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Abstract

This daily diary study followed, over a 2-week period, 252 beginning New York City public school teachers. Seventy percent were alternatively certified (New York City Teaching Fellows) and the rest, traditionally certified teachers. Alternatively certified teachers were more likely to experience stressors such as violent incidents and classroom management problems. No differences were found in exposure to stressors/difficulties such as problematic adults, student learning problems, and students experiencing emotional upset. Although differences in the rates of exposure to violent stressors could be explained by other factors (e.g., working in a low-performing school and years of experience), differences in the rates of occurrence of classroom management problems could not. Nevertheless, the high absolute rates of management problems and violence in both groups of teachers were striking and need to be addressed. The authors suggest measures to be taken to address the problem of retaining talented new teachers.

Keywords

teachers, alternative certification, New York City Teaching Fellows, classroom management, teacher stress, school violence, job stressors, occupational stress

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Historically, there has been a shortage of trained, certified teachers in large urban districts. Approximately, 50% of educators working in urban areas leave the profession by their 5th year of teaching (Knox, 2005). Many teachers working in large urban districts transfer to more affluent districts well before they retire; high turnover in urban schools adversely affects student performance (Shakrani, 2008). Fore, Martin, and Bender (2002) found that (a) special education teachers, compared to general education teachers, had a higher rate of attrition and (b) many special education teachers leave the special education classroom to teach in general education classrooms, while the opposite does not typically occur. Strunk and Robinson (2006) found that certain factors increased the likelihood of teachers leaving the profession. These factors include teaching a specialized subject (e.g., foreign language), holding a probationary license, having less experience, teaching students who are less matched to the teacher's own racial or ethnic identity, and teaching in classrooms that are heavily made up of minority students. Boyd, Lankford, Loeb, and Wyckoff (2005) found that factors associated with quitting or transferring among highly qualified New York City teachers include teaching low-achieving students and living long distances from their schools.

Darling-Hammond (2003) identified several factors related to high rates of attrition in large, urban school districts, including lower salary scales, "fewer resources, poorer working conditions, and the stress of working with many students and families who have a wide range of needs" (p. 8). In a qualitative study of 25 new Arizona high school science teachers, Patterson, Roehrig, and Luft (2003) found that over 4 years, almost half of the teachers either transferred to another teaching placement or left teaching altogether. The teachers who transferred or left teaching identified the lack of administrative support, excessive workload, lack of opportunity to interact with colleagues, and challenges motivating and disciplining students as factors contributing to their decisions.

With the need to recruit and retain quality teachers in urban areas, numerous states have adopted alternative means of preparing teacher candidates. Alternative routes to certification are state-sanctioned programs that offer temporary certification to candidates while the candidates participate in teacher preparation courses. Essentially, the candidates enter the teaching profession *while* enrolled in their first teacher-preparation courses. Traditionally, teacher candidates complete considerable coursework *prior* to entering the profession. The level of training before entry into the teaching profession is a key difference between alternatively and traditionally certified teachers.

Alternatively certified teachers need to be able to provide rich learning experiences and manage social, emotional, and behavioral problems in students.

Current thinking suggests that it is not enough to educate teacher candidates on how to best deliver instruction in the classroom or have them practice the delivery of an academic curriculum to fit the needs of diverse learners (MacIver & Vaughn, 2007). It is also important to pay attention to the unique difficulties that alternatively certified teachers face, especially during their first years of teaching. Identifying these difficulties should provide feedback to professors in alternative-certification programs and school administrators regarding how to design better training for teacher candidates. Knowledge of the principal stressors and difficulties that alternatively certified teachers experience is also necessary for building better support systems for these teachers.

In the following sections, we provide a short history of alternative certification, contrast alternative certification to traditional certification, briefly review literature on the stressors and difficulties affecting teachers in general, and propose a hypothesis bearing on stressors/difficulties differentially affecting alternatively and traditionally certified teachers.

Alternative Certification

Historical framework. Alternative certification programs began in the early 1980s in New Jersey, followed by Texas, with approximately 250 certification candidates (Stafford & Shaughnessy, 2006). According to the National Center for Education Information, in 2005, 48 states and the District of Columbia certified a sizable fraction of new teachers through alternative routes (Feistritzer, 2006). Although the estimates differ by their sources, the National Center for Alternative Certification (2007) estimates that about 59,000 candidates were offered teaching certificates in the 2005-2006 school year and the National Center for Education Information (Feistritzer, 2006) puts the estimate at 50,000. In total, it has been reported that approximately 200,000 teachers have been certified through alternative programs since 1985 (Feistritzer & Chester, 2003). About 40% of new hires in New Jersey and about one third of new hires in Texas and California entered the profession via the alternative-certification route (Feistritzer, 2006). As of 2006, there were 485 alternative teacher preparation programs in the United States (Honawar, 2007). The number of programs that prepare teachers via alternative routes has the potential to increase dramatically if new plans developed by the states meet criteria consistent with the requirements of the *No Child Left Behind Act* (Honawar, 2007). Since it is only recently that there are great numbers of alternatively certified teachers, their stresses and difficulties have not been extensively studied.

Traditionally vs. alternatively certified teachers. Research comparing traditionally and alternatively certified teachers in terms of preparation, effectiveness, and retention has been inconclusive. According to Tissington and Grow (2007), research on the quality of traditional and alternative-certification teacher-preparation programs has been mixed. In one of the earliest studies, Boser, Wiley, and Pettibone (1986) compared representative samples of alternatively certified and traditionally trained Tennessee teachers. Boser et al. found that because of their older age, alternatively certified teachers possessed more general knowledge and that their professional preparation compared favorably, in the view of administrators, to the preparation of their traditionally trained colleagues. Stoddart and Flodden (1995), however, found no clear evidence to indicate that alternatively certified teachers show greater pedagogical skill than traditionally trained teachers. Miller, McKenna, and McKenna (1998) also found no significant differences in the quality of the elementary school pedagogy in traditionally trained and alternatively certified elementary school teachers. By contrast, Decker, Mayer, and Glazerman (2004) found that an important, and elite, subgroup of alternatively certified teachers, Teach For America candidates, compared to traditionally trained peers, displayed higher levels of pedagogical competence, especially in mathematics. Flores, Desjean-Perrotta, and Steinmetz (2004), on the other hand, found that compared to alternatively certified teachers, traditionally certified teachers showed greater confidence in their teaching ability.

Research on comparative retention rates has also been inconclusive. Suell and Piotrowski's (2007) review of research comparing retention among traditionally trained and alternatively certified teachers shows conflicting results. Harris, Camp, and Adkison (2003), in a large study of more than 10,000 Texas teachers, found after 5 years higher retention rates in alternatively certified teachers. In a small study comparing alternatively and traditionally certified Georgia teachers, Gerson (2002) found no differences in attrition over their first 2 years on the job.

Teachers and Stress

High levels of occupational stress undermine new teachers' motivation to remain in the profession (Miller, Brownell, & Smith, 1999; Schonfeld, 2001; Steggerda, 2003; Younghusband, 2008). Borg, Riding, and Falzon (1991), in a study of 710 Maltese teachers, found that about one third reported that their job was very or extremely stressful. The top four sources of stress were student misbehavior, time and resource obstacles, lack of professional recognition, and inadequate professional relationships. The Borg et al. study and numerous

other studies (Brenner, Sörbom, & Wallius, 1985; Schmitz, 2000; Taris, Peeters, Le Blanc, Schreurs, & Schaufeli, 2001; Travers & Cooper, 1994) underline the demoralizing impact of the working conditions of many teachers. Brownell, Smith, McNellis, and Miller (1997), in a 2-year study of approximately 1,500 special education teachers, found that the educators who transferred to general education or left the teaching profession altogether self-identified as having higher levels of stress as compared to colleagues who remained in the classroom. The job-leavers identified poor working environments, lack of administrative support, poor teacher preparation, and low salaries as factors influencing both stress and attrition. Ilmer, Nahan, Elliott, Colombo, and Snyder (2005) interviewed 178 1st-year, alternatively certified teachers and found that many “expressed genuine disappointment and frustration with the lack of support they received from principals” and “a lack of support (from the schools) for working with parents” (p. 12). Schonfeld (2001), in a study of 184 1st-year female teachers, found that high rates of episodic stressors (e.g., student challenges, fighting, etc.) during the fall term were related to psychological distress, reduced job satisfaction, and lowered motivation to continue in the profession during the spring term, controlling for a host of confounding variables measured just prior to the teachers obtaining their first teaching jobs; the confounding variables included preemployment assessments of distress, anticipated job satisfaction, and motivation to continue in the profession.

A modified version of an “event proneness” model (Dohrenwend & Dohrenwend, 1981) is relevant to comparisons between alternatively and traditionally certified teachers. In teaching, an event proneness model could help explain some of the differences in the work experiences of the two groups (see Schonfeld, 1990; Schonfeld & Ruan, 1991). Although an event proneness model has been used in the context of research on the association between preexisting distress and later classroom difficulties (e.g., high levels student disruption; Schonfeld & Ruan, 1991), the theoretical model applies equally to the relation of the extensiveness of a teacher’s training to the frequency of classroom management problems. Because alternatively certified teachers, in comparison to their traditionally certified colleagues, begin their careers with many fewer university-level teacher-training courses, it may be expected that the less extensively trained alternatively certified teachers will encounter more classroom difficulties.

The two groups of teachers may differ in a number of other ways that could help explain the rates at which they encounter problems. Negative affectivity (Brief, Burke, George, Robinson, & Webster, 1988; Schonfeld, 1996; Watson & Clark, 1984), a dimension of personality thought to be related to the experience

of stress, is another factor on which the two groups of teachers may differ. Teachers in classes with older students are at greater risk of management problems because of older students' larger size (Smith & Smith, 2006). Young-husband (2008) gave numerous examples of physically mature students disrupting classes or threatening teachers. Alternatively certified teachers are more likely to work in high-need schools (Boyd, Grossman, Lankford, Loeb, Michelli, & Wyckoff, 2008) with large numbers of students who are at risk for behavior problems. In analyses described later, we assess for group-related differences in personality, grade, years taught, and type of school (whether state school officials deemed the school low-performing). Using variables in which the two groups of teachers differ, we attempt to account for divergences in rates of management and other problems (e.g., violence) in the alternatively and traditionally certified teachers.

The purpose of the present study is to estimate the frequencies with which alternatively certified teachers and their traditionally certified colleagues encounter job-related difficulties. Although we examine a variety of difficulties new teachers encounter, the event proneness model would specifically anticipate that new teachers who did not obtain undergraduate training in pedagogy prior to entering the classroom, that is, alternatively certified teachers, would encounter more classroom management problems in comparison to traditionally certified teachers, who have considerably more pedagogical training *before* entering the classroom.

Method

Preliminary Qualitative, Item-Development Study

Because qualitative research has often provided a foundation for the development of research instruments (Schonfeld & Farrell, 2010; Schonfeld & Mazzola, IN PRESS), a preliminary qualitative study was conducted for the purpose of identifying the content of the items to be employed in the Teacher Daily Diary used in the principal study. To this purpose, the first author created a critical incident (CI; Flanagan, 1954) interview based on one developed by O'Driscoll and Cooper (1995) to identify work-related CIs and the ways workers cope with those incidents. The CI interview was tailored to teachers. CIs are "stressful transactions" in terms of antecedents, context, responses provoked, and consequences (O'Driscoll & Cooper, 1995). The interview elicits descriptions of stressful incidents the teachers encountered and the ways in which they attempted to manage each stressful situation regardless of the degree of success in resolving the incident. A total of 74 New York City area teachers (42 women) whose experience ranged from just a few

months to a veteran with more than 20 years in the profession (mean = 5 years) were recruited (6.8% taught in kindergarten or pre-K; 33.8% in elementary school; 33.8% in junior high school or middle school; 25.7% in high school). The interviews were transcribed.

Next a provisional set of categories was created. The purpose of the categories was to characterize both the CIs the teachers experienced and the ways the teachers managed the CIs. Two readers independently read and classified the CIs in the first 20 transcripts. The readers studied their points of agreement and disagreement, then slightly adjusted the categorical scheme. Next, the readers independently read the remaining 54 transcripts and categorized teachers' responses, using the revised set of categories. Reasonably good levels of reliability were obtained for both the CIs (median kappa = .82, range: .61-1.00) and coping responses (median kappa = .74, range: .60-.81). Thus the fruit of the preliminary, CI interview study was an inventory of reliably identifiable episodically occurring difficulties and stressors teachers commonly experience. The categories of stressors that emerged provided a foundation for the Teacher Daily Diary described below.

Principal Study

Sample. The principal investigator recruited, on a rolling basis, a total of 257 beginning New York City public school teachers between 2003 and 2006. Almost 70% were New York City (NYC) Teaching Fellows, a group of "talented individuals who have excelled in their previous endeavors and are dedicated to raising student achievement in high-need communities" (NYC Teaching Fellows, 2007). The Teaching Fellows program, NYC's alternative certification program, was developed by the NYC Board of Education (now Department of Education) in 2000 to help overcome teacher shortages by recruiting well-educated and talented individuals. Entrance requirements into the New York City Teaching Fellows program include a minimum baccalaureate grade point average of 3.0 ("B"), a sample lesson, discussion of current educational issues, responses to classroom issues, and a one-on-one interview (Humphrey & Wechsler, 2007). The other 30% of the teachers recruited for the study were traditionally certified. Although the proportions of alternatively and traditionally certified teachers were sharply different, they reflected the composition of the particular graduate programs at the time data were collected. The group of 76 traditionally certified teachers, although smaller than the sample of alternatively certified teachers, was large considering that the median sample size for diary research has been under 50 (Schonfeld, 2008).

All the teachers were enrolled in master's level, graduate teacher-education classes. Traditionally certified teachers and NYC Teaching Fellows must earn a master's degree within 5 years of entry into the teaching profession, as per the requirements of the New York State Education Department. A key difference between the alternatively certified Teaching Fellows and traditionally certified teachers is that traditionally certified teachers typically have New York State *initial certification* based on undergraduate teacher-education coursework completed before entering the classroom. The alternatively certified teachers typically do *not* have undergraduate teacher-education coursework and must complete initial certification coursework, at the master's degree level, while teaching with a New York State *transitional certificate* (Office of Teacher Initiatives, New York State Education Department, 2010), a certificate not needed by traditionally certified teachers.

The master's level classes in which the teachers were enrolled were conducted at a college with a long history of training NYC public school teachers and, more recently, a contract to train Teaching Fellows. The first author obtained the permission of each course instructor to visit his or her class (the classes were devoted to elementary, middle school, and high school pedagogy and content) and asked the teachers in attendance to volunteer for the Diary study. The volunteering teachers were given a letter of informed consent that was approved by the institution's human subjects committee. Teachers were told in writing and orally that participation was voluntary and that they could drop out of the study whenever they wished. They were also told that their privacy would be protected and that the study would last 2 weeks, a relatively long period of time in diary research (Schonfeld, 2008).

Of the 257 teachers who volunteered, 5 participated on one occasion and then dropped out. One of the 5 left the study because of illness. One had a computer malfunction that prevented her from completing the Teacher Daily Diary. Three others simply stopped completing the Diary. The analyses of the teachers in the sample were limited to the 252 who participated on at least two occasions.

Table 1 summarizes the social demographic characteristics of the teacher participants. The sample was predominantly female and about 60% White. The average teacher was in his or her early 30s. More than half the teachers were single. About one fifth of the teachers were parents.

Table 2 summarizes the job characteristics of the teachers. The table indicates that a little more than one quarter of the teachers taught in Schools Under Registration Review (SURR), schools identified by the New York State Education Department as low-performing, having failed to attain specified performance targets (University of the State of New York, State Education

Table 1. Social Demographic Characteristics of the Sample

Social demographic characteristic	<i>n</i> (%) unless otherwise specified
Gender	
Women	165 (65.9%)
Men	87 (34.5%)
Age	$M = 31.5$ ($s = 9.2$)
Race/Ethnicity	
White	149 (59.1%)
Black	39 (15.5%)
Hispanic	41 (16.3%)
Asian	15 (6.0%)
Mixed	2 (0.8%)
Other	6 (2.4%)
Marital status	
Married or domestic partners	94 (37.3%)
Never married	141 (56.0%)
Divorced, separated, or widowed	17 (6.7%)
Children at home	54 (21.4%)

Table 2. Job Characteristics of the Sample

Job characteristic	<i>n</i> (%) unless otherwise specified
Job Status	
Alternatively certified teachers (NYC Teaching Fellows)	176 (69.8%)
Traditionally certified teachers	76 (30.2%)
Taught in Schools Under Registration Review (SURR)	68 (27.0%)
Years taught	$M = 2.6$ ($s = 3.3$)
Grade level taught	
Prekindergarten	4 (1.6%)
Kindergarten	6 (2.4%)
Elementary school	69 (27.4%)
Junior high school	75 (29.8%)
High school	98 (38.9%)
Special education status of students	
Students principally in special education	38 (15.1%)
Small of students in special education	132 (52.4%)
No special education students	82 (32.5%)

Department, 2007). SURR schools also struggle with many problems including violence (Herszenhorn, 2007). The teachers taught an average of 2.6 years. About 15% of the teachers taught classes that principally comprised students with special education needs. A little more than half taught classes in which a small fraction of students was receiving special education services. More than 30% taught classes in which there were no students receiving special education services.

Because they were busy professionals who were working full-time and taking graduate courses in the evenings, few teachers could contribute data on 14 consecutive days. The mean number of days the teachers responded was 10.42 ($s = 3.26$). Because some teachers did not keep track of the days they participated or because of a desire to make up for a missed day, a small number ($n = 34$) contributed data after the 2-week period elapsed, mainly for a single day. The greatest number of separate days for which teachers completed the Diary was 15 ($n = 4$). No data were censored if the teacher participated for more than 14 days. Although the teachers were asked to complete the Teacher Daily Diary after the school day was over, on some occasions teachers completed the Diary on a break during the school day or early the next morning before the next school day began. A thorough review of every Diary—every Diary was time stamped—linked the Diary to the day to which it applied.

The data relevant to this article concerned work days. Alternatively certified Teaching Fellows participated a mean of 7.63 ($SD = 2.26$) work days and the traditionally certified teachers, 7.20 ($SD = 2.44$) work days. The difference was not statistically significant.

Questionnaire. Although data collection mainly took place online, the teachers completed one paper-and-pencil questionnaire prior to the introduction of the online Diary. The questionnaire comprised two parts. One part was used to collect social demographic (e.g., age, gender, etc.) and job information (e.g., grade taught). The second part consisted of the trait version of the Positive and Negative Affect Scales (PANAS; Watson, Clark, & Tellegen, 1988), two reliable and valid, 10-item measures of positive affectivity (PA) and negative affectivity (NA). Each item (e.g., distressed, strong) was rated on a scale from 1 (*very slightly or not at all*) to 5 (*extremely*). In the current sample the measures of NA ($\alpha = .83$) and PA ($\alpha = .85$) had satisfactory reliabilities.

Teacher daily diary (TDD). Studies that have used diaries to document events occurring at work (e.g., Marco, Neale, Schwartz, Shiffman, & Stone, 1999) often electronically contact participating workers at a number of randomly selected moments during the work day to obtain assessments in real time.

Table 3. Structure of the Teacher Daily Diary

The order of the items in the Teacher Daily Diary	No. of items
Part 1, answered any day (school days, weekends, holidays)	
Nine mood items	
Positive-negative mood	7
Alert-tired	2
Additional mood items	
Overall mood	1
Energy level	1
Job Satisfaction	1
Part 2, answered only on school days	
Problematic adults as stressors ^a	7
Coping with the one greatest stressor in category ^a	17
Classroom management stressors	8
Coping with the one greatest stressor in category ^a	32
Violent stressors ^a	13
Coping with the one greatest stressor in category ^a	33
Student having difficulty learning what teacher is teaching ^b	1
Coping with the stressor ^a	17
Excessive paperwork or administrative work ^b	1
Coping with the stressor ^a	14
Teacher observed ^b	1
Coping with the stressor ^a	16
Wrongfully accused ^b	1
Coping with the stressor ^a	30
Student experiencing great emotional upset ^b	1
Coping with the stressor ^a	25

a. Includes an "other" item in which the teacher writes in a stressor (or coping response).

b. This stressor category was covered by an individual item.

Such methods could not be implemented in this study because of (a) coordination obstacles (the teachers worked in a great variety of schools) and (b) the likelihood that interruptions would occur in the middle of class. The teachers were therefore asked to complete the TDD online once per day after school. The entire Diary takes between 10 and 15 min to complete on the first work day it is used, and 5 min or less on subsequent work days.

TDD, Part 1. As indicated in Table 3, the TDD comprised two parts. The first part was to be completed every day whether a school day, the weekend, or a holiday, and principally comprised mood items (not relevant to this study) and a job satisfaction item.

The job satisfaction item was a variant of a commonly used item, "Overall, how satisfied are you today with your job? ANSWER EVEN IF YOU DID NOT TEACH TODAY . . . Very dissatisfied (1), Dissatisfied (2), Neutral (3), Satisfied (4), Very satisfied (5)" (see Quinn & Staines, 1979; Schonfeld, 2001). There is good evidence, over many studies, to indicate that this single-item measure is reliable and valid (Wanous, Reichers, & Hudy, 1997).

TDD, Part 2. The second part of the TDD (see Table 3) was to be completed *only* on school days. The second part included three sets of items that covered stressors having a similar theme. The first set of stressors included adults (e.g., "Among the events you experienced today, did any of the following adults treat you in a HIGHLY unfair, HIGHLY unpleasant, or HIGHLY problematic manner?" Another teacher; An administrator; A student's caregiver; etc.). Another set of items included classroom management problems short of violence (e.g., "Today did you experience any of the MAJOR classroom management problems (serious misbehavior or serious disruption; not minor problems) described here? (Do NOT include violence, which is covered in item 26 below.); "Student[s] had nonviolent confrontation with you;" "Nonviolent student-ON-STUDENT confrontation"; "Student[s] disrupted your class"; etc.) The third set included violence-related incidents (e.g., a student physically harmed another student; a student threatened the teacher with violence; the teacher was physically harmed, etc.). The stressor items were neutrally worded, with no reference to how the teacher felt about the incident or its aftermath, which is consistent with the goal of minimizing confounding with preexisting psychological distress (see Kasl, 1987; Schonfeld, Rhee, & Xia, 1995). The three thematic sets of items (problematic adults, classroom management problems, and violence) also included space to allow teachers to volunteer observations.

The above pattern was largely repeated but for one-stressor themes. These single stressors included an encounter with a student who "GENUINELY had SERIOUS difficulty learning" what the teacher was teaching; a day with an excessive amount of paperwork or administrative work; a day in which a supervisor observed the teacher teach; "a student or adult WRONGLY" reporting the teacher for malfeasance; encountering "a student who showed GREAT emotional upset." The remaining items, which concerned certain dimensions of stressors and coping with stressors, are not relevant to this article.

Data analyses. The chi-square test of association, the Mantel-Haenszel extension of the chi-square test (Fleiss, 1981), and the *t* test for independent samples were employed to compare alternatively and traditionally certified teachers on demographic, school, and personality variables.

Hierarchical linear modeling (HLM; Raudenbush & Bryck, 2001; Raudenbush, Bryck, Cheong, Congdon, & du Toit, 2004) procedures and Mantel-Haenszel tests were used to compare the alternatively and traditionally certified teachers on extent of exposure to stressors. At the individual item level, HLM was employed to compare the two groups of teachers on the daily occurrence of individual stressors, controlling for grade, a between-people factor on which alternatively and traditionally certified teachers tended to differ. A stressor's occurrence on any day was coded 0-1 (absent-present) and treated as a Bernoulli trial, and regressed on a dummy variable representing certification status and grade, which was represented by two 0-1 dummy variables representing elementary (including kindergarten and pre-K), junior high, and high school (results shown in Table 5). The Mantel-Haenszel test was employed in the same table, to compare the two groups of teachers, adjusted for grade, on having *ever* been exposed to any stressor at least once during the 2-week period. In addition, a test of the homogeneity or equality of proportions (Fleiss, 1981) across grade was also applied whenever the Mantel-Haenszel statistic was employed.

HLM analyses were employed to examine certification-related differences in job satisfaction (Table 6). In multivariate analyses (Table 7) daily counts of the number of problematic adults and the number of classroom management problems were treated as Poisson variables and were regressed on certification status. Because the count of the number of daily violence-related incidents was skewed, that variable was treated as an absent-present Bernoulli trial and regressed on certification status. To understand why certification status could be linked to stressor exposure, potentially explanatory, between-person variables (race and sex of teacher, teaching in a SURR school, etc.) were entered into the HLM regression equations to account for differences in exposures.

Results

Profile of alternatively and traditionally certified teachers. Table 4 presents results comparing the alternatively and traditionally certified teachers on demographic, school, and personality variables. The table indicates that compared to the alternatively certified teachers, the traditionally certified teachers were about 5 years older and taught 3 years longer. Fellows and traditionally certified teachers were about as likely to be female; the alternatively certified teachers, however, were significantly more likely to be White. Consistent with their older average age, traditionally certified teachers were significantly more likely to be married. No significant differences in NA and PA were detected.

Table 4. Comparison of Alternatively Certified (Fellows) and Traditionally Certified Teachers on Demographic, School, and Personality Variables

	Alternatively certified teachers (n = 176)	Traditionally certified teachers (n = 76)	p
Gender	%	%	
Male	36.9	28.9	
Female	63.1	71.1	ns
Race/ethnicity ^a	%	%	
White	66.5	42.1	
Black	11.9	23.7	
Hispanic	12.5	25.0	
Asian	7.4	2.6	.001
Marital status	%	%	
Married	29.5	55.3	
Not married	70.5	44.7	.001
NA	19.4 (5.9)	18.4 (5.7)	ns
PA	36.2 (5.8)	37.2 (5.4)	ns
Grade	%	%	
Elementary ^b	24.4	47.4	
JHS	33.0	22.4	
HS	42.6	30.3	.001
Special education	%	%	
Entire class	14.8	15.8	
Small part of class	55.1	46.1	
No spec ed students	30.1	38.2	ns
Work in SURR ^c schools			
No	67.6%	85.5%	
Yes ^d	32.4%	14.5%	.01
Continuous variables	M (SD)	M (SD)	
Age	29.8 (8.6)	35.5 (9.3)	.001
Years teaching ^e	1.7 (2.2)	4.5 (4.2)	.001

Note: Differences on the categorical variables were assessed with the chi-square statistic. Yates's correction was applied to all chi-square statistics used with fourfold tables. The *t* test was used to assess differences on the continuous variables. NA = negative affectivity; PA = positive affectivity; JHS = junior high school; HS = high school.

a. To conduct the comparisons, and avoid near-empty cells, groups were collapsed (White vs. Non-White and White + Asian vs. the rest). Either comparison was statistically significant at the .001 level of significance.

b. Includes kindergarten and prekindergarten.

c. School Under Registration Review (official New York State designation for a school that failed to meet a number of performance criteria).

d. Teachers were stratified by grade and the Mantel-Haenszel statistic applied. A test of homogeneity indicated that the proportion of alternatively and traditionally certified teachers taught in SURR schools did not significantly vary by grade level.

e. The *t* test conducted here did not assume equal variances.

Table 5. Most Commonly Observed Stressors

Stressor	Alternately certified ^a % ^b (Frequency) ^c	Traditionally certified ^a % ^b (Frequency) ^c	p	Alternately certified: Experienced at least once % (n)	Traditionally certified: Experienced at least once % (n)	p
Problematic adults						
Another teacher	3.4 (46)	2.9 (16)	ns	19.3 (34)	18.4 (14)	ns
Administrator	7.1 (95)	5.1 (28)	ns	36.9 (65)	23.7 (18)	.07
Caregiver	1.6 (22)	1.5 (8)	ns	8.5 (15)	9.2 (7)	ns
Classroom management problems						
Confrontation with student(s)	13.5 (181)	5.7 (31)	.001	48.3 (85)	25.0 (19)	.01
Student-on-student confrontation	10.2 (137)	6.4 (35)	.12	39.8 (70)	23.7 (18)	.02
Student(s) disrupted class	38.4 (516)	27.2 (149)	.02	85.8 (151)	73.7 (56)	.10
Student(s) not paying attention	38.2 (513)	27.4 (150)	.03	85.2 (150)	76.3 (58)	.16
Student(s) refused to work	29.3 (394)	17.0 (93)	.01	72.2 (127)	44.7 (34)	.001
Badly behaved student transferred into class	4.2 (57)	2.6 (14)	.05	19.3 (34)	14.5 (11)	ns
Student(s) said something hurtful to you	6.3 (4)	2.2 (12)	.01	27.3 (48)	14.5 (11)	.11
Violence						
Student physically hurt another	5.4 (73)	3.3 (18)	.05	29.3 (50)	21.1 (16)	.14
Student threatened teacher	1.5 (20)	0.0 (0)	^d	9.1 (16)	0.0 (0)	.02
Single-item themes						
Student had genuine difficulty learning	35.8 (481)	32.7 (179)	ns	89.2 (157)	82.9 (63)	ns
Excessive paperwork	18.3 (246)	20.8 (114)	ns	60.8 (107)	59.2 (45)	ns
Wrongful accusation of malfeasance	4.5 (60)	6.4 (35)	.05	22.1 (39)	30.3 (23)	.13
Student experiencing great emotional upset	20.8 (279)	21.9 (120)	ns	73.9 (130)	71.1 (54)	ns

Note: Column 4 presents the results of HLM analyses comparing the alternately and traditionally certified teachers for risk of occurrence of each stressor on any work day. In every analysis, grade level was controlled. Column 7 presents results of Mantel-Haenszel tests comparing the two groups of teachers, stratified by grade, for risk of occurrence of any stressor at least once over the 2 weeks the teachers participated in study.

a. Because each teacher contributed data on multiple work days, each stressor was treated as an absent-present Bernoulli trial for each day; certification status was treated as a Level-2 between-people variable in the significance tests. There were 176 alternately certified teachers and 76 traditionally certified teachers.

b. The percentage reflects the proportion of all person-days the stressor occurred.

c. The frequency is reported regardless of how many days the stressor was experienced by any one teacher. The total number of days for alternately certified teachers was 1,343; the number for traditionally certified teachers was 547.

d. The zero cell prevented the analysis from converging.

Table 6. Job Satisfaction Over All Days

Dissatisfaction/satisfaction	Frequency	Percentage
1 = <i>Very dissatisfied</i>	209	8.0
2 = <i>Dissatisfied</i>	437	16.7
3 = <i>Neutral</i>	619	23.6
4 = <i>Satisfied</i>	985	37.5
5 = <i>Very satisfied</i>	374	14.3
Total	2624	100.0

The alternatively certified teachers were significantly more likely to teach older students as reflected in the higher proportion of Fellows teaching in junior high and high school, a finding that is in keeping with (a) NYC's efforts to recruit Fellows to fill personnel gaps, which have been more highly concentrated in secondary schools (V. Bernstein, NYC Department of Education, personal communication, Jan. 27, 2010) and (b) the proportions of teachers attending the programs at the school of education at which they were recruited. Both groups of teachers were about equally likely to teach students in special education. The alternatively certified teachers were more likely to teach in SURR schools, consistent with research indicating that NYC's alternatively certified teachers, in comparison to their traditionally certified peers, were more likely to work in high-need schools (Boyd et al., 2008).

Commonly occurring stressors. Table 5 enumerates the most commonly occurring stressors the teachers encountered. Columns 2 and 3 provide a count of how many times an individual stressor occurred regardless of the number of times any one teacher reported its occurrence. Columns 5 and 6 provide the numbers and percentage of teachers who encountered the stressor at least once during the 2-week period surveyed.

The adults who most often were sources of difficulty for the participants were administrators and, to a lesser extent, other teachers. Alternatively and traditionally certified teachers did not significantly differ in the rates of difficulties with other adults although there was a marginal trend suggesting that alternatively certified teachers were more likely to experience difficulties with administrators.

Classroom management problems were manifold. These included students disrupting lessons, not paying attention, and confronting teachers and each other. Having some students who refused to work was a common occurrence. Other stressors related to classroom management included having "badly behaved" students transferred into classes and students directing hurtful

Table 7. Comparison of Alternatively Certified (Fellows) and Traditionally Certified Teachers on Number of Daily Stressors Encountered

Stressors affected	Fellow effect on no. (or occurrence) of daily stressors β (SE)	Event ratio or odds ratio ^a	<i>p</i>
Problematic adults	0.10 (0.20)	1.11	<i>ns</i>
Classroom management problems	0.44 (0.11)	1.55	.001
Effect after controlling JHS	0.40 (0.11)	1.50	.001
Black or Hispanic teacher	0.39 (0.12)	1.48	.01
JHS + Black or Hispanic	0.32 (0.13)	1.38	.02
Violent incidents	0.62 (0.26)	1.86	.02
Effect after controlling JHS	0.56 (0.26)	1.75	.03
Yrs teaching	0.48 (0.26)	1.61	.08
SURR	0.50 (0.26)	1.65	.06
SURR + JHS	0.47 (0.25)	1.60	.07
Yrs teaching + SURR	0.34 (0.27)	1.41	<i>ns</i>

Note: The first two sets of stressors, problematic adults and classroom management problems, represent daily counts of the number of stressors within each category and each was treated as a Poisson variable. HLM equations were written to examine the relation of Fellow status to these counts. Although the occurrence of violent incidents was also a count variable, there were relatively few cases in which two or more incidents occurred in a day. The variable was therefore treated as an absent-present Bernoulli trial. JHS = junior high school; SURR = Schools Under Registration Review.

The next four sets of stressors (student having great difficulty learning, excessive paperwork, wrongful accusations of malfeasance, and encounters with students experiencing serious emotional upset) represent the daily presence or absence of a discrete stressor. HLM equations were written to examine the relation of Fellow status to these dichotomously coded Bernoulli variables, but results shown in Table 4 and described in relevant text indicate that there were no important certification-related differences.

a. The event ratio applies to the count variables (problematic adults and classroom management problems) and the odds ratio, to the dichotomously coded violent-incidents variable (which includes threats of violence). The event ratio reflects how much greater the rate of occurrence of the stressor is in Fellows as compared to traditionally certified teachers. The odds ratio reflects how much greater the odds of a stressor occurring among the Fellows than among the traditionally certified teachers.

comments at teachers. Compared to the traditionally certified teachers, the alternatively certified teachers tended to experience classroom management problems at significantly higher daily rates. With regard to one particular management problem in which traditionally and alternatively certified teachers differed, that of students refusing to work at least once over the 2-week period, a test of the heterogeneity of the rates by grade was marginally significant ($p < .06$), and an inspection of the rates indicated that although

alternatively certified teachers tended to have more such difficulties at every level, alternatively certified teachers experienced much more extensive difficulties with older students (in elementary school 60% of alternatively certified teachers to 47% traditionally certified teachers; 91% to 53% in junior high school; and 79% to 36% in high school). We do not put much weight in the significantly higher rate at which poorly behaved students transferred into Fellows' classes (4.2%); the rate was 62% higher than the rate experienced by traditionally certified teachers (2.6%). The statistical test is sensitive to multiplicative differences in proportions. The absolute difference was only 1.6%.

With regard to violence, more than 25% of the combined sample reported at least one occurrence of a student physically hurting another student within the 2-week time frame of the study. Although less frequent, but still of concern, is that about 9% of the alternatively certified teachers reported having been threatened with physical violence over the 2-week period. Other stressors were very common. Most teachers reported encountering students who "genuinely had serious difficulty learning" (87% of the combined sample) or students who were experiencing great emotional upset (73% of the combined sample). About one quarter of the teachers (combined sample) reported having been accused—by either a student or an adult—of some kind of malfeasance (e.g., poor teaching, dereliction of duty) over the 2-week period.

The marginally significant difference between alternatively and traditionally certified teachers on the item reflecting accusations of malfeasance looks anomalous given the similarly low rates (4.5% vs. 6.4%). The marginally significant difference, again, reflects the fact that the rate for traditionally certified teachers is 42% higher than the rate for Fellows. Because the absolute difference is small (less than 2%), we believe that there is no practical difference for the two groups of teachers. Not shown in the table is the finding that 58% of the alternatively certified Fellows were observed by a supervisor over the 2-week period and 38% of the traditionally certified teachers were observed ($p < .01$).

Table 6 displays the frequency distribution of the responses to the job satisfaction item. The modal response reflected the alternative "satisfied" and the second most commonly selected response was "neutral." The mean value was 3.33. HLM analyses indicated that the within-person variance component was 0.60 and the between-persons variance component, 0.74, indicating that 55% of the total variance reflected stable differences among teachers and 45%, reflected day-to-day fluctuations. Compared to traditionally certified teachers, the alternatively certified Fellows were slightly (about one quarter of a point) but significantly more likely to express satisfaction with their teaching positions ($\beta = 0.24$, $SE = 0.12$, $p < .05$).

Table 7 presents the results of a set of HLM analyses examining the relation of certification status to exposure to stressors/difficulties on which the two groups of teachers differed as per the results summarized in Table 5. Table 7 indicates that being an alternatively certified teacher was related to significantly increased risk of daily exposure to classroom management problems and to daily exposure to violence. The analysis bearing on management problems was repeated with one stressor, poorly behaved students transferred into class, removed from the count because transfers were less likely to be dependent on the teacher. The results remained essentially unchanged. Certification status was not significantly related to exposure to problematic adults.

The HLM analyses were expanded to attempt to explain the link between certification status and exposure to classroom management problems and violent incidents. The only variables to help explain the link between Fellow status and classroom management problems were teaching in a junior high school and ethnicity (Hispanic and Black teachers having fewer problems than Asian and White teachers). The two factors slightly reduced the effect size; alternative certification status, however, remained significantly related to management problems. No other factors (e.g., years teaching, SURR schools) reduced the effect size.

At least three factors helped explain the link between Fellow status and exposure to violent incidents: working in a junior high school, years of teaching, and working in a SURR school. The combination of years of teaching and working in a SURR school reduced the effect associated with alternative certification status to nonsignificance.

Discussion

Consistent with the event proneness model, the less extensively trained alternatively certified teachers, compared to their traditionally certified colleagues, experienced more classroom management difficulties. The classroom management problems included students disrupting lessons, not paying attention, refusing to work, and confronting the teacher. Given the greater need, this result is consistent with the finding that the Fellows were more often observed by supervisors. Teachers from both groups reported in about equal measure problematic interactions with colleagues and caregivers although the alternatively certified Fellows experienced marginally more difficulties with administrators. The Fellows also experienced more threats from students. A student physically hurting another student was a common occurrence for both groups of teachers. Both groups commonly encountered students who had genuine difficulty learning or were experiencing great emotional upset.

One quarter of the teachers reported that they were wrongfully accused of some kind of malfeasance. Excessive paperwork was a commonly encountered difficulty.

It is possible that factors other than certification status account for the observed differences. The two groups, however, were about equally likely to teach children in special education. The two groups did not differ on NA and PA, undermining the hypothesis that these personality dimensions underlie differences in exposure to stressors. It could be argued that because of the way the NYC Department of Education selectively recruits Teaching Fellows, the Fellows, on average, were more accomplished academically than their traditionally certified colleagues (Boyd et al., 2008; Kane, Rockoff, & Staiger, 2008). Given a vast amount of research that indicates that intellectual capacity is related to occupational success in a great variety of jobs (Hunter, 1986; Schmidt & Hunter, 2004), one would expect the Fellows to excel their traditionally certified colleagues. The findings, however, show no advantage for the alternatively certified teachers. Kane et al. (2008) found little evidence that Teaching Fellows' students outperform students of traditionally certified teachers given controls for prior student achievement and other covariates.

Given the Fellows' hurried training, the event proneness model would suggest that the alternatively certified teachers would be more vulnerable to classroom management problems. The Fellows, however, were more likely to teach older students in SURR schools, which could explain the Fellows' higher rate of management problems. Analyses that adjusted for grade taught, SURR status, and years teaching revealed that the Fellows still experienced significantly higher levels of classroom management problems. It should, nonetheless, be noted that the Fellows' fewer years of teaching experience and greater likelihood of working in SURR schools fully accounted for their higher rate of exposure to incidents involving violence or its threat.

Although Alvarez (2007) provided suggestive evidence that teacher training influences teacher management practices, the problem of cherry picking results in regression analyses (see Table 3, p. 1119) undermines confidence in those findings. Ritter and Hancock (2007) found little difference in the classroom management orientation of traditionally and alternatively certified teachers when they had less than 5 years experience, which largely characterizes the teachers in the present study. Although years of experience did not account for the difference in certification-related risk of experiencing classroom management problems in the present study, Ritter and Hancock's findings suggest differences may emerge after 5 years. While we found that the alternatively certified Fellows generally experienced more classroom management problems, traditionally certified teachers still experienced *high* absolute

rates of management problems (e.g., student disruption). We emphasize that, although alternatively certified teachers were more likely to teach in SURR schools, large numbers of children from impoverished homes could be found throughout the NYC school system. In excess of 76% of NYC schoolchildren received free or reduced-price lunch from 2000 to 2007 (Kids' Well-being Indicators Clearinghouse, 2010), making it virtually impossible for the bulk of traditionally certified teachers to be exempt from serving high-need children.

The two groups of teachers did not differ in total number of problematic adults encountered (Table 7), students having difficulty learning, excess paperwork, wrongful accusations, and student upset. On balance, although the alternatively certified teachers experienced significantly more stressors related to classroom management, traditionally certified teachers were far from immune to such problems.

Limitations. A limitation of the study is that the sample comprised teachers attending graduate courses at one college. Another is that those who volunteered to participate could have self-selected on the basis of high levels of problems with their jobs. Four factors, however, suggest that self-selection does not explain the findings. First, the Fellows, who constituted a substantial fraction of the participating teachers, represent an elite corps of teachers that school authorities recruited because of their promise. Second, the levels of job satisfaction found in both groups of teachers were consistent with levels found in other studies involving veteran (Schonfeld, 1990) and novice (Schonfeld, 2001) New York teachers. Third, the distribution of the Fellows and the traditionally certified teachers by grade and by placement in SURR schools is consistent with what is known about the population of NYC teachers (V. Bernstein, personal communication, Jan. 27, 2010; Boyd et al., 2008; Kane et al., 2008). Fourth, the finding that assignment to SURR schools helped explain the greater exposure of Teaching Fellows to violence is consistent with what we know about the problematic nature of those schools (Herszenhorn, 2007). Nonetheless, replication studies with more representative samples of alternatively and traditionally certified teachers would be useful.

Another limitation is the greater proportion of alternatively certified teachers in junior and senior high schools. One could argue that with older students classrooms are more difficult to manage, and the higher rates of classroom management problems confronting alternatively certified teachers reflect the greater likelihood of alternatively certified teachers obtaining jobs in those schools. Findings summarized in Table 5, however, indicate that alternatively certified teachers experienced higher rates of classroom management problems when compared to their traditionally certified colleagues whether the

comparisons are made at the elementary, middle, or high school level. At the same time, it is important to acknowledge that smaller numbers of alternatively certified teachers worked in elementary schools and small numbers of traditionally certified teachers taught older students.

Implications. The findings underline the fact that teaching, particularly at the early stages of a career, is highly demanding. Although the alternatively certified teachers more often experienced classroom management problems, both the Fellows and the traditionally certified teachers faced most other demands, including problematic adults, violence, and student learning difficulties at about equal rates. These teachers experienced considerable stress. Compared to student disruption, school violence occurred much less often. One quarter of teachers (both samples combined) observed at least one episode of student-on-student violence within a 2-week period. The results also indicate a “low” (9%) but insidious rate of alternatively certified teachers being threatened with violence. This “low” rate is actually not low if one considers that it reflects a 2-week period in a 42-week school year.

Having to confront students who are hurting each other is a difficult, stressful task. Job stress increases the risk of job-leaving (Miller et al., 1999; Schonfeld, 2001; Steggerda, 2003). Burstein and Sears (1998) found that among alternatively certified teachers, although competencies increased over time, the stresses remained stable. Teacher attrition, a problem confronting many urban school districts (Boyd et al., 2005; Ingersoll, 2003; Ingersoll & Smith, 2003), is costly. The cost of the teacher induction programs such as the New York City Teaching Fellows Program is multiplied if individuals join the profession only to leave within 3 years (see Darling-Hammond, 2003). Morris-Surles (2002) found that among alternatively certified teachers, self-identified potential leavers had lower levels of job satisfaction and more self-reported stress than potential stayers. The data from this study suggest areas for improvement.

Recommendations

Study implications bear on school violence, classroom management, and teacher morale. A number of recommendations emerge from those implications.

School Violence

Because most of the problems the teachers faced are preventable, we suggest prevention measures. Violence is the most serious problem identified in this study. We stress that a number of violence-prevention programs have

demonstrated a degree of success in well-controlled studies (Howard, Flora, & Griffin, 1999; Scheckner, Rollin, Kaiser-Ulrey, Wagner, 2002; Schonfeld, 2006) and can be implemented in more schools. Once violence occurs, however, administrators have to think seriously about how to deal with students (or adults) who instigate violence in schools or threaten to use violence. After all other violence-prevention measures have been exhausted, and because rights are not unlimited, thought should be given to assigning students who instigate or threaten violence to alternative placements.

Classroom Management

Classroom management difficulties are the most widespread problems. Clues to solving these problems could be found in qualitative observations of teachers who participated in the preliminary, item-development study.

Schools of education. Some teachers complained that the graduate courses they anticipated would help them did *not* provide sufficient content in the area of classroom management, consistent with evidence that many professors in schools of education do not emphasize practical matters such as classroom discipline (Farkas, Johnson, & Duffet, 1997). By contrast, many teachers want such content given emphasis in education courses (Farkas et al., 1997). In addition, professors at schools of education tend to have little public school teaching experience (Gold, 2006; Ratner, 2006). Teaching Fellows have elsewhere voiced complaints about the lack of emphasis in schools of education on the practical matter of managing a class (Costigan, 2004). Schools of education should offer courses taught by experienced teachers with expertise in classroom management and behavioral specialists who can both provide instruction and troubleshoot problems new teachers face.

Mentoring. Some teachers reported that they would like to get help with classroom management problems; they, however, worried that asking for help from administrators or senior faculty would make the teachers vulnerable to appearing incompetent to the individuals who make decisions bearing on job security. Although this observation is especially relevant to the alternatively certified teachers because they had more classroom management difficulties, it applies to all teachers. In some schools, teachers observed highly adversarial relationships with administrators, disinclining the teachers from seeking help (Schonfeld & Farrell, 2010). Other teachers reported that senior colleagues who had been designated as teacher mentors were helpful with classroom management challenges, while other teacher mentors were unhelpful because their focus was limited to instruction and did not extend to management.

A key to solving the problem of helping novice teachers experiencing problems in the domain of classroom management is to arrive at solutions that neither embarrass the teacher nor put his or her job in jeopardy when seeking help. There is a need for a particular kind of mentor system. According to Matus (1999), novice teachers who are not prepared to teach in large, inner-city schools may be overwhelmed by the magnitude of problems they face and are more likely to quit. Mentor-type relationships have been found to be effective in helping new, alternatively certified urban teachers. Mentors can play a central role in helping new teachers gain pedagogical skill (Jorissen, 2002). Mentors have facilitated the transfer of skills acquired in teacher-education courses to the classroom, encouraged new teachers to become part of the professional school culture, and helped to promote teacher candidates' personal and professional success. In mentoring programs, teacher interactions with colleagues around matters of practice should be largely private. Administrators can build into schedules short blocks of time during which (a) a novice teacher can meet privately and informally with an experienced mentor and (b) the mentor can observe his or her junior partner with *no* obligation to write formal reports that could be placed in the teacher's personnel file.

Teacher Morale

Another key toward helping new teachers gain mastery lies in a vast literature in psychology and allied disciplines, a literature that often goes unrecognized by educational researchers. This literature indicates that one of the most important factors affecting job tenure and satisfaction is workplace autonomy (e.g., Barling, Kelloway, & Iverson, 2003; Greenberg & Grunberg, 1995; Karasek, 1979; Karasek et al., 1988). The New York City teachers in this study have anecdotally reported that they often feel hemmed in by curricular restrictions and administrative insistence on their using highly scripted lessons, and feel little professional autonomy. For example, one teacher participant complained to the first author that administrators enforce a rule that she must employ a "workshop model" that requires her to have students work in small groups much of the school day although the small-group work leads to a great deal of disruption. The teacher referred to a model of elementary instruction (Calkins, 2001; also see Towle, 2000), particularly in reading and writing, that is mandated in NYC public schools (NYC Dept. of Education, 2010; personal communications with various administrators in the NYC Dept. of Education, June 2010; Ravitch, 2007). To prepare her students

for high-stakes tests, she quietly and, according to her, successfully broke out of the workshop mold and provided her entire class with direct instruction although fearful that she would be found out by administrators, and reprimanded.

Although there is much that is admirable in the workshop model, for example, its emphasis on the social dimension of reading, oddly we could find little in the way of a rigorous evaluation of the approach. The one evaluation (Bitner, 1992) we could locate, a quasi-experiment involving eighth graders, found no significant difference in the impact on vocabulary and comprehension of the workshop model and a traditional approach involving direct instruction. By contrast, other models of reading instruction have been rigorously evaluated (e.g., Ehri, Dreyer, Flugman, & Gross, 2007; Foorman, Francis, Fletcher, Mehta, Schatschneider, 1998) and could be made available to teachers. Teachers differ on their preferred approaches to instruction, and their morale could benefit from increased autonomy. We suggest that teachers be offered choices regarding their approach to teaching subject matter among evidence-based avenues of instruction. By demanding that new teachers conduct lessons in one particular way and putting their jobs at risk for not following such a demand is to impose a top-down military model on talented entrants into the profession such as NYC Teaching Fellows. Such demands alienate these newcomers whose academic achievements qualify them for good jobs outside of teaching. One approach to autonomy is experience-graded. In this case, administrators would cede autonomy to teachers as teachers gain experience. New entrants into a work role probably need the most help and direction. With experience, the teacher gains increased autonomy, in terms of more discretion in organizing his or her own approach to the classroom, improving morale. According to a growing body of evidence in the occupational health psychology literature, depriving people who work of discretion to make important workplace decisions will depress morale and increase job leaving.

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