an “information-rich” hiring process—i.e., a hiring process that provides both schools and candidates with rich, detailed information about one another.

Most school districts fall somewhere between these two extremes and divide hiring activities between the central office and the school site (Wise et al., 1987). Typically, early hiring activities, such as the initial screening of paper credentials, are performed by a district's central office, while others, such as the final decision about whom to hire for a specific position, are conducted by school-based administrators.

While the literature on teacher hiring includes valuable case studies that help us understand the various tradeoffs that districts make in organizing hiring, we know very little about the prevalence of different hiring practices and candidates' responses to them. In this paper, we thus address the following research questions:

1. How are new teachers currently being hired in California, Florida, Massachusetts, and Michigan? For instance, how prevalent is centralized hiring versus decentralized hiring? How information-rich is the hiring process?

2. Do new teachers report that the process they experienced provided them with accurate previews of their jobs and schools?
3. From the point of view of new teachers, to what extent do their current teaching positions provide a good fit with their individual interests, skills, and expertise?

## **RESEARCH DESIGN<sup>1</sup>**

We conducted this research in four states: California, Florida, Massachusetts, and Michigan. We chose these states because they share certain key policy features and because they are diverse in size, population, and geographic location. All four states 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. Notably, there is variation across the four states in terms of geographic region, student population, school size, student achievement, teacher salaries, per pupil spending, teacher participation in alternative routes to teaching, number of charter schools, and percent of teachers from accredited teacher education programs (see Appendix A).

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<sup>1</sup> This study is part of a larger survey study designed by Edward Liu and Susan Kardos, researchers at the Project on the Next Generation of Teachers. Collaboratively, they designed a survey that explored both new teachers' experiences of hiring and their experiences of professional culture (Kardos, 2001; Liu, 2002; Liu & Kardos, 2002).

## **Sampling and Data Collection Procedures**

The sample consists of 486 first-year and second-year, K-12 public school teachers (excluding Arts and Physical Education). To draw the sample, we used two-stage stratified cluster sampling (Levy & Lemeshow, 1999; Light, Singer, & Willett, 1990; Louis M. Rea & Richard A. Parker, 1997). In stage one of our sampling process, we stratified schools by state, school level (elementary, middle, high), 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. We over-sampled in the smaller states and under-sampled in the larger ones to enable us to conduct supplementary analyses within each state.<sup>2</sup> We also over-sampled charter schools to facilitate future subgroup analysis. In our analyses, we incorporated sampling weights to correct for the over- and under-sampling.

In order to improve the ultimate precision of parameter estimates in our analyses, we drew the sample of schools in proportion to the number of students in each school, which served as a proxy for the number of new teachers, an unknown quantity (Levy & Lemeshow, 1999). We contacted principals in each of the schools and asked for names and teaching assignments of all first-year and second-year teachers in their building. Seventy-two percent of the selected schools agreed to provide lists of teachers.<sup>3</sup>

All new teachers in each randomly selected school were included in the sample (stage two of our sampling process). We were given the names of 751 first-year and second-year teachers. We sent each new teacher an introductory letter quickly followed

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<sup>2</sup> In addition, we drew more schools in Michigan, because Michigan was experiencing less of a teacher shortage than the other three states, and had fewer new teachers per school.

<sup>3</sup> The school response rates for each state were: 64% in California; 71% in Florida ; 82% in Massachusetts schools; and 71% in Michigan.

by the questionnaire with an accompanying cover letter. As an incentive to participate, all respondents who returned completed surveys were sent a \$15 gift certificate for Amazon.com. We sent a series of reminders to non-respondents over the course of two months.<sup>4</sup>

We achieved a teacher response rate of 65% (486 teachers) using strategies devised in our pilot-study (Dillman, 1991; Kardos, 2001; Keiley, 1996; Liu, 2002).<sup>5</sup> Analysis of patterns of response and non-response suggests that we have a reasonably representative sample. 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 African-American and Hispanic students. This is true for both the full four-state sample and the individual state samples. 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).

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<sup>4</sup> Our mailing and communications strategy was modeled on Keiley (1996) who achieved a 91% response rate in her dissertation study.

<sup>5</sup> Our individual response rates for this 4-state study are as follows: 60% in CA; 63% in FL; 67% in MA; and 69% in MI.

We did find three possible sources of bias. 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.<sup>6</sup> At the teacher level, non-respondents in Michigan were more likely to teach in urban schools and schools with higher proportions of African-American and Hispanic students than respondents.

## **Measures**

We measured new teachers' experiences of hiring using an 85-item survey instrument that we administered to the sample of teachers. We designed this instrument based on a review of the hiring and questionnaire-design literatures (L. M. Rea & R. A. Parker, 1997; Sudman & Bradburn, 1982) and the *NCES School and Staffing Survey* (1999-2000). The survey instrument contains items that:

- request basic demographic information about the new teachers (Age, Gender, Race, Marital Status, Educational Level);
- request information from the new teachers about their teacher preparation, school workplace, current teaching assignments, career stage, and views on career;
- ask about the people with whom teachers interacted during the hiring process, the materials they were asked to submit, and the activities they were asked to do as part of their applications;
- ask new teachers to characterize, in broad terms, the type of hiring that they experienced from decentralized to centralized (a categorical variable, CENTRAL);

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<sup>6</sup> In Massachusetts and Michigan, there are no significant group differences in school level.

- ask new teachers about the fit between their skills, interests, and expertise and the positions they ultimately obtained;
- measure to what extent the hiring process provided candidates with information that might have helped them develop an accurate picture of the position and school;

Using item analysis and principal components analysis (PCA), we developed a composite variable, PREVIEW, to measure the extent to which new teachers felt they formed an accurate picture of their individual schools from the hiring process (Cronbach's alpha reliability = .89).<sup>7</sup> The composite was formed from the average of nine items that are each measured on a seven-point Likert scale, with "1" indicating strong disagreement and "7" indicating strong agreement.

We developed two other composite variables to measure the reported fit between new teachers and their positions (FITJOB) and between new teachers and their schools (FITSCH). These two measures have high levels of internal reliability—Cronbach's alpha is .73 for FITJOB and .83 for FITSCH—and their values range from 1 to 5, where 1=very poor match and 5=very good match.

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<sup>7</sup> PCA and reliability output is available upon request.

## **STATISTICAL ANALYSES**

In all of our data analyses, we use estimation methods that are appropriate for the complex design of our survey sample, with suitable cluster, strata, and sample weight designations incorporated into the analyses. These methods allow us to avoid biased point estimates and standard errors that might result from clustering and stratification effects. Treating schools as the principal sampling unit (PSU) in our analyses permits the residuals for teachers within a school to have a general error covariance structure, including the possibility that teachers within a school are not independent.<sup>8</sup>

Below, we summarize several measures of hiring, calculating descriptive statistics and displaying data in a series of tables for the combined four states and for each state individually. Because of its size, California dominates the four-state sample and the responses of California teachers are weighted quite heavily in calculations of averages or proportions for the full four-state sample. In reporting findings below, we break out data by state and indicate when state level differences are statistically and substantively important.

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<sup>8</sup> The variance estimators used in the *svy* commands in the STATA software package make minimal assumptions about the nature of the sample. They allow any amount of correlation among teachers within the primary sampling units (in our case, schools). Thus, teacher residuals within a school are not required to be independent.

## **PRESENTATION AND DISCUSSION OF FINDINGS**

### **How Teachers Are Being Hired: Decentralized But Information-Poor**

*Locus of Control and Activity.* Decentralized hiring is prevalent in the four states studied. Table 1 presents a summary of new teachers' responses to a question regarding the extent to which the hiring process they experienced was decentralized. A little less than half of new teachers (45.9 percent) in the pooled group of four states report experiencing a *highly decentralized* hiring process for their current position. These individuals applied directly to and were offered a position by a specific school. Another thirty-one percent (30.9 percent) report experiencing a *moderately decentralized* hiring process—i.e., they were first screened by the district central office but were then interviewed and offered a position by a specific school. Finally, between one fifth and one quarter of new teachers (23.2 percent) in the four states experienced either a *moderately or a highly centralized* hiring process. They were offered a job by the district central office, though afterwards some had to continue interviewing within the district to secure a specific teaching position, while others were assigned to a specific position by the central office.

**Table 1: Hiring Centralization/Decentralization**

New teachers' responses to a question asking them: "Which of the following best describes how you were hired for your current position?" (reported by total population of new teachers in the pooled group, and by state). Standard errors are in parentheses. Variable name: CENTRAL.

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
<b>HIGHLY DECENTRALIZED:</b> Applied directly to a specific school and was offered a position by that school.	45.9% (6.9)	44.6% (7.8)	57.6% (7.1)	80.0% (6.2)	45.8% (7.2)
<b>MODERATELY DECENTRALIZED:</b> Screened by district central office (with no guarantee of job), then interviewed with and offered a job by a specific school.	30.9% (5.4)	30.9% 6.1)	31.1% (5.7)	11.6% (3.7)	36.9% (5.3)
<b>MODERATELY CENTRALIZED:</b> Offered a job by district office, then had to interview in the district to find a specific teaching position.	11.2% (4.3)	11.8% (4.8)	9.5% (3.4)	2.7% (1.7)	4.6% (2.8)
<b>HIGHLY CENTRALIZED:</b> Offered a job by district central office, then assigned to a specific school by district.	12.0% (5.8)	12.7% (6.6)	1.8% (1.7)	5.7% (3.2)	12.8% (3.7)

**Note:** While some of the differences across states appear large, they are not statistically significant.

This measure, CENTRAL, presents a very general description of the types of hiring experienced by new teachers in the four states. The data seem to suggest that, on average, new teachers interact more with specific schools than with district central offices. Over three quarters of new teachers experience some form of decentralized hiring (76.8 percent of new teachers in the pooled group of four states, and between 75.5 percent to 91.6 percent in the individual states). However, finer-grain data from other survey items complicate this picture.

Additional data suggest that most teachers, even those who report experiencing some form of decentralized hiring, have limited interactions with school-based personnel prior to accepting their positions. This points to an important distinction between the *locus* of hiring activities and the *nature* of these activities. Just because certain schools

have control over hiring does not mean they conduct hiring in ways that take advantage of this control. Decentralized hiring can still be information-poor.

**Interviews.** Interviews are one of most interactive parts of the hiring process and a potentially rich source of information for schools, districts, and teaching candidates. The top row in Table 2a shows that the vast majority of new teachers in the four states (91 percent) participated in at least one interview for their current positions. This is not surprising. However, it is notable that, in Florida one in five new teachers report that they did not participate in any interviews as part of the hiring process. Table 2a also shows that teachers in the four states report participating in an average of 1.49 interviews for their current position. The state averages range from 1.21 (Florida) to 1.80 (Michigan), and the differences are statistically significant.

Particularly interesting is the range of individuals who interact with the prospective teachers during the interviewing process. Table 2b presents a list of school and district actors and the percentages of new teachers, in the four states as a whole and within each state, who interview with each. As the table demonstrates, the school principal dominates the interviewing process. Depending on the state, 74.9 percent to 96.2 percent of new teachers interview with the principal of the school that ends up hiring them. The percentage of new teachers who interview with any other school- or district-related individual drops considerably. Less than half of new teachers interview with current teachers at the school—i.e., their future colleagues—and only one third (33.2 percent) of new teachers interview with a school-based administrator other than the principal. The percentage of new teachers who interview with parents or students at the

school is minuscule. Only about one in ten new teachers in the four-state pool interviews with a parent, and less than one percent of them interview with a student.

Of the four states, Michigan stands out as having hiring processes that are organized so that new teachers interview with a fairly broad range of school people. New teachers in Michigan are somewhat more likely than new teachers in the other three states to interview with current teachers, students, district HR offices, department chairs and other school-based administrators.

Overall, however, hiring continues to be dominated by administrators, at both the district and school levels. While teachers, parents, and students might have valuable insights in response to candidates and might also provide candidates with useful information about what a school is like, relatively few new teachers have opportunities to interact with them, at least in the interview part of the hiring process.

**Table 2a: Interviews**

Selected weighted statistics regarding interviews for the position that new teachers ultimately obtain, reported by total population of new teachers in the pooled group, and by state (with standard errors in parentheses).

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
Percentage of new teachers who participate in at least one interview for their position*	91.4%* (3.0)	91.7% (3.4)	80.0% (5.8)	98.7% (0.9)	96.8% (2.4)
Mean number of interviews per teacher for their position*	1.49* (.11)	1.49 (.12)	1.21 (.16)	1.59 (.13)	1.80 (.16)

**Note:** For the categorical variable, a Pearson Chi-Square statistic, corrected for the survey design, was calculated to test the null hypothesis that the responses by state are identical. For the continuous variable, we tested the hypothesis that the state means were identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and thus some of the state-level differences are statistically significant.  
 ~ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001

**Table 2b: The Individuals With Whom New Teachers Interview**

Estimated percentages of new teachers (weighted) who interview with the following individuals as part of the hiring process, reported by total population of teachers in the pooled group, and by state (with standard errors in parentheses).

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
School principal	80.1%~ (4.9)	79.4% (5.6)	74.9% (5.9)	96.2% (1.6)	93.6% (3.0)
Teacher(s) at the school	45.6%~ (7.3)	46.0% (8.3)	25.4% (6.8)	52.6% (7.6)	59.9% (8.5)
District personnel/HR office	34.9%* (5.5)	36.1% (6.2)	13.9% (4.9)	13.3% (4.8)	45.1% (8.8)
Other school administrator(s)	33.2% (5.5)	33.3% (6.2)	28.3% (6.2)	28.8% (4.5)	38.6% (8.0)
Department chair at school	14.7%* (4.1)	14.1% (4.6)	9.6% (3.5)	15.5% (3.7)	31.5% (5.2)
Parent(s) at the school	9.0% (4.7)	9.5% (5.3)	0.0% (0.0)	18.4% (7.6)	7.5% (5.0)
Student(s) at the school	.1%*** (.1)	0.0% (0.0)	0.0% (0.0)	1.8% (1.4)	2.4% (1.5)

**Note:** A Pearson Chi-Square statistic, corrected for the survey design, was calculated to test the null hypothesis that the responses by state are identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and thus some of the state-level differences are statistically significant.  
 ~ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001

***Submitted Materials.*** Table 3 presents a list of application materials and the percentages of new teachers in the four states who submit each as a part of their application for their current positions. The materials are ordered from the most frequently submitted to the least frequently submitted, for the total population of new teachers in the four states.

The vast majority of new teachers in the four-state pool submit standard paper documents such as resumes, cover letters, academic transcripts, and references. In addition, a sizable percentage (40.5 percent) submits portfolios, which require more effort to prepare. New teachers in Michigan are the most likely to submit a portfolio; almost sixty percent do (59.1 percent). Still, it is notable that more than one in four new teachers in the pooled group do not submit an undergraduate transcript.

In the four-state pool, very few new teachers submit standardized test scores (27.8 percent, writing samples (24.4 percent), lesson plans (20.0 percent), or videotapes of sample lessons (0.4 percent), as part of the hiring process.

**Table 3: Application Materials (n=486)**

Estimated percentages of new teachers (weighted) who submit the following materials as part of their application, reported by total population of new teachers in the pooled group, and by state (with standard errors in parentheses).

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
Resume	99.3%~ (.5)	99.5% (.5)	96.2% (2.5)	97.8% (2.2)	99.2% (.6)
References	92.3%** (1.9)	93.4% (2.1)	82.4% (4.8)	85.2% (3.8)	84.3% (5.3)
Undergraduate transcript	72.3% (4.8)	72.3% (5.5)	73.1% (6.7)	76.0% (6.5)	71.2% (7.8)
Cover Letter	67.7%~ (5.4)	67.8% (6.2)	54.3% (7.1)	88.7% (4.0)	75.5% (5.8)
Graduate transcript	41.2%* (5.4)	43.4% (6.0)	26.9% (9.0)	38.0% (6.3)	17.6% (4.5)
Portfolio	40.5%~ (6.4)	38.9% (7.2)	51.1% (5.9)	41.8% (6.6)	59.1% (6.4)
Standardized test scores	27.8% (4.3)	26.5% (4.9)	41.0% (8.1)	33.2% (6.5)	34.6% (6.7)
Writing sample or essay	24.4% (5.3)	24.9% (6.0)	19.8% (6.4)	22.7% (9.5)	20.8% (9.4)
Lesson Plan	20.0% (4.3)	19.3% (4.9)	22.0% (4.5)	27.3% (6.3)	29.5% (6.9)
Videotape of sample lesson	.4%*** .2	0.0% (0.0)	4.2% (2.5)	5.1% 3.1)	1.0% (1.0)

**Note:** A Pearson Chi-Square statistic, corrected for the survey design, was calculated to test the null hypothesis that the responses by state are identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and thus some of the state-level differences are statistically significant.

~ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001

**Observations.** While application materials mainly transmit information from the candidate to the school, observations can provide opportunities for both parties to collect information about one another. Data presented in Table 4, however, suggest that schools make very little use of observations—either in terms observing candidates teach sample lessons or having new teachers observe the school in action.

Only 7.5 percent of the new teachers in the four-state pool are observed teaching a sample lesson as part of the hiring process. The individual state percentages range from 6.9 percent in CA to 19.6 percent in MA, and the differences across state are significant at the .10 level. It is remarkable that so few new teachers are asked to provide an authentic demonstration of their teaching ability prior to being hired.<sup>9</sup> Despite having considerable control over the hiring process, most schools seem to rely primarily on interviews and written application materials.

**Table 4: Sample Lessons & Classroom Observations**

Selected weighted statistics regarding observations of and by teaching candidates, reported by total population of new teachers in the pooled group, and by state (with standard errors in parentheses).

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
Percentage of new teachers who are observed teaching a sample lesson as part of the hiring process	7.5%~ (2.3)	6.5% (2.6)	14.0% (5.0)	19.6% (6.1)	14.6% (6.4)
Percentage of new teachers who visit or observe classes while school is in session	35.1%** (5.6)	37.1% (6.3)	28.4% (6.1)	23.0% (7.0)	8.7% (3.2)

**Note:** A Pearson Chi-Square statistic, corrected for the survey design, was calculated to test the null hypothesis that the responses by state are identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and thus some of the state-level differences are statistically significant.

~ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001

<sup>9</sup> The picture is not quite so bleak since, as we see below, some new teachers are hired by the schools in which they did their student teaching. Schools that hired these teachers may have many opportunities to assess their teaching abilities.

Schools also appear to provide few opportunities for candidates to observe the school in action. Depending on the state, only 8.7 percent to 37.1 percent of new teachers visit or observe classes while school is in session, as part of the hiring process. Even fewer observe or sit in on a faculty or team meeting (5.2 percent to 13.8 percent). New teachers in California are most likely to observe the school in action while new teachers in Michigan are least likely to do so.

That schools do not make greater use of observations becomes easier to understand, when one considers the timing of hiring decisions.

### **Timing of Hiring Decisions: Late and Even Later**

Many new teachers are hired quite late. Table 5 presents statistics summarizing the timing of hiring decisions, as reported by new teachers. In Florida, only 18.6 percent of new teachers are hired more than a month before the start of school. Assuming that most schools begin the academic year in early September, this suggests that fewer than one in five new teachers in Florida are hired before August. For the other three states, the corresponding percentages are 35.8 in California, 51.1 in Massachusetts, and 58.0 in Michigan. The remaining new teachers—81.4 percent in Florida, 64.2 percent in California, 48.9 percent in Massachusetts, and 42.0 percent in Michigan—are hired either during the month before school starts or after school has already started.

The proportion of teachers hired after school has already started is particularly striking. In California and Florida, approximately one in three new teachers is hired after the start of the school year. In Massachusetts, the proportion is closer to one in eight, and

in Michigan, the proportion is approximately one in ten. These state differences are statistically significant ( $p < .01$ ).<sup>10</sup>

Another measure, the average number of days between when new teachers are hired and when their teaching responsibilities begin, paints a similar picture. New teachers in Michigan are hired the earliest (on average, 56.2 days before they start their jobs), while new teachers in Florida are hired the latest (on average, 22.5 days before they start their jobs).

**Table 5: Timing of Hires**

Selected weighted statistics regarding when new teachers are hired, reported by total population of new teachers in the pooled group, and by state (with standard errors in parentheses).

	<b>4-States</b> n=482	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
Percentage of new teachers hired <i>more than a month</i> before school started	36.1%** (4.8)	35.8% (5.4)	18.6% (5.8)	51.1% (7.8)	58.0% (7.1)
Percentage of new teachers hired <i>the month</i> before school started	30.8%** (4.4)	29.7% (5.2)	46.1% (8.0)	35.3% (7.8)	32.5% (6.1)
Percentage of new teachers hired <i>after the school year</i> started	33.0%** (6.0)	34.5% (6.7)	35.4% (7.1)	13.5% (4.4)	9.5% (4.0)
Average days between hiring date and start of job	41.3*** (8.1)	41.5 (9.2)	22.5 (2.9)	49.8 (8.4)	51.9 (6.2)

**Note:** For categorical variables, a Pearson Chi-Square statistic, corrected for the survey design, was calculated to test the null hypothesis that the responses by state are identical. For the continuous variable, we tested the hypothesis that the state means were identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and thus some of the state-level differences are statistically significant.

~  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

<sup>10</sup> Some care must be taken in interpreting these results, however. Because we surveyed new teachers in the spring, it is possible that some of these differences are the result of different rates of teacher attrition rather than differences in how hiring is organized. Some of the new teachers surveyed might have been hired late, because they were replacements for teachers who were hired earlier but who left in the middle of the school year.

## **Reported Accuracy of the School Preview**

On average, new teachers in the four states report that they form only moderately accurate pictures of their schools from the hiring process. The composite variable PREVIEW measures the extent to which new teachers feel they formed an accurate picture of their individual schools from the hiring process. The composite is formed from the average of nine items, each measured on a seven-point Likert scale, with “1” indicating strong disagreement and “7” indicating strong agreement.

Table 6 presents the mean PREVIEW scores in each state, and in the four-state pool. The state means are between of 4.03 (CA) to 4.81 (MI), which correspond to responses between “Neutral” and “Somewhat Agree” with the general proposition that they formed an accurate picture of what their school was like from the hiring process. In California, Florida, and Massachusetts, less than half of new teachers could say that they at least “somewhat agree” that the hiring process gave them an accurate picture of their school/job. In Michigan, just over half (51.5 percent) could say this.

**Table 6: Preview of the School Obtained from the Hiring Process**

Selected weighted statistics regarding the picture that new teachers get from the hiring process, reported by total population of new teachers in the pooled group, and by state (with standard errors in parentheses). The composite variable PREVIEW measures the extent to which new teachers feel they formed an accurate picture of their individual schools from the hiring process (Cronbach's alpha reliability = .89), and is measured on a seven-point Likert scale, with "1" indicating strong disagreement and "7" indicating strong agreement.

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
Mean PREVIEW score	4.10** (.16)	4.03 (.18)	4.47 (.19)	4.56 (.09)	4.81 (.15)
Percentage of new teachers with a PREVIEW score of 5 (somewhat agree) or above	29.0%* (4.5)	27.0% (5.0)	40.0% (8.1)	34.7% (6.6)	51.5% (7.6)
Percentage of new teachers with a PREVIEW score of 6 (agree) or 7 (strongly agree)	7.7% (3.1)	6.9% (3.5)	13.2% (4.1)	7.8% (2.4)	15.3 (3.1)

**Note:** For categorical variables, a Pearson Chi-Square statistic, corrected for the survey design, was calculated to test the null hypothesis that the responses by state are identical. For continuous variables, we tested the hypothesis that the state means were identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and thus some of the state-level differences are statistically significant.  
 ~ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001

**Table 7: Measures of Fit with Position and School (n=486).**

Mean fit with position and school as reported by new teachers in the total population of the pooled group, and by state (standard errors in parentheses). The scale for these measures ranges from 1=very poor match to 5=very good match.

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
Mean Fit with Position (FITJOB)	4.04 (.08)	4.04 (.09)	3.98 (.10)	3.96 (.10)	4.12 (.08)
Mean Fit with School (FITSCH)	3.50** (.11)	3.48 (.12)	3.52 (.16)	3.53 (.09)	3.88 (.08)

**Note:** We tested the hypothesis that the state means were identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and thus some of the state-level differences are statistically significant.  
 ~ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001

## **Reported Fit Between New Teachers' and Their Teaching Positions**

Table 7 presents statistics describing the reported fit between new teachers and their jobs (FITJOB) and between new teachers and their schools (FITSCH). The two measures are composite variables, and their values range from 1 to 5, where 1=very poor match and 5=very good match.

Overall, new teachers in the pooled group of four states report a “good” fit with their position (mean FITJOB = 4.04) and just a “moderate” to “good” fit with their school (mean FITSCH = 3.50). The .54 difference between new teachers' mean fit with position and their mean fit with school is statistically significant ( $t=5.90$ ;  $p<.001$ ).

While the differences among states in mean fit with job are not statistically significant, the differences in mean fit with school are significant. New teachers in Michigan report a significantly higher level of fit with their schools than new teachers in the other three states. This is consistent with the state's higher PREVIEW scores. Thus, hiring practices in Michigan appear to provide new teachers with more accurate pictures of their future schools, which may be contributing to better matches between individuals and their schools. Another possible factor contributing to these higher levels of fit with schools may be Michigan schools' greater tendency to fill positions by hiring from among their student teachers.

## **Hiring Student Teachers and Aides**

Overall, one in ten new teachers did their student teaching at their current school prior to being hired for their position. This figure, however, hides some of the variation across the states. In Michigan, about one in four (27.2 percent) new teachers was a

student teacher at the school that ended up hiring him or her. See Table 8. In the four-state pool, approximately one in five (19.4 percent) new teachers either student taught *or* worked as a paid aide/paraprofessional at their school prior to their current position.

It is likely that new teachers who serve as student teachers or aides experience the hiring process differently than new teachers who are complete outsiders to a school. Indeed, for this group, the hiring process may well be a less important source of information about the school than their daily work as student teachers or aides. The schools also have greater opportunities to evaluate these candidates' teaching abilities or potential.

**Table 8: Percentage of New Teachers Hired After Serving as Student Teachers or Aides**

Selected weighted statistics regarding prior work relationships that new teachers had with their schools, reported by total population of new teachers in the pooled group, and by state (with standard errors in parentheses).

	<b>4-States</b> n=486	<b>CA</b> n=112	<b>FL</b> n=113	<b>MA</b> n=144	<b>MI</b> n=117
Percentage of new teachers who <i>student taught</i> at their school prior to their current position	10.3%~ (4.0)	9.2% (4.5)	13.9% (4.7)	6.5% (3.4)	27.2 (5.6)
Percentage of new teachers who <i>student taught or worked as aides/paraprofessionals</i> at their school prior to their current position	19.4% (5.2)	19.2% (5.9)	14.1% (4.7)	19.2% (4.6)	29.2% (5.4)

**Note:** A Pearson Chi-Square statistic, corrected for the survey design, was calculated to test the null hypothesis that the responses by state are identical. An asterisk on the 4-state statistic indicates that the responses are not independent of state, and that some of the state-level differences are statistically significant.  
 ~ p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001

## **DISCUSSION & CONCLUSION**

Our analysis reveals that three-quarters of new teachers in California, Florida, Massachusetts, and Michigan are hired through a decentralized process. Nevertheless, most new teachers report having limited interactions with school-based personnel as part of the hiring process. While the vast majority of new teachers interview with the school principal, relatively few interview with current teachers, department chairs, students, or parents at the school. Data also suggest that the hiring process relies heavily on reviews of paper credentials and interviews, and that schools and districts seldom observe candidates' teaching.

Perhaps it should not be surprising that schools and districts make so little use of certain hiring practices, for some activities are much more labor-intensive than others. Collecting and reviewing résumés is a relatively simple matter. Conducting group interviews or setting up teaching demonstrations, however, take considerable time and coordination. Quality information does not come without a cost.

From an organizational standpoint, arranging a teaching demonstration by a candidate is perhaps the most difficult practice, for it requires time, a scarce resource in most schools. Principals have to find time to conduct the observation. Teachers at the school, if they are to be involved, need to be released from their classes and substitutes found to cover for them. Coordinating individuals' schedules, finding a place to hold the demonstration, imposing on a teacher's class to have the candidate teach a lesson with his or her students (or traveling to a candidate's current school to observe him or her there) all require considerable time and effort. It is thus not surprising that so few new teachers are observed teaching a sample lesson as part of the hiring process.

Our analysis suggests that the timing of the hiring process may be the most serious impediment to more interactive and information-rich hiring processes. Many new teachers are not hired until the summer, when school is not in session, few teachers are available to conduct interviews of prospective colleagues, and it is impossible for candidates to observe the school in action. Other new teachers (approximately a third in California and Florida) are hired after the school year has already started, when principals are in a rush to fill a position and may not feel that they have time for a measured and interactive hiring process.

There are several reasons why many new teachers are hired late. First, some districts have a difficult time predicting student enrollments, which determine appropriate staffing levels for each school. Second, many districts are dependent on budget decisions made by the state or municipality, which are often delayed due to political wrangling. The level of state funding also fluctuates from year to year, creating additional uncertainty regarding staffing levels. Third, some districts and schools are constrained by collective bargaining agreements requiring that the transfer process for tenured teachers be completed before new teachers can be hired. Finally, district personnel offices and the systems they have in place are often poorly organized, inefficient, or dysfunctional.

Taken together, our findings suggest that many schools are not taking full advantage of decentralized hiring and its potential for improving the amount and quality of information exchanged between teaching candidates and those who do the hiring. In other words, the hiring process that many new teachers experience, while school-based, is still not information-rich. As a result, new teachers in the four states form only moderately accurate pictures of their schools, prior to accepting their initial teaching

positions. Many new teachers thus may be surprised by what they find in their schools. Their expectations about what they would be doing and what their work environment would be like may not be met. To the extent that this contributes to new teachers' dissatisfaction, ineffectiveness, and turnover, it is cause for serious concern.

### **Challenges and Opportunities**

Given how busy teachers and principals are, the prospect of carrying out a thorough, information-rich hiring process can be daunting. However, hiring practices such as teaching demonstrations and group interviews have considerable benefits. Teaching demonstrations are among the most authentic indicators of a candidate's teaching ability and potential. Furthermore, requiring candidates to teach sample lessons can send a strong signal to them about a school's values and priorities regarding teaching.

Involving a wide cross-section of the community in interviewing candidates also has several advantages. First, it taps the expertise and insights of teachers (and perhaps even parents and students) to evaluate candidates. Second, it allows candidates to get to know potential colleagues and gives them access to multiple perspectives on the school. Third, it may develop in veteran teachers who are involved an interest in assisting the new teachers after they are hired.

Overall, the potential payoff of interactive and information-rich hiring practices is high. If schools do hiring right, they may reduce teacher turnover and not have to be constantly hiring. Recognizing the significant time and energy these practices require, schools can be selective in which activities they use and when. For instance, they may use less labor-intensive activities (reviews of paper credentials or phone interviews) to

sift through the applications and only use the more labor-intensive and information-rich activities for evaluating finalists.

In order to make effective use of information-rich hiring, schools and districts will need to begin hiring earlier. To do this, they will need to increase the efficiency and effectiveness of their personnel systems. However, they will also need assistance from policy makers and teachers unions. State policy makers can help districts by providing more timely and predictable budgets. This would help districts determine staffing levels earlier than they currently do. Unions can help by being willing to revisit contract provisions regarding staffing and seniority-based transfer systems.

Teachers unions are often blamed for the shortcomings of district hiring processes, and it is certainly true that collective bargaining agreements regulate staffing practices and limit the flexibility of management. It is important to note, however, that union contracts vary a great deal, and that, in many cases, the provisions pertaining to staffing decisions are much less comprehensive and restrictive than critics assume. Often delays have as much to do with the slow bureaucratic processes of the district as with union-imposed restrictions. Still, where the teacher transfer process poses a barrier to early hiring, school officials and unions can negotiate to start the process earlier or reduce seniority as a criterion in staffing decisions. In recent years, two urban districts, Seattle and Boston, have done so.

The results of our research suggest that shifting hiring decisions to the school level is not enough. State and district policy makers must help schools take advantage of decentralized hiring by removing the impediments to early hiring, providing training and guidance to principals and school hiring committees, and providing the resources needed

to carry out more interactive, information-rich hiring. These changes are not easy to make, but they are essential if schools are to attract and retain the new teachers that students deserve.

## Appendix A: Summary of State Level Characteristics of California, Florida, Massachusetts, and Michigan.

Source: *Education Week's "Quality Counts 2003: The Teacher Gap"* (Editors, 2003).

	CA	FL	MA	MI
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 Minority Students	62.6%	46.5%	24.2%	25.3%
Percent Children in Poverty	22.8%	21.9%	14.3%	16.8%
Percent Students with Disabilities	10.7%	15.0%	16.3%	13.4%
Percent English-language Learners	24.9%	9.9%	4.6%	2.6%
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%
Percent of 8 <sup>th</sup> 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
Average teacher <i>starting</i> 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 Charter Schools	452	232	47	186
Number of Participants in State Alternative Route Programs	7,098	180	200	N/A
Percent of Graduates from NCATE-accredited Teacher Education Programs (2001)	58%	79%	76%	69%

**Appendix B: Description of Full Sample (unweighted statistics) and of Sample by State.**

	4-States (n=486)		CA (n=112)		FL (n=113)		MA (n=144)		MI (n=117)	
	n	%	n	%	n	%	n	%	n	%
<b>Teaching Experience</b>										
First Year	252	51.9%	59	52.7%	58	51.3%	83	57.6%	52	44.4%
Second Year	234	48.2%	53	47.3%	55	48.7%	61	42.4%	65	55.6%
<b>Gender</b>										
Female	372	76.5%	84	75.0%	88	77.9%	110	76.4%	90	76.9%
Male	114	23.5%	28	25.0%	25	22.1%	34	23.6%	27	23.1%
<b>Race</b>										
American Indian / Alaskan	3	0.6%	1	0.9%	1	0.9%	0	0.0%	1	0.9%
Asian or Pacific Islander	14	2.9%	9	8.1%	1	0.9%	2	1.4%	2	1.7%
Black / African American	30	6.2%	2	1.8%	18	15.9%	3	2.1%	7	6.0%
Hispanic / Latino	38	7.9%	22	19.8%	14	12.4%	2	1.4%	0	0%
White	385	79.9%	73	65.8%	74	65.5%	132	93.0%	106	91.4%
Biracial/Multiracial	4	0.8%	3	2.7%	1	0.9%	0	0%	0	0%
Other	8	1.7%	1	0.9%	4	3.5%	3	2.1%	0	0%
<b>Career Stage</b>										
First-Career Entrant	284	58.4%	55	49.1%	63	55.8%	75	52.1%	91	77.8%
Mid-Career Entrant	202	41.6%	57	50.9%	50	44.2%	69	47.9%	26	22.2%
<b>Age</b>										
21-29	310	63.8%	61	54.5%	67	59.3%	91	63.2%	91	77.8%
30-39	95	19.6%	28	25.0%	26	23.0%	26	18.1%	15	12.8%
40-49	58	11.9%	17	15.2%	14	12.4%	19	13.2%	8	6.8%
50-57	23	4.7%	6	5.4%	6	5.3%	8	5.6%	3	2.6%
<b>Grade Level</b>										
Elementary	263	54.1%	53	47.3%	71	62.8%	73	50.7%	66	56.4%
Middle School	94	19.3%	11	9.8%	25	22.1%	33	22.9%	25	21.4%
High School	129	26.5%	48	42.9%	17	15.0%	38	26.4%	26	22.2%
<b>School Type</b>										
Conventional	370	76.1%	94	83.9%	83	73.5%	111	77.1%	82	70.1%
Charter	116	23.9%	18	16.1%	30	26.6%	33	22.9%	35	29.9%

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