

STATS IN BRIEF

U.S. DEPARTMENT OF EDUCATION

MARCH 2018

NCES 2018-103

Public School Teacher Autonomy, Satisfaction, Job Security, and Commitment: 1999–2000 and 2011–12

AUTHOR

Catharine Warner-Griffin
Brittany C. Cunningham
Amber Noel
Insight Policy Research

PROJECT OFFICER

Isaiah O'Rear
National Center for Education Statistics

Statistics in Brief publications present descriptive data in tabular formats to provide useful information to a broad audience, including members of the general public. They address simple and topical issues and questions. They do not investigate more complex hypotheses, account for inter-relationships among variables, or support causal inferences. We encourage readers who are interested in more complex questions and in-depth analysis to explore other NCES resources, including publications, online data tools, and public- and restricted-use datasets. See nces.ed.gov and references noted in the body of this document for more information.

Educational policy is often concerned with the retention of qualified and talented teachers (Guarino, Santibañez, and Daley 2006). Teachers' perceptions of autonomy (or control over classroom activities) and worry about job security may be avenues to improving teachers' satisfaction and commitment to teaching. This report describes differences between 1999–2000 and 2011–12 in public school teachers' perceptions of classroom autonomy, satisfaction, job security, and commitment to teaching. Building on a previous report describing public school teachers' autonomy since 2003–04, findings expand on the previous report with the use of 1999–2000 data and by detailing the relationships across perceived autonomy, satisfaction, job security, and commitment over time with particular attention to worry about job security and commitment to teaching (Sparks and Malkus 2015).

Prior research suggests that teachers who report higher levels of autonomy are also more likely to report higher levels of general satisfaction and lower rates of attrition (Guarino, Santibañez, and Daley 2006; Ingersoll and May 2012). Additionally, adverse working conditions, such as high workload and low levels of control are associated with lower levels of commitment to teaching (Weiss 1999).

This report was prepared for the National Center for Education Statistics under Contract No. ED-IES-13-C-0079 with Insight Policy Research, Inc. Mention of trade names, commercial products, or organizations does not imply endorsement by the U.S. Government.

Teachers with concerns about losing their jobs may be more likely to take proactive steps to find employment somewhere else. Indeed, studies show that teachers with low levels of trust in the education system who worry about job security also have lower levels of satisfaction and are at greater risk of burnout (Dworkin and Tobe 2014; Freiberg 2005; Reback, Rockoff, and Schwartz 2014; Weiss 1999).

Between 1999–2000 and 2011–12, several policy areas had the potential to influence teachers’ perceptions of these measures. Examples of such policy areas are as follows: new teacher evaluation and pay policies, accountability requirements for student performance within districts, the demand for highly qualified teachers, and the provision of special education services through the Individuals with Disabilities Education Act in 2006 (Darling-Hammond et al. 2012; Hanushek and Rivkin 2010; Rosenberg, Sindelar, and Hardman 2004). Research exploring the influence of accountability practices shows that levels of teacher satisfaction and commitment changed relatively little between 2000 and 2008 (Grissom, Nicholson-Crotty, and Harrington 2014). However, the specific measure examined may matter. Other studies during this time period suggest that teachers were less satisfied with working conditions, had negative perceptions of job security, and experienced increased time away from subjects not included in annual assessments during this time period (Gawlik 2007; Reback, Rockoff, and Schwarz 2014; Sunderman et al. 2004).

Also during this time period, workforce and demographic changes may have influenced teacher perceptions. Such changes include an increase in alternative certification programs for teachers graduating without a degree in education (Suell and Piotrowski 2007), an economic recession, and a 4-percent increase in total elementary and secondary student enrollment between 2000 and 2013 (Hussar and Bailey 2017). For this report, the school years 1999–2000 and 2011–12 were chosen to highlight teachers’ perceptions over the most recent 10 years of data, and a causal relationship with particular policy areas is not implied.

Data, Measures, and Methods

The data analyzed in this report are from the 1999–2000 and 2011–12 administrations of the Schools and Staffing Survey (SASS). SASS is a nationally representative sample survey of public (including charter) and private K–12 schools, principals, teachers, school districts, and library media centers in the 50 states and the District of Columbia. The sample for this report is limited to all regular, full-, or part-time public school teachers (excluding temporary, itinerant, or substitute teachers, and teacher aides) for grades K–12; the sample includes approximately 42,530 teachers in 1999–2000 and 35,830 teachers in 2011–12.

The report examines public school teachers’ perceptions of classroom autonomy based on six questions regarding selecting textbooks, teaching content, selecting teaching

techniques, evaluating and grading, disciplining students, and determining the amount of homework to be assigned. This construct of autonomy is not a direct measure, but it reflects teachers’ perceptions of autonomy based on the six survey items. Prior research has used this same measure to study perceptions of teacher autonomy (Grissom et al. 2014; Ingersoll and May 2012; Ingersoll and Alsalam 1997). Based on responses to these six items, teachers’ perceptions are classified into three levels of autonomy: high, moderate, and low.

While the questions assessing classroom autonomy remained consistent across SASS administrations in 1999–2000 and 2011–12, the range of the Likert scales used to assess classroom autonomy changed across administrations. In 1999–2000, the six questions measuring autonomy were based on a 5-point scale, where scale labels ranged from “no control” (1) to “complete control” (5). Starting in 2003–04 through 2011–12, autonomy has been measured on a 4-point scale, where scale labels range from “no control” (1) to “a great deal of control” (4). To accommodate these changes, the 5-point scale in 1999–2000 was adjusted by a constant of 4/5 to create a 4-point scale, where the response options range from (1) “no control” to (4) “a great deal of control.” More detail on this adjustment is included in the Technical Notes. Next, the 4-point scale was recoded to reflect three levels of autonomy for ease of analysis: responses equal to 4 reflect high autonomy, responses greater than or equal to 3 and less than 4 reflect moderate autonomy, and responses

less than 3 reflect low autonomy. In both survey years, the mean perceived autonomy was 3.2 on a scale of 1 to 4 (data not shown in tables).

Satisfaction is measured with a question on general satisfaction with being a teacher. Worry about job security is based on a question about worry about job security as a result of student performance on state or local tests. Two measures

are used to explore commitment to teaching: teachers' reported desire to remain in teaching and whether they would choose a teaching career again. For more information about the autonomy, satisfaction, job security, and commitment measures, see the Technical Notes.

Findings are based on data from the SASS teacher and school surveys

of 1999–2000 and 2011–12. All comparisons of estimates were tested for statistical significance using the Student's *t* statistic, and all differences cited are statistically significant at the $p < .05$ level. No adjustments were made for multiple comparisons. The comparisons reported do not present an exhaustive list of all statistically significant results from the study.

STUDY QUESTIONS

1 Do teachers' perceptions of classroom autonomy, satisfaction, job security, and commitment differ between 1999–2000 and 2011–12?

2 Do teachers' perceptions of satisfaction and job security vary with reported levels of autonomy? Do these patterns differ between 1999–2000 and 2011–12?

3 Do teachers' perceptions of commitment to teaching vary with reported levels of autonomy? Do these patterns differ between 1999–2000 and 2011–12?

KEY FINDINGS

- In both survey years, the majority of teachers perceived moderate levels of autonomy (figure 1).
- In 2011–12, a higher percentage of teachers reported strongly agreeing or somewhat agreeing they worry about job security as a result of student performance relative to 1999–2000 (table 1).
- A higher percentage of teachers with high autonomy perceived high general satisfaction and not being worried about job security compared to teachers with low autonomy in both survey years (figures 2 and 3).
- Compared to teachers who perceived low autonomy, larger percentages of teachers who reported high autonomy also reported they had plans to remain in teaching and would likely become a teacher again (figures 4 and 5).

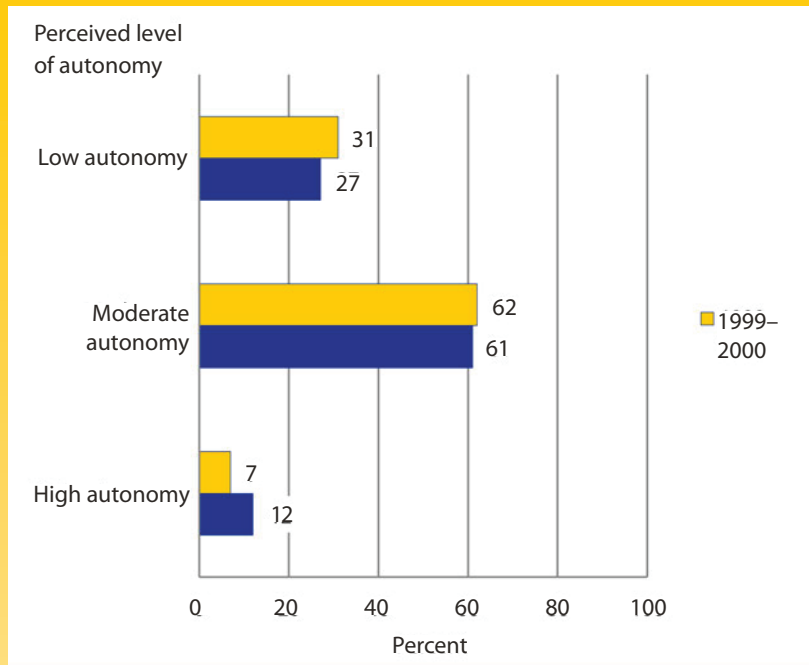
1

Do teachers' perceptions of classroom autonomy, satisfaction, job security, and commitment differ between 1999–2000 and 2011–12?

A higher percentage of teachers perceived high autonomy in 2011–12 compared to 1999–2000. As shown in figure 1, the percentage of teachers who perceived high autonomy was lower at 7 percent in 1999–2000 compared to 12 percent in 2011–12. A higher percentage of teachers in 1999–2000 (31 percent) reported low autonomy relative to teachers in 2011–12 (27 percent). While the majority of teachers perceived moderate autonomy in both survey years, there was no measurable difference in the percentage of teachers who perceived moderate autonomy between survey years.

FIGURE 1.

Percentage distribution of public school teachers, by perceived level of autonomy: School years 1999–2000 and 2011–12



NOTE: The autonomy scale indicates teachers' rating of how much control they have in their classrooms based on the following: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. Items are on a 4-point scale. "High" autonomy includes teachers who perceived "a great deal of control" for all six measures of classroom autonomy (average score of 4). "Moderate" autonomy includes teachers whose average response was lower than "a great deal of control" but equal to or greater than "moderate control" (average score from 3 up to 4). "Low" autonomy includes teachers whose average response was less than "moderate control" (average score less than 3). Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.

Table 1 displays the overall distribution of the 4-point scales for teacher general satisfaction with teaching and job security in schools across survey years. The percentage of teachers who strongly agreed they were satisfied with teaching was not measurably different at 54 percent in 1999–2000 and 2011–12. However, the percentage of teachers who strongly agreed they worry about the security of their jobs as a result of student performance

was higher in 2011–12 (13 percent) compared to 1999–2000 (7 percent).

Teachers expressed a greater commitment to teaching in 2011–12 compared to 1999–2000 (table 2), based on the following data. Seventy-six percent of teachers reported plans to remain in teaching in 2011–12, which was 2 percentage points higher than in 1999–2000. The percentage of

teachers with plans to leave teaching was 4 percentage points lower in 2011–12 (9 percent) than in 1999–2000 (13 percent). Table 2 also includes the 5-point scale for the measure of whether teachers would choose to become a teacher again. In the 1999–2000 school year, 40 percent of teachers reported they would certainly become a teacher again compared to 42 percent in 2011–12.

TABLE 1.

Percentage distribution of public school teachers, by reported satisfaction with teaching and worry about job security as a result of student performance: School years 1999–2000 and 2011–12

School year	Satisfied with teaching (4-point scale)				Worry about job security (4-point scale)			
	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
1999–2000	53.5	36.1	7.4	2.9	7.2	22.2	29.7	40.8
2011–12	54.0	36.1	6.5	3.3	12.9	31.5	27.8	27.7

NOTE: Detail may not sum to 100 because of rounding. To measure satisfaction and worry about job security, respondents were asked to indicate how much they disagree or agree with the following statements: “I am generally satisfied with being a teacher at this school” and “I worry about the security of my job because of the performance of my students or my school on state and/or local tests.” Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000, 2011–12, and Charter School Teacher Data File, 1999–2000.

TABLE 2.

Percentage distribution of public school teachers, by reported commitment to teaching: School years 1999–2000 and 2011–12

School year	Plans to remain in teaching			Would become a teacher again (5-point scale)				
	Yes	No	Undecided	Certainly	Probably	Chances are about even	Probably not	Certainly not
1999–2000	73.8	13.0	13.2	40.3	26.8	16.7	11.8	4.4
2011–12	75.8	9.4	14.8	42.4	24.1	17.2	11.5	4.7

NOTE: Detail may not sum to 100 because of rounding. Two questions measure commitment. First, respondents were asked, “How long do you plan to remain in teaching?” Response options changed between 1999–2000 and 2011–12; in 2011–12, response options also included “until a specific life event occurs.” Responses of “plan to leave as soon as I can,” “when a better job opportunity comes along,” “for personal reasons,” and “until a specific life event occurs” have been combined for estimates of “no.” The responses “as long as I am able” and “until I am eligible for retirement” have been combined for estimates of “yes.” Remaining teachers selected “undecided at this time.” Second, respondents were asked, “If you could go back to your college days and start over again, would you become a teacher or not?” Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File. SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000, 2011–12, and Charter School Teacher Data File, 1999–2000.

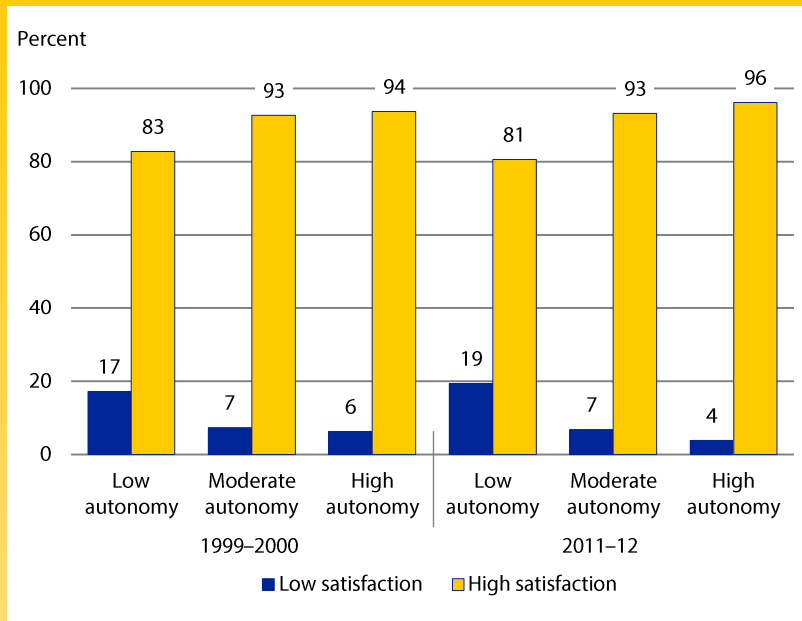
2 Do teachers' perceptions of satisfaction and job security vary with reported levels of autonomy? Do these patterns differ between 1999–2000 and 2011–12?

Teachers who reported high levels of perceived autonomy generally also reported high levels of satisfaction and job security in both 1999–2000 and 2011–12. A larger percentage of teachers with high perceived autonomy reported high satisfaction and job security relative to the percentage of teachers with low perceived autonomy who reported high satisfaction and job security.

More specifically, in 1999–2000 and 2011–12, higher percentages of teachers with high autonomy and higher percentages of teachers with moderate autonomy perceived high general satisfaction with teaching compared to teachers with low autonomy. For example, in 2011–12, some 96 percent with high perceived autonomy reported high satisfaction, and 93 percent of teachers with moderate perceived autonomy reported high general satisfaction. In contrast, 81 percent of teachers with low perceived autonomy reported high general satisfaction (figure 2). Ninety-four percent of teachers with high perceived autonomy reported high general satisfaction in 1999–2000 compared to 96 percent of teachers in 2011–12.

FIGURE 2.

Percentage distribution of public school teachers, by perceived level of autonomy and whether teachers reported worry about job security as a result of student performance: School years 1999–2000 and 2011–12



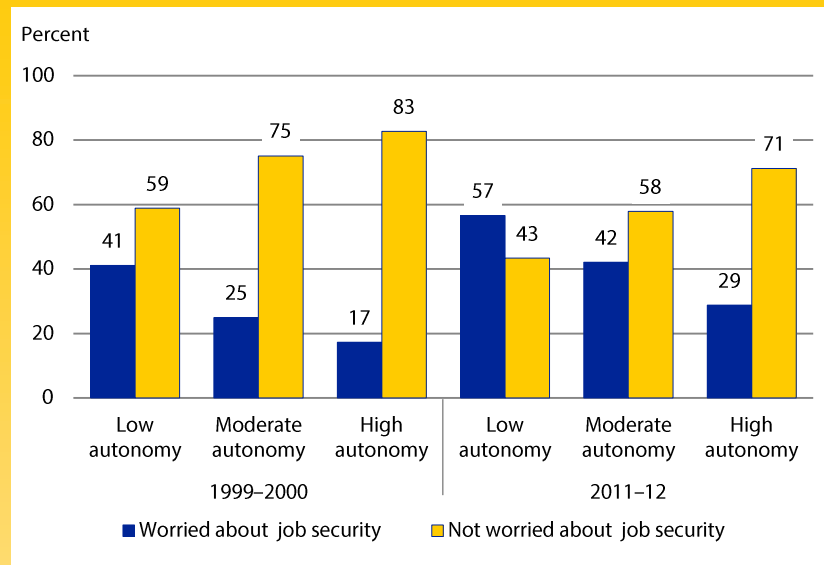
NOTE: Respondents were asked to indicate how much they disagree or agree with the following statement: “I worry about the security of my job because of the performance of my students or my school on state and/or local tests.” The responses “strongly agree” and “somewhat agree” have been combined for estimates of “worried about job security.” The responses “strongly disagree” and “somewhat disagree” have been combined for estimates of “not worried about job security.” The autonomy scale indicates teachers’ rating of how much control they have in their classrooms based on the following: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. Items are on a 4-point scale. “High” autonomy includes teachers who perceived “a great deal of control” for all six measures of classroom autonomy (average score of 4). “Moderate” autonomy includes teachers whose average response was lower than “a great deal of control” but equal to or greater than “moderate control” (average score from 3 up to 4). “Low” autonomy includes teachers whose average response was less than “moderate control” (average score less than 3). Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.

Figure 3 shows data for autonomy and worry about job security as a result of student performance. In 1999–2000, some 83 percent of teachers who reported high autonomy reported not worrying about the security of their jobs compared to 59 percent who perceived low autonomy and reported not worrying about job security as a result of student performance (figure 3). A similar pattern between autonomy and job security was observed in 2011–12; among teachers with high autonomy, 71 percent reported not worrying about job security as a result of student performance compared to 43 percent who perceived low autonomy and reported not worrying about job security because of student performance. In 2011–12, among teachers reporting low autonomy, the percentage who were worried about job security (57 percent) exceeded the percentage who were not worried (43 percent). A higher percentage of teachers at each level of autonomy reported worrying about job security in 2011–12 relative to 1999–2000.

FIGURE 3.

Percentage distribution of public school teachers, by perceived level of autonomy and whether teachers reported worry about job security as a result of student performance: School years 1999–2000 and 2011–12



NOTE: Respondents were asked to indicate how much they disagree or agree with the following statement: “I worry about the security of my job because of the performance of my students or my school on state and/or local tests.” The responses “strongly agree” and “somewhat agree” have been combined for estimates of “worried about job security.” The responses “strongly disagree” and “somewhat disagree” have been combined for estimates of “not worried about job security.” The autonomy scale indicates teachers’ rating of how much control they have in their classrooms based on the following: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. Items are on a 4-point scale. “High” autonomy includes teachers who perceived “a great deal of control” for all six measures of classroom autonomy (average score of 4). “Moderate” autonomy includes teachers whose average response was lower than “a great deal of control” but equal to or greater than “moderate control” (average score from 3 up to 4). “Low” autonomy includes teachers whose average response was less than “moderate control” (average score less than 3). Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.

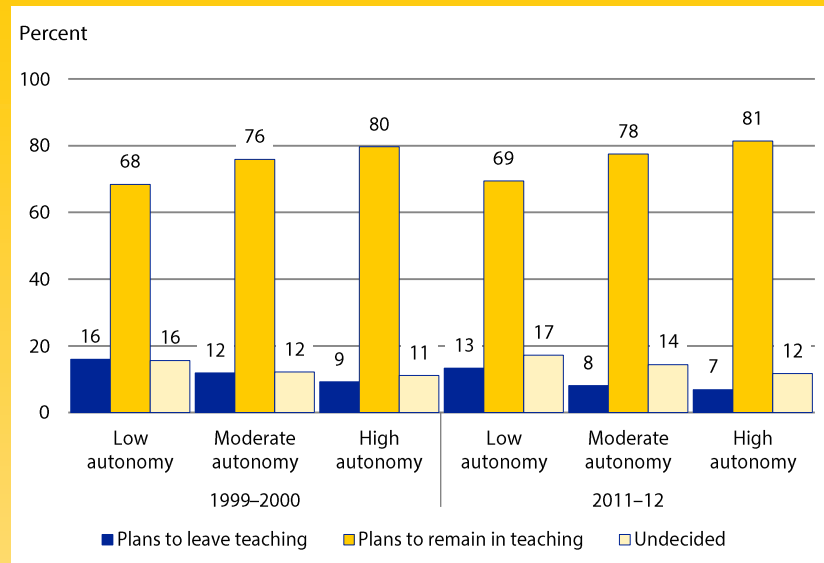
3 Do teachers' perceptions of commitment to teaching vary with reported levels of autonomy? Do these patterns differ between 1999–2000 and 2011–12?

A generally positive pattern between perceived autonomy and commitment was found in 1999–2000 and in 2011–12. For both measures of commitment, the percentage of teachers with high autonomy who also reported high commitment exceeds the percentage of teachers with low autonomy who reported high commitment. Looking at plans to remain in teaching, 80 percent of teachers who reported high autonomy in 1999–2000 also reported plans to remain in teaching, which was 11 percentage points higher compared to teachers who reported low autonomy. This difference was also present in 2011–12, when 81 percent of teachers who reported high autonomy also reported plans to remain in teaching, which was 12 percentage points higher compared to teachers who reported low autonomy (figure 4).

Considering patterns between 1999–2000 and 2011–12, a lower percentage of teachers in 2011–12 reported plans to leave teaching at each level of autonomy compared to teachers in 1999–2000 (figure 4). A higher percentage of teachers who reported moderate autonomy also reported plans to remain in teaching in 2011–12 compared to 1999–2000.

FIGURE 4.

Percentage distribution of public school teachers, by perceived level of autonomy and whether teachers reported worry about job security as a result of student performance: School years 1999–2000 and 2011–12



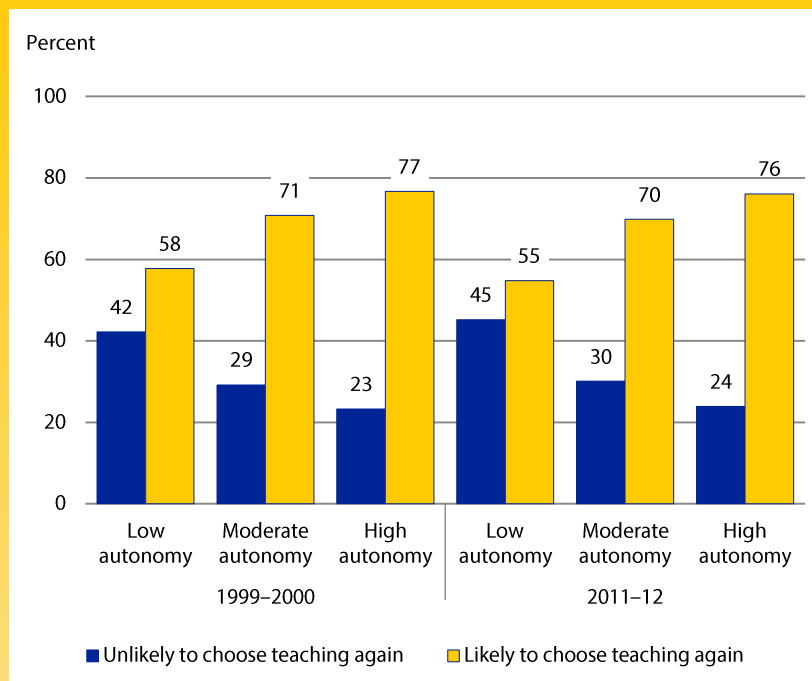
NOTE: Detail may not sum to 100 because of rounding. Respondents were asked, “How long do you plan to remain in teaching?” Response options changed between 1999–2000 and 2011–12. In 2011–12, response options included “until a specific life event occurs.” Responses of “plan to leave as soon as I can,” “when a better job opportunity comes along,” and “until a specific life event occurs” have been combined for estimates of “plans to leave teaching.” The responses “as long as I am able” and “until I am eligible for retirement” have been combined for estimates of “plans to remain in teaching.” Remaining teachers selected “undecided.” The autonomy scale indicates teachers’ rating of how much control they have in their classrooms based on the following: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. Items are on a 4-point scale. “High” autonomy includes teachers who perceived “a great deal of control” for all six measures of classroom autonomy (average score of 4). “Moderate” autonomy includes teachers whose average response was lower than “a great deal of control” but equal to or greater than “moderate control” (average score from 3 up to 4). “Low” autonomy includes teachers whose average response was less than “moderate control” (average score less than 3). Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.

For likelihood of choosing teaching again in 1999–2000 and 2011–12, a higher percentage of teachers who reported high autonomy reported they were likely to choose teaching again compared to teachers who reported low autonomy. In 1999–2000, some 77 percent of teachers who reported high autonomy reported they were likely to choose teaching again, and 58 percent of teachers who reported low autonomy reported they were likely to choose teaching again. In 2011–12, some 76 percent of teachers who reported high autonomy reported they were likely to choose teaching again, and 55 percent of teachers who reported low autonomy reported they were likely to choose teaching again (figure 5).

FIGURE 5.

Percentage distribution of public school teachers, by perceived level of autonomy and likelihood of choosing teaching again: School years 1999–2000 and 2011–12



NOTE: Respondents were asked, “If you could go back to your college days and start over again, would you become a teacher or not?” Responses of “chances are about even for and against,” “probably would not become a teacher,” and “certainly would not become a teacher” have been combined for estimates of “unlikely to become a teacher again.” The responses “certainly would become a teacher” and “probably would become a teacher” have been combined for estimates of “likely to become a teacher again.” The autonomy scale indicates teachers’ rating of how much control they have in their classrooms based on the following: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. Items are on a 4-point scale. “High” autonomy includes teachers who perceived “a great deal of control” for all six measures of classroom autonomy (average score of 4). “Moderate” autonomy includes teachers whose average response was lower than “a great deal of control” but equal to or greater than “moderate control” (average score from 3 up to 4). “Low” autonomy includes teachers whose average response was less than “moderate control” (average score less than 3). Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.

FIND OUT MORE

For questions about content, to order additional copies of this *Statistics in Brief*, or view this report online, go to:

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018103>

More detailed information about teacher autonomy, commitment, and satisfaction appears on the National Center for Education Statistics (NCES) website. Readers may be interested in the following NCES products related to the topic of this *Statistics in Brief*:

Public School Teacher Attrition and Mobility in the First Five Years: Results From the First Through Fifth Waves of the 2007–08 Beginning Teacher Longitudinal Study (NCES 2015-337). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015337>

Public School Teacher Autonomy in the Classroom Across School Years 2003–04, 2007–08, and 2011–12 (NCES 2015-089). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015089>

To Teach or Not to Teach? Teaching Experience and Preparation Among 1992–1993 Bachelor's Degree Recipients 10 Years After College (NCES 2007-163). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2007163>

Additional recent information from the Schools and Staffing Survey appears in the following publications also produced by NCES:

Education and Certification Qualifications of Public Middle Grades Teachers of Selected Subjects: Evidence From the 2011–12 Schools and Staffing Survey (NCES 2015-815). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015815>

How Principals in Public and Private Schools Use Their Time: 2011–12 (NCES 2018-054). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018054>

Sources of Newly Hired Teachers in the United States: Results From the Schools and Staffing Survey, 1987–88 to 2011–12 (NCES 2016-876). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2016876>

Teacher Professional Development by Selected Teacher and School Characteristics: 2011–12 (NCES 2017-200). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2017200>

Trends in Public and Private School Principal Demographics and Qualifications: 1987–88 to 2011–12 (NCES 2016-189). <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2016189>

TECHNICAL NOTES

The Schools and Staffing Survey (SASS) was collected by the U.S. Census Bureau on behalf of the National Center for Education Statistics of the Institute of Education Sciences within the U.S. Department of Education. The estimates provided in this *Statistics in Brief* focus on data collected in two administrations of SASS (1999–2000 and 2011–12). The SASS teacher questionnaires were designed to obtain information on topics such as classroom organization, teaching assignment, education and training, certification, workload, and perceptions and attitudes about teaching. Estimates reported include regular, full-, or part-time public school teachers (excluding itinerant teachers, substitute teachers, and teacher aides) for grades K–12 with approximately 42,530 teachers in 1999–2000 and 35,830 teachers in 2011–12.

Survey Methodology for Public Schools

Schools were sampled from the Common Core of Data (CCD). The sample was allocated so national-, regional-, and state-level elementary, secondary, and combined public school estimates could be made. The SASS sample is a stratified probability-proportionate-to-size (PPS) sample, and all public schools underwent multiple levels of stratification. The sample was allocated to each state by grade range, and within each stratum, all public schools were selected systematically using a PPS algorithm based on the school's teacher count. Within each school, teachers were sorted by years of experience, the subject matter taught, and the teacher line number code. Charter schools were first sampled for SASS during

the 1999–2000 school year. During this school year, a universe of charter schools was created and all schools on the list were sampled with certainty. For subsequent administrations, charter schools were sampled as part of the public school collection using the same PPS methods as traditional schools.

SASS was collected as a self-administered, mail-based survey with telephone follow-up, and in later years, field follow-up. Survey responses were returned to the Census Bureau, where both central processing and headquarters staff reviewed returned questionnaires, captured data, and implemented quality control procedures. Responses were carefully checked and edited. After editing, cases with “not-answered” values were imputed for questionnaire items that respondents did not answer (1) using data from other items on the questionnaire, (2) extracting data from a related component of SASS, (3) extracting data from the sampling frame (CCD), and (4) extracting data from the record of a sampled case with similar characteristics using a “hot deck” imputation procedure.

Response Rates, Weighting, and Variance Estimation

The weighted teacher questionnaire response rates for public school and charter school teachers were 83 and 79 percent, respectively, in 1999–2000. The weighted teacher questionnaire response rate for public school teachers (including charter school teachers) in 2011–12 was 78 percent. The weighted overall teacher questionnaire response rates for public school teachers and charter school teachers were 77 and 72

percent, respectively, in 1999–2000, and 62 percent for public school teachers (including charter school teachers) in 2011–12. No evidence of unit nonresponse bias was found for domains used in this report; in 1999–2000 unit nonresponse bias was assessed at levels below 75 percent, and in 2011–12 unit nonresponse bias was assessed at levels below 85 percent. No survey items used in this report were missing at rates greater than 85 percent that would require item-level nonresponse bias analyses.

Estimates were weighted to adjust for the unequal probability of selection and enable the production of national and state estimates. The starting point was the base weight, which was calculated as the inverse of the sampled teacher's probability of selection; next, base weights were adjusted for nonresponse and to ensure sample totals were comparable to frame totals. For this *Statistics in Brief*, the teacher weight, TFNLWGT, was used.

Two broad categories of error occur in estimates generated from surveys: sampling and nonsampling errors. Sampling errors occur when observations are based on samples rather than on entire populations. The standard error of a sample statistic is a measure of the variation as a result of sampling and indicates the precision of the statistic. The complex sampling design must be taken into account when calculating variance estimates such as standard errors. Estimates in this *Statistics in Brief* were generated in SAS 9.2 using the balanced repeated replication method to adjust variance estimation for complex sample designs.

Nonsampling errors can be attributed to several sources: incomplete information about all respondents (e.g., some teachers refused to participate, some teachers participated but answered only certain items); differences among respondents in question interpretation; inability or unwillingness to give correct information; mistakes in recording or coding data; and other errors of collecting, processing, and imputing missing data. For more information about sampling procedures, variance adjustments, and nonsampling error correction procedures, please visit <http://nces.ed.gov/surveys/sass>.

Statistical Procedures

Comparisons of means and proportions were tested using Student's *t* statistic. Differences between estimates were tested against the probability of a Type I error or significance level. The statistical

significance of each comparison was determined by calculating the Student's *t* value for the difference between each pair of means or proportions and comparing the *t* value with published tables of significance levels for two-tailed hypothesis testing. Student's *t* values were computed to test differences between independent estimates using the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}}$$

where E_1 and E_2 are the estimates to be compared and se_1 and se_2 are their corresponding standard errors.

No adjustments were made for multiple comparisons. It is important to note that many of the variables examined in this report may be related to one another and to other variables not included in the analyses. Complex relationships should be fully explored

and warrant further analysis. Readers are cautioned against drawing causal inferences based on the results presented.

Constructs and Variables Used in the Analysis

The variables used in this report were drawn from the 1999–2000 and 2011–12 SASS public school teacher data files and the 1999–2000 SASS public charter school teacher data file. Though data for charter school teachers are housed in a separate data file for 1999–2000, charter school teachers are included in the public school teachers data file for 2011–12. For additional detail on the variables, see the *User's Manual for the 2011–12 Schools and Staffing Survey Volume 6: Public and Private School Data Files*. Exhibit 1 provides a summary table of the variable label and variable name for measures used in this report by SASS administration.

EXHIBIT 1.

Variables used in this report, by data file variable construct: School years 1999–2000 and 2011–12

Construct	1999–2000	2011–12
Classroom autonomy	T0293, T0294, T0295, T0296, T0297, T0298	T0427, T0428, T0429, T0430, T0431, T0432
Final weight	TFNLWGT	TFNLWGT
Full- or part-time teaching assignment	T0051	T0025
Plans to remain in teaching	T0340	T0473
Replicate weights	TREPWT1 –TREPWT88	TREPWT1 –TREPWT88
Satisfied with teaching at this school	T0320	T0451
Worry about job security as a result of student performance	T0313	T0447
Would become a teacher again	T0339	T0472

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12 and Charter School Teacher Data File, 1999–2000.

Autonomy, Satisfaction, and Commitment

Autonomy. Autonomy indicates teachers' perceptions of classroom control as a scale of six variables asking teachers to rate how much control they have in their classrooms over each of the following areas: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. In 1999–2000, the scale was measured from 1 to 5, where 1 means “no control” and 5 means “complete control.” In 2011–12, the scale was measured from 1 to 4, where 1 means “no control,” 2 means “minor control,” 3 means “moderate control,” and 4 means “a great deal of control.” Responses for 1999–2000 were adjusted by a factor of 4/5 to create a 4-point scale. Prior to this adjustment, the average weighted autonomy in 1999–2000 was 4.0 with a standard error of 0.005 on a 5-point scale. Following the adjustment to a 4-point scale, the average weighted autonomy was 3.2 with a standard error of 0.004 on a 4-point scale. Responses equal to 4 reflect high autonomy, responses greater than or equal to 3 and less than 4 reflect moderate autonomy, and responses less than 3 reflect low autonomy.

General satisfaction. This measure is based on the statement, “I am generally satisfied with being a teacher

at this school.” It is measured on a scale from 1 to 4, where 1 means “strongly agree,” 2 means “somewhat agree,” 3 means “somewhat disagree,” and 4 means “strongly disagree.” The same question was used in both 1999–2000 and 2011–12. Responses of 1 or 2 reflect agreement. Responses were coded into two categories. The responses “strongly agree” and “somewhat agree” have been combined for estimates of “high satisfaction.” The responses “somewhat disagree” and “strongly disagree” have been combined for estimates of “low satisfaction.”

Worry about job security. This item is based on the statement, “I worry about the security of my job because of the performance of my students or my school on state and/or local tests.” The item is measured on a scale from 1 to 4, where 1 means “strongly agree,” 2 means “somewhat agree,” 3 means “somewhat disagree,” and 4 means “strongly disagree.” In 1999–2000, the phrase “or my school” was not included in the statement. Responses were coded into two categories. The responses “strongly agree” and “somewhat agree” have been combined for estimates of “worried about job security.” The responses “somewhat disagree” and “strongly disagree” have been combined for estimates of “not worried about job security.”

Commitment. There are two measures of teachers' perceived commitment to the teaching profession.

Commitment to teaching. This measure is based on the question, “If you could go back to your college days and start over again, would you become a teacher or not?” Responses were coded into two categories. Responses of 1 (“certainly would become a teacher”) and 2 (“probably would become a teacher”) were coded as “likely to become a teacher again.” Responses of 3 (“chances are about even for and against”), 4 (“probably would not become a teacher”), and 5 (“certainly would not become a teacher”) were coded as “unlikely to become a teacher again.”

Plans for teaching. This measure is based on the question, “How long do you plan to remain in teaching?” Response options changed between 1999–2000 and 2011–12. Response options included (1) “as long as I am able,” (2) “until I am eligible for retirement (from this job, another job, or social security),” (3) “will probably continue unless something better comes along or a more desirable job opportunity comes along,” (4) “definitely plan to leave teaching as soon as I can,” and (5) “undecided at this time.” In 2011–12, response options also included “until a specific life event occurs.” Responses were coded into two categories. Responses of “as long as I am able” and “until I am eligible for retirement” were coded as “plans to remain in teaching.” Responses of “plans to leave as soon as I can,” “when a better job opportunity comes along,” or “until as specific life event occurs” were coded as “plans to leave teaching.”

REFERENCES

- Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E., and Rothstein, J. (2012). Evaluating Teacher Evaluation. *Phi Delta Kappan*, 93(6), 8–15.
- Dworkin, A.G., and Tobe, P.F. (2014). The Effects of Standards Based School Accountability on Teacher Burnout and Trust Relationships: A Longitudinal Analysis. In *Trust and School Life* (pp. 121–143). Springer Netherlands.
- Freiberg, J. (2005). *School Climate: Measuring, Improving and Sustaining Healthy Learning Environments*. Philadelphia, PA: Routledge.
- Gawlik, M. (2007). Beyond the Charter Schoolhouse Door: Teacher-Perceived Autonomy. *Education and Urban Society*, 39(4): 524–553.
- Grissom, J.A., Nicholson-Crotty, S., and Harrington, J. (2014). Estimating the Effects of No Child Left Behind on Teachers' Work Environments and Job Attitudes. *Educational Evaluation and Policy Analysis* 36(4): 417–36.
- Guarino, C., Santibañez, L., and Daley, G. (2006). Teacher Recruitment and Retention: A Review of the Recent Empirical Literature. *Review of Educational Research*, 76(2): 173–208.
- Hanushek, E.A., and Rivkin, S.G. (2010). Generalizations About Using Value-Added Measures of Teacher Quality. *American Economic Review*, 100(2): 267–271.
- Hussar, W., and Bailey, T. (2017). *Projection of Education Statistics to 2025, Forty-Fourth Edition* (NCES 2017-019). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Ingersoll, R., and Alsalam, N. (1997). *Teacher Professionalization and Teacher Commitment: A Multilevel Analysis* (NCES 97-069). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Ingersoll, R., and May, H. (2012). The Magnitude, Destinations, and Determinants of Mathematics and Science Teacher Turnover. *Educational Evaluation and Policy Analysis*, 34(4): 435–464.
- Reback, R., Rockoff, J., and Schwartz, H.L. (2014). Under Pressure: Job Security, Resource Allocation, and Productivity in Schools Under No Child Left Behind. *American Economic Journal: Economic Policy*, 6(3): 207–241.
- Rosenberg, M.S., Sindelar, P.T., and Hardman, M.L. (2004). Preparing Highly Qualified Teachers for Students With Emotional or Behavioral Disorders: *The Impact of NCLB and IDEA*. *Behavioral Disorders*, 29(3): 266–278.
- Sparks, D., and Malkus, N. (2015). *Public School Teacher Autonomy in the Classroom Across School Years 2003–04, 2007–08, and 2011–12* (NCES 2015-089). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Suell, J.L., and Piotrowski, C. (2007). Alternative Teacher Education Programs: A Review of the Literature and Outcomes. *Journal of Instructional Psychology*, 34(1): 54–58.
- Sunderman, G.L., Tracey, C.A., Kim, J., and Orfield, G. (2004). *Listening to Teachers: Classroom Realities and No Child Left Behind*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Weiss, E. (1999). Perceived Workplace Conditions and First-Year Teachers' Morale, Career Choice Commitment, and Planned Retention: A Secondary Analysis. *Teaching and Teacher Education*, 15: 861–879.

APPENDIX A. DATA TABLES

Table A-1. Percentage distribution of public school teachers, by perceived level of autonomy, satisfaction with teaching, and commitment to teaching: School years 1999–2000 and 2011–12

Autonomy, satisfaction, and commitment	1999–2000	2011–12
Autonomy		
Low	31.4	27.0
Moderate	61.6	61.3
High	7.0	11.7
Satisfaction		
Satisfied with teaching at this school (4-point scale)		
Strongly disagree	2.9	3.3
Somewhat disagree	7.4	6.5
Somewhat agree	36.1	36.1
Strongly agree	53.5	54.0
Worry about job security as a result of student performance (4-point scale)		
Strongly disagree	40.8	27.7
Somewhat disagree	29.7	27.8
Somewhat agree	22.2	31.5
Strongly agree	7.2	12.9
Commitment to teaching		
Plans to remain in teaching		
Yes	73.8	75.8
No	13.0	9.4
Undecided	13.2	14.8
Would become a teacher again (5-point scale)		
Certainly	40.3	42.4
Probably	26.8	24.1
Chances about even	16.7	17.2
Probably would not	11.8	11.5
Certainly would not	4.4	4.7

NOTE: Detail may not sum to 100 because of rounding. Respondents were asked to indicate how much they disagree or agree with the following statements: “I am generally satisfied with being a teacher at this school” and “I worry about the security of my job because of the performance of my students or my school on state and/or local tests.” To measure commitment, respondents were asked, “How long do you plan to remain in teaching?” Response options changed between 1999–2000 and 2011–12, and in 2011–12, response options also included “until a specific life event occurs.” Responses of “plan to leave as soon as I can,” “when a better job opportunity comes along,” and “until a specific life event occurs” have been combined for estimates of “no.” The responses “as long as I am able” and “until I am eligible for retirement” have been combined for estimates of “yes.” Remaining teachers selected “undecided.” Respondents were asked, “If you could go back to your college days and start over again, would you become a teacher or not?” The autonomy scale indicates teachers’ rating of how much control they have in their classrooms over the following: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. Items are on a 4-point scale. “High” autonomy includes teachers who perceived “a great deal of control” for all six measures of classroom autonomy (average score of 4). “Moderate” autonomy includes teachers whose average response was lower than “a great deal of control” but equal to or greater than “moderate control” (average score from 3 up to 4). “Low” autonomy includes teachers whose average response was less than “moderate control” (average score less than 3). Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File. SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.

Table A-2. Percentage distribution of public school teachers, by perceived level of autonomy, satisfaction with teaching, and commitment to teaching: School years 1999–2000 and 2011–12

	1999–2000			2011–12		
	Low autonomy	Moderate autonomy	High autonomy	Low autonomy	Moderate autonomy	High autonomy
Satisfaction and commitment						
All public school teachers	31.4	61.6	7.0	27.0	61.3	11.7
Satisfaction						
Satisfied with teaching at this school						
High satisfaction	82.8	92.7	93.7	80.6	93.2	96.2
Low satisfaction	17.2	7.3	6.3	19.4	6.8	3.8
Worry about job security as a result of student performance						
Not worried about job security	58.9	75.1	82.7	43.4	57.9	71.2
Worried about job security	41.1	24.9	17.3	56.6	42.1	28.8
Commitment						
Plans to remain in teaching						
Yes	68.4	75.9	79.7	69.5	77.5	81.4
No	16.0	11.9	9.2	13.3	8.1	6.9
Undecided	15.6	12.2	11.1	17.2	14.4	11.7
Would become a teacher again						
Likely to become a teacher again	57.8	70.8	76.7	54.8	69.9	76.1
Unlikely to become a teacher again	42.2	29.2	23.3	45.2	30.1	23.9

NOTE: Respondents were asked to indicate how much they disagree or agree with the following statement: “I am generally satisfied with being a teacher at this school” and “I worry about the security of my job because of the performance of my students or my school on state and/or local tests.” Response options included: “strongly disagree” and “somewhat disagree” (coded to low satisfaction and worried about job security), “somewhat agree,” and “strongly agree” (coded to high satisfaction and not worried about job security). To measure commitment, respondents were asked, “If you could go back to your college days and start over again, would you become a teacher or not?” The responses “chances are about even for and against,” “probably would not become a teacher,” and “certainly would not become a teacher” have been combined for estimates of “unlikely to become a teacher again.” The responses “certainly would become a teacher” and “probably would become a teacher” have been combined for estimates of “likely to become a teacher again.” Respondents were asked, “How long do you plan to remain in teaching?” Response options changed between 1999–2000 and 2011–12, and in 2011–12, response options also included “until a specific life event occurs.” Responses of “plan to leave as soon as I can,” “when a better job opportunity comes along,” and “until a specific life event occurs” have been combined for estimates of “no.” The responses “as long as I am able” and “until I am eligible for retirement” have been combined for estimates of “yes.” Remaining teachers selected “undecided.” The autonomy scale indicates teachers’ rating of how much control they have in their classrooms over the following: (1) selecting textbooks and other instructional materials; (2) selecting content, topics, and skills to be taught; (3) selecting teaching techniques; (4) evaluating and grading students; (5) disciplining students; and (6) determining the amount of homework to be assigned. Items are on a 4-point scale. “High” autonomy includes teachers who perceived “a great deal of control” for all six measures of classroom autonomy (average score of 4). “Moderate” autonomy includes teachers whose average response was lower than “a great deal of control” but equal to or greater than “moderate control” (average score from 3 up to 4). “Low” autonomy includes teachers whose average response was less than “moderate control” (average score less than 3). Data for public charter school teachers are included in the 2011–12 Public School Teacher Data File.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.

APPENDIX B. STANDARD ERROR TABLES

Table B-1. Standard errors for table A-1: Percentage distribution of public school teachers, by perceived level of autonomy, satisfaction with teaching, and commitment to teaching: School years 1999–2000 and 2011–12

Autonomy, satisfaction, and commitment	1999–2000	2011–12
Autonomy		
Low	0.38	0.54
Moderate	0.37	0.54
High	0.15	0.34
Satisfaction		
Satisfied with teaching at this school (4-point scale)		
Strongly disagree	0.12	0.26
Somewhat disagree	0.21	0.25
Somewhat agree	0.43	0.52
Strongly agree	0.51	0.54
Worry about job security as a result of student performance (4-point scale)		
Strongly disagree	0.42	0.48
Somewhat disagree	0.33	0.46
Somewhat agree	0.36	0.54
Strongly agree	0.20	0.39
Commitment		
Plans to remain in teaching		
Yes	0.29	0.49
No	0.22	0.35
Undecided	0.25	0.43
Would become a teacher again (5-point scale)		
Certainly	0.35	0.65
Probably	0.32	0.45
Chances about even	0.23	0.45
Probably would not	0.21	0.38
Certainly would not	0.17	0.22

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12 and Charter School Teacher Data File, 1999–2000.

Table B-2. Standard errors for table A-2: Percentage distribution of public school teachers, by perceived level of autonomy, satisfaction with teaching, and commitment to teaching: School years 1999–2000 and 2011–12

	1999–2000			2011–12		
	Low autonomy	Moderate autonomy	High autonomy	Low autonomy	Moderate autonomy	High autonomy
Satisfaction and commitment						
All public school teachers	0.38	0.37	0.15	0.54	0.54	0.34
Satisfaction						
Satisfied with teaching at this school						
High satisfaction	0.51	0.27	0.68	0.93	0.29	0.66
Low satisfaction	0.51	0.27	0.68	0.93	0.29	0.66
Worry about job security as a result of student performance						
Not worried about job security	0.66	0.45	1.01	1.26	0.76	1.45
Worried about job security	0.66	0.45	1.01	1.26	0.76	1.45
Commitment						
Plans to remain in teaching						
Yes	0.60	0.37	1.07	0.97	0.61	1.13
No	0.51	0.28	0.87	0.86	0.50	0.74
Undecided	0.45	0.25	0.69	0.75	0.43	1.00
Would become a teacher again						
Likely to become a teacher again	0.69	0.41	0.97	1.16	0.65	1.17
Unlikely to become a teacher again	0.69	0.41	0.97	1.16	0.65	1.17

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, Public School Teacher Data Files, 1999–2000 and 2011–12, and Charter School Teacher Data File, 1999–2000.