



The Rise and Fall of the Teaching Profession: Prestige, Interest, Preparation, and Satisfaction over the Last Half Century

Matthew A. Kraft
Brown University

Melissa Arnold Lyon
University at Albany

We examine the state of the U.S. K-12 teaching profession over the last half century by compiling nationally representative time-series data on four interrelated constructs: occupational prestige, interest among students, the number of individuals preparing for entry, and on-the-job satisfaction. We find a consistent and dynamic pattern across every measure: a rapid decline in the 1970s, a swift rise in the 1980s extending into the mid 1990s, relative stability, and then a sustained decline beginning around 2010. The current state of the teaching profession is at or near its lowest levels in 50 years. We identify and explore a range of hypotheses that might explain these historical patterns including economic and sociopolitical factors, education policies, and school environments.

VERSION: April 2024

Suggested citation: Kraft, Matthew A., and Melissa Arnold Lyon. (2024). The Rise and Fall of the Teaching Profession: Prestige, Interest, Preparation, and Satisfaction over the Last Half Century. (EdWorkingPaper: 22-679). Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/7bla-vk92>

**The Rise and Fall of the Teaching Profession:
Prestige, Interest, Preparation, and Satisfaction over the Last Half Century**

Matthew A. Kraft
Brown University

Melissa Arnold Lyon
University at Albany

April 2024

Abstract

We examine the state of the U.S. K-12 teaching profession over the last half century by compiling nationally representative time-series data on four interrelated constructs: occupational prestige, interest among students, the number of individuals preparing for entry, and on-the-job satisfaction. We find a consistent and dynamic pattern across every measure: a rapid decline in the 1970s, a swift rise in the 1980s extending into the mid 1990s, relative stability, and then a sustained decline beginning around 2010. The current state of the teaching profession is at or near its lowest levels in 50 years. We identify and explore a range of hypotheses that might explain these historical patterns including economic and sociopolitical factors, education policies, and school environments.

JEL: I20, J21, J45

Correspondence regarding the manuscript can be sent to Matthew Kraft; mkraft@brown.edu, Brown University P.O. Box 1938, Providence RI, 02192. We are grateful to Sam Lynch, Stephanie Tu, Eunice Chong, Alex Cooper-Hohn, Jacquelyn Benjes, Tiffany Kuo, Hyesang Noh, and Justin Lee who provided excellent research assistance and to Danielle Edwards, Jeffery Henig, Susan Moore Johnson, Virginia Lovison, Richard Murnane, Emily Qazilbash, Patricia Saenz-Armstrong and Jack Schneider who provided helpful feedback on earlier drafts of the paper.

Introduction

Few other occupations in the U.S. are as large or as important as the teaching profession. Today, over 5.4 million Americans teach in K-12 schools – 8% of the college-educated labor force. Teachers have profound impacts on students’ academic, socio-emotional, and life outcomes (Chetty, Friedman, & Rockoff, 2014; Jackson, 2018; Kraft, 2019). Teachers also collectively shape the democratic ideals, social cohesion, and economic competitiveness of the nation as a whole. But despite the central role teachers play in our society, they have long struggled to gain and maintain the status of a prestigious profession.

Lortie’s (1975) characterization of teaching as a “semi-profession” remains as relevant now as it was a half century ago. Teachers are at once heroes and villains, saints and scapegoats. Throughout the history of the common school in the U.S., reforms have repeatedly characterized teachers as both the problem and solution to the perceived shortcomings of public education (Pawlewicz, 2020). As Sykes (1983) described over four decades ago, “Our social history reveals attitudes persistently equivocal towards teachers and a set of decidedly mixed messages about the status and value of this occupation” (p.98). This tension has led to repeated efforts to raise instructional quality by controlling teacher practices with top-down management and standardization, diminishing teachers’ autonomy and disregarding their expertise (Mehta, 2013).

The size, history, and nature of the teaching profession create a uniquely challenging context for elevating it to the status of more prestigious careers such as doctors, the often-cited aspirational goal. The sheer number of teachers limits the ability of most educator preparation programs and schools to be highly selective about whom they admit and employ. Every year K-12 schools seek to fill over 200,000 vacant positions. Due, in part, to the immense size of this largely public sector workforce, free-market advocates have long sought to undercut the power

of teacher unions and privatize public education (Brown, 1995). The historical feminization of the profession and its service to children further embattle it (Murphy, 1990). And unlike most other professions, the public has had ample exposure to what teachers do. Their knowledge is not perceived as exclusive despite the “irreducible complexity” of teachers’ work (Labaree, 2000).

However, it would be a mistake to assume that the teaching profession has held a relatively static position in the public’s eyes or the labor market. The state of the teaching profession has changed dynamically over time in response to a host of influences including macro-economic trends, shifting political narratives, changing cultural perspectives, evolving labor movements, and persistent policy reform efforts. Americans’ ever-changing views about teachers were most recently laid bare by the Covid-19 pandemic. Faced with the challenge of homeschooling their children, the initial weeks of the pandemic saw an outpouring of appreciation from parents about the difficult work teachers do. This newfound respect quickly waned as teachers’ unions began to be viewed as the culprits of prolonged school closures (Will, 2020). Growing dissatisfaction, burnout, and turnover among teachers in the wake of the pandemic (Diliberti & Schwartz, 2022; Barnum, 2023) and new state laws restricting discourse on racism and sexuality in schools (Woo et al., 2022) have also set ablaze a long smoldering question: Who among the next generation of college graduates will choose to teach?

In this paper, we examine how the state of the K-12 teaching profession has evolved in the U.S. over the last half century. The 1970s serve as a natural inflection point for studying the modern teaching profession and education system. Local control and funding had given way to the district consolidation movement with states beginning to play an expanded role in funding public education and regulating its practices (Kirst, 1995). The passage of the Elementary and Secondary Education Act in 1965 marked the beginning of a more assertive role for the federal

government (Gamson, 2009). The teaching profession was also undergoing a major transition at this time with the rise of industrial-style unionism, changing demographics due to the women's and civil rights movements, and the implementation of court-ordered school desegregation plans.

Our aims are twofold. First, we aim to better understand the current state of the teaching profession in this emerging post-pandemic era by placing it in historical context. We conceptualize the state of the teaching profession as a broad characterization of the overall health and wellbeing of the teaching profession as experienced by educators and perceived by society as a whole. We seek to answer the question: How does the current state of the K-12 teaching profession compare to prior periods over the last 50 years? Our second aim is to identify and explore potential hypotheses to explain the macro-level changes we observe in the state of the teaching profession over time. We ask: What economic and sociopolitical factors, education policies, and school working conditions might have contributed to the changes we observe over time?

We accomplish our first aim by compiling and analyzing time-series data spanning multiple decades that collectively serve as a barometer of the state of the K-12 teaching profession. Our primary analyses focus on four interrelated constructs: public perceptions of occupational prestige, expressed interest among high school seniors and college freshman, the number of students preparing to enter the teaching profession by completing education degrees and earning licensures, and on-the-job satisfaction among teachers. Although public prestige is intrinsic to professionalism, our purpose is distinct from prior studies that seek to characterize the (de)professionalization of the teaching profession (Ingersoll & Collins, 2018).

We conceptualize the state of the teaching profession as a set of overlapping constructs that represent mutually reinforcing stages in the generational cycle of the teaching career as

shown in Figure 1. Public perceptions of the teaching profession inform students' career interests. Students then decide whether to pursue formal preparation for entry into the profession, and if so, ultimately experience teachings' rewards and challenges on the job. The cycle comes full circle as millions of educators share their teaching experiences with their families and friends, shaping broader perceptions and influencing the next generation's career choices given the strong intergenerational transmission of teaching careers (Jacinto & Gershenson, 2021).

We draw on broad, diagnostic indicators from repeated survey measures, primarily from large-scale nationally representative samples and population-level data, from more than a dozen distinct sources to measure our four constructs. We focus on national patterns, while recognizing that these trends average across meaningful variation that exists in the teacher labor market at the local, state, and regional levels and across grade levels and subject areas (e.g., Edwards et al., in press). Together, our data provide a macro-level overview and serve as an important complement to studies that examine patterns and explore heterogeneity at the more micro-level (e.g., Bacolod, 2007; Lankford et al., 2014; Corcoran, 2007; Master, Sun & Loeb, 2018; Goldhaber & Theobald, 2022; Goldhaber & Walch, 2013).

The time-series figures we present on the state of the teaching profession reveal dynamic and surprisingly consistent patterns across all four constructs. We find compelling evidence of three major periods of change in the status of the teaching profession across the last half century. Prestige, interest, preparation, and satisfaction declined rapidly in the 1970s, rose swiftly starting in the early to mid 1980s through the mid 1990s, remained somewhat steady for the next 15 years, and then began declining precipitously around 2010.

Across every single indicator we measure, our findings show that the overall wellbeing of the teaching profession today is at or near historically low levels. Perceptions of teacher prestige

have fallen between 20% and 47% in the last decade to be at the lowest levels recorded over the last half century. Interest in the teaching profession among high school seniors and college freshman has fallen 48% since the 1990s, and 40% since 2010, reaching the lowest level in the last 50 years. The number of prospective teachers earning a teaching license each year fell by over 100,000 between 2006 and 2021, and the proportion of college graduates that go into teaching is at a 50-year low. Teachers' job satisfaction reached the lowest level in five decades in 2022, declining by 26% in the past 10 years alone. Although recent attention has focused on how the pandemic has made teachers' work substantially more challenging, most of these declines occurred steadily throughout the last decade suggesting they are a function of larger, structural issues. In our view, these findings should be cause for serious national concern.

Our second aim is to move beyond broad diagnostics by exploring possible causes for the changes we find in the overall state of the profession. As shown in Figure 1, we identify and examine nine primary hypotheses related to economic and sociopolitical factors, education policies, and school environments that emerge from the scholarly literature and public narrative. We explore these hypotheses by synthesizing the relevant literature and compiling additional sources of time-series data. While these analyses of national trends cannot identify cause and effect or isolate individual factors from their historical contexts, they do provide direction for future research and policy innovation.

Our exploratory analyses point to several, concordant explanations for the patterns we find. Early declines in the state of the teaching profession in the 1970s and early 1980s may be related to the opening of labor market opportunities for women and people of color, a declining public student population in the post baby-boom era, and rapid inflation that reduced real wages and led to large-scale teacher layoffs. The swift recovery during the 1980s and into the 1990s

appears to be related to growing demand for teachers due to rebounding levels of student enrollment and increasing in real wages.

Explanations for the more recent decline in the state of the teaching profession appear multifaceted. The Great Recession cause a rapid decline in education funding leading to both large-scale teacher layoffs and a substantial contraction in the teacher labor market. However, these factors cannot fully explain the sustained declined. Stagnant teacher wages, the rising cost of college, limits to teacher autonomy, the perceived loss of job security due to accountability reforms, and the decreasing influence of unions may have all been salient factors that have influenced trends across the 2010's. In recent years, the Covid-19 pandemic has further exacerbated the challenges of recruiting and retaining educators in public schools in recent years.

Our paper makes several contributions to the literature. First, we establish a set of empirical facts about broad trends in occupational prestige, student interest, preparation for entry, and on-the-job satisfaction in the teaching profession over the last 50 years. Our research extends prior work that examines state-specific or national trends in the teaching profession over shorter time spans, typically examining one construct in isolation (Bacolod, 2007; Bartanen & Kwok, 2022; Lankford et al., 2014; Corcoran, 2007; Master, Sun & Loeb, 2018; Corcoran, Evans, and Schwab, 2004; Goldhaber & Theobald, 2022; Partelow, 2019, Goldhaber & Walch, 2013). In addition to the range of more widely known data sources we compile, we also present original evidence from survey items we commissioned and more novel datasets that have not been previously used to track the teaching profession over time. The juxtaposition of these multiple measures helps to illuminate the stark and consistent patterns that we find in the data. These common patterns are indicative of mutually reinforcing relationships and suggest that policy efforts focused on a single aspect of the teaching profession (e.g., satisfaction)

independent of other constructs are unlikely to result in comprehensive and sustained improvements to the state of the teaching profession.

Second, we contribute to a long tradition of academic research spanning several disciplines that has attempted to understand the ever-evolving state of the teaching profession and the historical, sociopolitical, cultural, and economic forces that have shaped it in the U.S. (Aldeman, 2022; Drury & Baer, 2011; Pawlewicz, 2020; Goldhaber & Hannaway, 2009; Murnane et al., 2009; Mehta, 2013; Goldstein, 2014; Johnson, 2004; Lortie, 1975; Sykes, 1983; Sedlack & Schlossman, 1986). We extend these studies by examining multiple facets of the status of the teaching profession simultaneously and highlighting new findings during the most recent decade. Indeed, the last dozen years have proven to be a critical period for the profession, with steeply falling prestige and new labor supply. While this decline is of considerable concern, the historical perspective our study affords reveals that reversing these trends is possible and, in fact, has been accomplished before. Ultimately, we hope to shine a light on possible paths forward for elevating the state of the teaching profession.

Conceptual Framework

Our analyses are grounded in a conceptual model of the state of the teaching profession as a generational cycle of the teaching career. We focus on four central measures of the state of the teaching profession, from broad public perceptions to actual teachers' experiences inside the classroom. While each of these measures is important in its own right, analyzing them together allows us to illuminate how they work together to collectively serve as a well-calibrated barometer of the overall state of the profession.

Occupational Prestige

We view occupational prestige as an important and relatively understudied construct for framing the past, present, and future of the teacher workforce. Prestige can be understood to simply mean the respect and social standing that a profession holds in society. Sociologists have long been interested in occupational prestige as a lens for understanding social stratification (Blau & Duncan, 1967; Siegel, 1971). Scholars quantify this construct via surveys that ask respondents to either rank a list of occupations based on their prestige or rate them using a Likert-type scale (Warren et al., 1998).

Prestige is sometimes used interchangeably with the terms professionalism and professionalization. High-prestige occupations typically enjoy the public respect and influence that is associated with professionalization. Professionalization, however, is a broader construct that is characterized by: 1) advanced degrees, 2) a well-developed knowledge base, 3) restrictions on entry into the profession, 4) common norms and standards of practice, 5) a large degree of autonomy over one's work, and 6) relatively high compensation (Ingersoll & Collins, 2018; Mehta, 2013). Ingersoll and Collins (2018) find that although schools share some characteristics of professionalized workplaces, teachers' work falls short on many characteristics that are associated with professionalization. They also document that teachers in public schools have a greater degree of professionalization than teachers in private schools (e.g., higher salaries, licensure rates, and professional support). Prestige is thus informative for understanding the degree of professionalization of an occupation, but it is best viewed as a measure of external perceptions rather than a direct measure of the degree of authority, expertise, and autonomy that an occupation enjoys or the institutional infrastructure that regulates membership into the profession (Freidson, 2001; Weeden, 2002).

Student Interest in Becoming a Teacher

Career interests and aspirations often form early in students' academic careers. While these intentions are strong predictors of students' actual career paths, they are also important measures on their own, reflecting the early impressions students have about the desirability of different jobs. Formal decisions to prepare for a career in teaching can happen as early as the senior year of high school when students decide if they will attend a college that offers a teacher preparation program. More than half of all public-school teachers earn their public school teaching credentials as part of a four-year B.A. major in education. Additionally, student interest in teaching serves as a signal of the appeal of the teaching profession for the future workforce. Thus, we focus on student interest in teaching as both an early indicator of new teacher supply as well as a measure of the general attractiveness of the profession.

Very recent work has examined changes over time in young Americans' interest in the teaching profession and raised concerns about the declining popularity of education as a career. A Bellwether whitepaper documents broad patterns in interest in the teaching profession among college freshman from 1970 to 2018 using a dataset we describe and analyze in more detail below (McVey & Trinidad, 2019). Bartanen and Kwok (2022) leverage survey data from applicants to a large public university in Texas to explore students' interest in becoming a teacher. They find sharply declining rates of interest in entering a teacher credential program among high school students applying to college between 2009 and 2020.

The Number of Individuals Preparing to Become Teachers

Having a sufficient supply of qualified teachers to staff every classroom has long been a national concern. Fears of teacher shortages have ebbed and flowed throughout the last century with early peaks during World War I and II (Pawlewicz, 2021). Though the exact requirements vary by state and have changed over time, public school teachers in the U.S. typically complete a

certification program, pass required exams, and obtain a state-issued teaching license. Most teachers follow a “traditional” certification pathway that includes teaching-specific coursework at the bachelor’s or master’s level. Here, we focus on the individuals preparing to enter the profession separate from the number of new entrants demanded in the labor market. However, even this number is not a direct measure of new teacher supply. Research has shown that only three out of every four teachers who earn a teaching credential end up employed as public school teachers (Goldhaber et al., 2022). We view the quantity of prospective teachers completing preparation programs and earning licenses as a ceiling for the number of possible new entrants.

Data on teacher preparation inform at least three specific aspects of the state of the teaching profession. First, the number of individuals preparing to enter the profession is a leading indicator of the overall attractiveness of the profession. Second, with fewer individuals preparing to enter the profession, schools will have fewer candidates to select amongst, on average, which could diminish the returns to selection and the quality of teacher-school matches (James et al., 2023). Third, a declining supply of potential teachers has direct implications for the ability of schools to fill vacant teaching positions. Although the U.S. has produced more teacher education graduates than demanded in the labor market historically (Cowen et al., 2016), any decline in supply is likely to increase shortages given persistent misalignment between localized teacher demand and job candidates’ preferences across school locations, working conditions, grade levels, and subject areas (Edwards et al., in press).

Most research that examines trends in teacher preparation focuses on recent enrollment declines in teacher preparation programs. Sutchter, Darling-Hammond, and Carver-Thomas (2016) model and project trends in teacher supply and demand between 2005 and 2025 using data from the Office of Title II, the Common Core of Data, and the Schools and Staffing Survey.

They warn of an impending teacher shortage crisis due to a gradual decline and then plateau in new teacher supply and steadily rising demand for teachers. Studies using data from Title II and the Integrated Postsecondary Education Data System find declines in teacher preparation program enrollment overall as well as for special education teachers (Goldhaber & Holden, 2021; Harper et al., 2022; Partelow, 2019). Taken together, this work highlights concerning evidence of a recent decline in individuals preparing to become teachers.

Job Satisfaction

Job satisfaction is a broad construct that captures teachers' overall experiences in the profession and the degree to which they find it rewarding and enjoyable. We include this measure as a summary statistic that reflects teachers' experiences with the structure and context of their work. A large body of research has examined teachers' satisfaction with their work, illustrating how teacher satisfaction is likely shaped by a range of factors including the degree of respect they receive in society, the salaries they earn, the autonomy they enjoy, and the conditions in which they work (Banerjee et al, 2017; Grissom, 2011; Lopes & Oliveira, 2020), all of which we explore in more depth in the second half of the paper. Job satisfaction also likely shapes important outcomes, including teacher transfer and quit rates (Madigan & Kim, 2021).

Two studies have explored trends in teachers' job satisfaction over time. Master, Sun, and Loeb (2018) use the nationally representative 2000 and 2008 Baccalaureate and Beyond surveys to show that teachers' job satisfaction fell during this time period, but to a slightly lesser degree than that of recent college graduates who entered other professions. Grissom, Nicholson-Crotty, and Harrington (2014) examine trends in teacher satisfaction across four nationally representative waves of the Schools and Staffing Survey (1994-2008). They find a pattern of

increasing teacher satisfaction overall, with little evidence that the school accountability reforms imposed by the No Child Left Behind (NCLB) Act affected teachers' satisfaction.

Methods

Data and Measures

We draw upon more than a dozen large and often nationally representative datasets that include measures of the status of the teaching profession across multiple decades. We summarize key features of these datasets in Table 1. In Table 2 and the sections below, we briefly describe each of the measures we construct from these sources. We provide additional details about our data sources and measures in online Appendix Table A1 and Appendix B.

Occupational Prestige

We use two primary measures of public perceptions regarding the occupational prestige of teachers. First, we use data from the nationally representative Harris Poll to estimate the percent of survey respondents that said that teachers have either very great or considerable prestige. As a second measure of teachers' occupational prestige, we use the percent of parents that report in Phi Delta Kappan's (PDK's) nationally representative polls that they would like their child to take up teaching in the public schools as a career.

Student Interest in Becoming a Teacher

We construct three measures of student interest in teaching. First, we use the percent of first-year college students that choose elementary or secondary school teacher as their probable career from the Cooperative Institutional Research Program (CIRP) The Freshman Survey, which is administered to between 200,000 and 415,000 respondents per year. We also use the percent of high school seniors that view working in a school or university as desirable from the nationally representative Monitoring The Future (MTF) study. Finally, we draw on nationally

representative data from National Center for Education Statistics (NCES) surveys of high school seniors to construct a measure of the percent of students reporting that they expect to be a “school teacher, such as elementary or secondary,” as our third measure of student interest in teaching.

The Number of Individuals Preparing to Become Teachers

We measure preparation for the teaching profession with four measures based on data from the Integrated Postsecondary Education Data System (IPEDS) and its predecessor, the Higher Education General Information Survey (HEGIS), as well as the Office of Title II in the U.S. Department of Education. These are federally run data repositories with universal data on degrees and teacher licenses. As indicated in Table 2, we employ two measures from HEGIS and IPEDS: one is a straightforward count of individuals who have obtained bachelor's or master's degrees in the field of education, and the other is a calculation of the percentage of all bachelor's and master's degree recipients who earned degrees in education. We also use Title II data to measure the total number of public school teaching licenses awarded and a parallel measure of the percent of bachelor's degree completers in each year that earn a teaching license as a second set of measures of teacher preparation.

Job Satisfaction

Given the lack of any single, consistent, and comprehensive measure of teacher satisfaction, we compile 13 measures across five different sources: the National Education Association's (NEA) Status of the American School Teacher, Survey of the American Teacher, Schools and Staffing Survey (SASS)/National Teacher and Principal Survey (NTPS), RAND's American Teacher Panel (ATP), and a survey commissioned by the American Federation of Teachers (AFT). We begin with a measure of the percent of teachers who report that they

certainly or probably would choose to teach if they had to make the choice again from the NEA’s Status of the American School Teacher, which is the only source for satisfaction data during the 1970s. Second, we use a measure of the percent of teachers that report being very satisfied with teaching from the Survey of the American Teacher.¹ The question wording changed slightly over time, so we plot trends in the response patterns for the two question stems separately.²

We also examine trends in job satisfaction across six items from the nationally representative SASS/NTPS. We use the percent who strongly agree that they are generally satisfied with being a teacher;³ the percent who somewhat or strongly agree that teachers in their school are generally satisfied; and the percent that probably or certainly would teach again if they could start over again. We also plot the percent who somewhat or strongly disagree that (1) stress and disappointments of teaching aren’t worth it, (2) they would leave teaching for a higher paying job, and (3) they don’t have as much as enthusiasm for teaching as they used to. RAND’s nationally representative ATP asked two identical questions about stress and disappointments and teacher enthusiasm, which we also plot to extend the time series to 2023. Finally, we use the percent of teachers that are very satisfied with their overall conditions from AFT surveys to contextualize change during some of the more recent years that are missing for other measures.⁴

Time-Series Analyses on the State of the Teaching Profession

¹ We used aggregate data from published reports, and for some years this is the only response category reported.

² In 1985, 1988, 1995, 2003, 2006, 2008-9, they asked “All in all, how satisfied would you say you are with teaching as a career?” In 1984, 1986-7, 2001, and 2011-12, they asked, “All in all, how satisfied would you say you are with your job as a teacher in the public schools?” Then, in 2022 and 2023, EdWeek commissioned Merrimack College to conduct a survey of public school teachers which included an abbreviated version of this job-focused question, “All in all, how satisfied are you with your job?” The answer choices remained consistent over time with a four-point Likert scale ranging from “very satisfied” to “very dissatisfied.”

³ We do this to be consistent with general satisfaction measures from the Survey of the American Teacher and AFT.

⁴ As indicated in Table A1, the response scale for this question was modified slightly over time but always included “very satisfied.” We therefore rely on just the percent that respond “very satisfied.”

We conduct simple descriptive analyses using the data described above by presenting national-level time series with a uniform time range across all figures (1970-2023) to facilitate a common visual comparison. We apply appropriate weights whenever provided to generate nationally representative estimates. We connect data points using line segments but emphasize that it is unlikely this linear representation captures the true dynamic patterns between time points that are farther apart in years.⁵

Exploratory Analysis of Factors that Might Relate to the State of the Teaching Profession

We explore a range of hypothesized factors that might have contributed to the dynamic patterns in the state of the K-12 teaching profession over the last half century. We do so by drawing on the scholarly literature to identify and substantiate nine hypotheses. Given the large number of possible explanations, we recognize that this list is far from comprehensive. We then present additional time-series data to further examine how these potential driving factors have changed over time in relationship to the state of the teaching profession (see online Appendix Table A2 for a summary of the measures and online Appendix C for detailed descriptions of these data sources).

The complex economic, social, and political forces that interact to shape that state of the teaching profession make this exploratory exercise extremely challenging. Common patterns (or a lack thereof) between a hypothesized factor and our measures might suggest that a relationship exists, but identifying cause and effect in this setting is infeasible given the many concurrent forces acting on the teaching profession, their interrelated nature, and the lack of any counterfactual for the national trends we observe. We recognize that relationships might reflect

⁵ We omit confidence intervals given that much of the data we employ come from briefs that do not report associated standard errors. Given sample sizes of at least 1,000 individuals and often many more, the means we plot across our time series figures are likely estimated with considerable precision.

reverse causality, simultaneous causality, or they may even be spurious. They might also appear with a considerable lag or appear negatively related if policy follows a countercyclical pattern. Thus, our analyses are intended to inform more in-depth studies and policy experimentation with leading hypotheses, relevant data sources, and descriptive trends.

Findings

Occupational Prestige

Perceptions of prestige have fluctuated considerably over the past half century, illustrating the dynamic ways in which teachers' occupational status can change over time. We find a common pattern where prestige declined precipitously in the 1970s into the early 1980s, reversed and rose steadily in the 1980s into the 1990s, and remained relatively constant until it began a second prolonged decline in the 2010s. These patterns are clear in Figure 2, which presents data from two sources: the Harris Poll and PDK. The Harris Poll captures traditional measures of occupational prestige commonly used in the sociological literature while PDK reflects public sentiment about teaching as a career for one's own children.

Two-thirds of respondents to the nationally representative Harris Poll surveys ranked teaching as having at least "considerable prestige" in 1977, but by 1981, this had dropped to just 54%. From there, teacher prestige increased steadily, peaking at 79% in 1998, and then remained relatively high until 2010 when it began to fall more dramatically, reaching 58% in 2022. The PDK survey results follow a remarkably similar trend with three-quarters of parents wanting their child to become a teacher in 1969. This figure then fell to just 46% by 1983. By 1993, parents' desire for their children to teach had increased again to above 65%, where it remained until 2011, but then declined to its lowest recorded levels with just 37% of parents wanting their

child to become a teacher in 2022. Strikingly, between 2009 and 2022, the percentage of parents who saw teaching as a favorable career for their children fell by half.

Student Interest in Becoming a Teacher

Adolescents begin to refine their specific career interests and aspirations in secondary school and college. These ideas are likely shaped by both broader public perceptions of the teaching profession as well as their own interests, opportunities, and family and peer influences. We draw on data from CIRP, MTF, and NCES to track interest in entering the teaching profession among high school seniors and college freshman. Across all three datasets shown in Figure 3, we see a distinctly similar pattern of the decline, rise, and then fall of interest in teaching over the last half century.

The CIRP is the longest-running and most frequently collected survey of student interest in teaching. As shown in Figure 3 Panel A, trends from CIRP data reveal a precipitous drop in interest from over 22% of college freshman in the early 1970s to only 5% in 1982. We then see a steady rise in the following decade up to 10%, a plateau across the 1990s and 2000s and decline to the lowest levels on record by 2013. Likewise, the time-series trends from the MTF data show that roughly 18% of high school seniors expressed interest in working in a school or university in 1976. Students' level of interest dropped as low as 11% in the early 1980s and then rose to 19% again in the 1990s. The MTF survey then shows a steady decline since the peak in 1994 down to 11% in 2020 and 2021. We again see this familiar pattern based on nationally representative datasets collected by NCES. These survey data suggest that 7% of high school seniors expected to be teaching at age 30 in 1970, which declined to less than 3% in 1982 and rose again to almost 7% in 1992, only to fall to around 3% again in the mid-2000s where it has remained.

The Number of Individuals Preparing to Become Teachers

Federally collected data tracking the number of students preparing to become teachers also provides a window into the attractiveness of the teaching profession. We present raw counts of the total number of education degree completers and public school teaching licensures awarded in Panel A and Panel C of Figure 4, respectively. Panel B and Panel D display the percent of college completers who earn degrees in the field of education or earn licenses to illustrate their relative popularity among all college graduates over time.

Overall patterns in the raw counts of education degree completers and licenses issued map onto those for prestige and interest. As shown in Figure 4, we observe a decline, rise, plateau, and fall in education degree completers. Here the decline starts in the mid-1970s and continues through the mid-1980s followed by a steadier and prolonged rise through the 1990s and plateauing in the mid-2000s. Patterns in the percentage of college completers who are preparing for teaching are even starker. In the early 1970s, roughly one out of every four college graduates completed an education degree, but this fell to just 12% by 1987, where it remained through the 1990s and most of the 2000s. This number then began to fall gradually at first and then rapidly in the 2010s. By 2020, only 8.1% of B.A. and M.A. degree completers were education majors, a third of the rate from earlier decades. Data from 2021 suggest that trends could be reversing, with very slight upticks in the number and percent of degree completers majoring in education.

Trends in the number of state-issued teaching licenses to teach in public schools show similar overall declines. The total number of licensures issued rose to 320,000 in 2006 and has fallen steadily since, dropping to only 215,000 in 2021, roughly one third less than 2006 levels. Further, at its high in 2006, the number of licenses issued was 22% of the total number of college graduates. In 2021, that number was only 10.4% of the total number of college graduates.

Job Satisfaction

The majority of students who prepare for a career in teaching end up as classroom teachers and experience the rewards and challenges of the career firsthand. While no single measure provides a complete time-series of teachers' satisfaction over the last half century, we can see clear changes over time in teachers' experiences by looking across multiple datasets in Figure 5. Together, these data reveal a pattern very similar to those shown in our previous figures. The NEA survey provides the earliest and longest-running data on teacher satisfaction and shows the familiar, sharp decline in the 1970s followed by a steep rise in the 1980s and a more modest rise from 1991 until 2006. The percent of teachers who indicate they would “probably” or “certainly” choose teaching as a career declined from 74% in 1971 to 46% in 1981, but then recovered to 66% in 2006. The Survey of the American Teacher starting in 1984 similarly shows a moderate rise in the percent of teachers that are very satisfied with their careers through 2008, reaching a high of 62% in 2008. The highest reported level for job satisfaction is in 2001, with 52% reporting they are very satisfied. Strong satisfaction then falls precipitously starting in 2011 to a new low of 12% in 2022, although there is a large gap in the time-series in the 2010s. The most recent survey shows an encouraging albeit modest increase to 20% in 2023.

The SASS/NTPS, RAND's ATP, and AFT datasets serve to fill in the details about changes in teacher satisfaction over the most recent several decades. Analysis of the nationally representative and oft-cited SASS/NTPS data suggests that, across six different measures of job satisfaction, teachers' job satisfaction has declined steadily since 2008, with some potential recovery in the 2021 surveys for the percent of teachers that say the stress is worth it and that teachers in their school are a satisfied group. RAND's ATP consistently asked two of the SASS/NTPS questions about stress and enthusiasm, showing consistent declines between 2020-

2022 followed by a slight uptick in 2023, though satisfaction is still below 2021 levels. The AFT survey shows a noisy but clear pattern of eroding teacher satisfaction since 2008. Similar to the MET and SASS/NTPS/ATP survey, 2022 represents the lowest levels of satisfaction across the 30-year panel of data collected by the AFT.

Exploring Possible Explanations

Economic Hypothesis #1: Changing Labor Market Opportunities Affected Interest, Preparation, and Prestige

Prior research provides evidence that expanding career opportunities for women and people of color has affected interest in and preparation for teaching. Starting in the 1960s and 1970s, the civil rights and women's rights movements helped to open access to a range of higher-paying professional occupations that were previously only or primarily accessible to White men (e.g., medical doctors, professors, attorneys). Studies have documented how the relative number of high-achieving women and people of color among the ranks of public school teachers declined substantially in the 1970s as outside employment options changed (Bacolod, 2007; Corcoran et al., 2004; Eide et al., 2004; Hoxby & Leigh, 2004; Murnane et al., 2009).

During this same period, Black teachers in southern states were also fired, dismissed, and demoted in mass as districts began closing segregated Black schools after the passage of the 1964 Civil Rights Act (Thompson, 2022). As Fenwick (2022) documents, Black southern educators were often replaced by White teachers with less experienced and fewer academic credentials. The displacement of an entire generation of Black educators from Southern schools likely had enduring effects on how Black students perceived teaching as a potential career path.

We explore these pull and push factors further by disaggregating interest in the teaching profession from the CIRP surveys of college freshmen by gender and by the intersection of race

and gender in Figure 6.⁶ Panels A and B illustrate absolute changes in interest in the teaching profession among college freshman over time. Panels C and D illustrate this same data as relative changes over time for each subgroups. In Panels A and C, we find that in 1970, women were three times more likely to expect a career in teaching than men. We find sharp declines in students' interest in teaching in the 1970s that occurred relatively equally for both men and women. Gender differences emerge in 1990s as interest among men continued to rebound while interest among women remained flat. Recent declines in interest among female students in the 2010's have led to very similar expectations of teaching for women and men (5% vs. 3%).

When we examine these patterns by race and gender (Panels B and D), we find that interest in teaching among Black freshman declined more than white freshman and has remained persistently low. These prolonged declines are most pronounced among Black women. Though White women and men's interest in teaching declined rapidly in the 1970s, it leveled off and rebounded more substantially in the 1980s and 1990s relative to Black teachers.

Overall, these patterns suggest that increasing career opportunities for women and people of color combined with the mass firing of Black southern educators likely played a key role in early declines in interest and preparation for the teaching profession. It is also plausible that expanding access to better-paid occupations, particularly for high-achieving women helped to trigger and sustain early declines in teacher prestige.

Economic Hypothesis #2: Declines in Funding and Subsequent Contractions in the Teacher Labor Market Reduced Interest in the Profession

The financial investment our nation makes in public education and job opportunities in this sector could play a key role in shaping teachers' satisfaction on the job and broader interest

⁶ For simplicity, Figure 6 shows only White and Black racial groups. In Appendix Figure A2, we also show results for Asian and Hispanic students.

in a career in education. A recent meta-analysis of the causal literature on school funding finds compelling evidence that increasing financial resources raises student achievement and attainment (Jackson & Mackevicius, 2024). We first draw on data collected by NCES on expenditures per pupil in K-12 public schools (in constant 2021 dollars), as well as counts of the number of Full Time Equivalent (FTE) teaching positions employed and the number of students enrollment in K-12 public schools. Two noticeable patterns emerge from comparing these data displayed in Figure 7.

Pronounced declines in expenditures per pupil in the late 1970s/early 1980s as well as the early 2010s coincided with both substantial contractions in the overall size of the K-12 public teacher workforce and periods of declining interest in the profession. Stagflation in the 1970s, falling enrollment, and the U.S. recession of 1981-82 lead to a decline of 80,000 FTEs between 1978 and 1981. The second period of declining per pupil expenditures on the in the early 2010s on the heels of the Great Recession resulted in an even larger labor market contraction of over 120,000 FTEs between 2008 and 2010, even though student enrollment did not fall. These labor market contractions reflect real layoffs and job losses (Foster, 1981; Kraft & Bleiberg, 2022), that likely dampened interest in the profession among students given the more limited employment opportunities and job security for novice teachers.

The contrasting patterns of employment growth in the wake of the recessions of 1981-82 and 2008-09 may also hold insights for why the state of the teaching profession rebounded in the late 1980s but has not done so in the 2010s and 2020s. Between 1981 and 1999 U.S. public schools added 783,000 jobs as student enrollment increased by 7 million students. Prestige, interest, preparation, and satisfaction largely followed a similar pattern of growth over this time. In contrast, student enrollment did not decline during the Great Recession, and the size of K-12

public school teacher workforce has still not recovered to its high of 3.2 million FTEs in 2008, despite substantial increases in total expenditures per pupil. These macro-economic patterns suggest that largescale layoffs may have triggered rapid declines in interest in the profession and that macro trends in the degree to which the labor market for U.S. public school teachers is expanding or contracting may shape perceptions, interest and preparation for the career.

Economic Hypothesis #3: Stagnant Teacher Pay Made the Profession Less Attractive

Teacher compensation has long been viewed as a driving force in shaping the prestige and attractiveness of the profession as well as teachers' satisfaction on the job. We focus on a simple and direct measure of compensation, the average annual salary of teachers in K-12 public schools, adjusted for inflation. While many scholars focus on relative wages,⁷ we view real (i.e. inflation adjusted) wages as particularly salient for three reasons. For one, research documents how salary is rarely the primary driver of teachers' career choices; instead, teachers often view their profession as a calling (Johnson, 2004). Second, real wages are, in part, a measure of material working conditions, indicating the extent to which teachers are fairly compensated for their work. Third, real wages are generally public so that prospective and current teachers are aware of them. They constitute a visible, tangible measure of the value society places on the profession.

The first striking feature of the trends in average real wages collected by NCES and shown in Figure 8 is the large decline across the 1970s, occurring exactly when we see a steep drop in prestige, interest, preparation, and satisfaction. Rising inflation and stagnant nominal

⁷ Teachers' relative wages have been a subject of considerable research and debate. Estimating teachers' wages relative to other professions is complicated by the fact that teachers are paid on a 9- or 10-month contract, often work more than their contractual hours, and typically earn meaningful pension and healthcare benefits. Some studies find a teacher wage penalty (Taylor, 2008; West, 2014) while others find wage premiums after accounting for benefits (Regmi, 2022; Liu & Aubry, 2021; Richwine & Biggs, 2011). One measure of relative teacher compensation based on the Current Population Survey shows that the weekly earnings of other college-educated workers rose almost 10% between 2010 and 2021 while teachers' wages were stagnant (Allegretto, 2022).

wages led to a decline in real wages of 13% across the decade. Salaries then rose from \$58,015 in 1980 to \$69,669 in 1990. The rapid recovery in real wages in the 1980s was spurred in part by the concerns raised by prominent federal reports, including *A Nation at Risk* and *A Nation Prepared*. This rise and subsequent plateau in compensation across the 1990s and 2000s closely mirrors the patterns in teacher prestige, interest, preparation, and satisfaction over the same time period. We then see a corresponding decline between 2010 and 2014 in the wake of the Great Recession when real wages fell from \$72,050 to \$68,503. Post-pandemic inflation meant that, even though average teacher salaries in current dollars increased slightly from 2021 to 2022, real wages declined to their lowest levels since 1987. Declines since 2010 coincide with the timing of the recent downturn in the state of the profession, but from 2014 to 2022, wages had stabilized rather than mirroring the steady decline in the state of teaching profession.

Overall, patterns in real teacher wages appear closely related to the overall status of the teaching profession across the first four decades of our 50-year panel. The modest erosion of real wages coupled with large-scale teacher layoffs (Kraft & Bleiberg, 2021) following the Great Recession may have helped to trigger and sustain the most recent downturn in the state of the teaching profession. However, changes in real wages are driven, in part, by periods of rising and falling inflation which create other pressures on teachers' lives, independent of how teacher compensation shapes the status of the profession.

Economic Hypothesis #4: Rising College Costs Discourage Students from Pursing Teaching as a Career

The rising costs of obtaining a bachelor's degree may have also contributed to the declining degree of interest in the teaching profession and the number of individuals preparing for entry. All 50 states require teachers to hold a bachelor's degree to obtain a teaching license.

In real terms, the average annual costs of tuition and fees at four-year undergraduate institutions have risen steadily, more than tripling over the last 40 years from \$5,496 to \$17,251 in 2022 dollars (Figure 9 Panel A). Tuition and fees at traditionally affordable four-year public colleges and universities that house large teacher training programs have risen by over 360% since 1980. Stagnant wages among K-12 public school teachers have caused the ratio of the sticker price of a college degree relative to average annual salaries to rise from 10% to 27% (Figure 9 Panel B).

The steady increase in the costs of obtaining a four-year degree does not follow the specific rise and fall patterns we observe over time. However, it is possible that the rising costs of college hit a threshold around the 2010s when sticker shock began to dissuade potential teachers from attending college or pushed them to pursue other higher paying occupations that require a B.A. Although the federal government has established several loan forgiveness programs for teachers, their impact has been limited by opaque eligibility standards, onerous paperwork requirements, and the inability to defray upfront costs.

Sociopolitical Hypothesis #1: Unionization Affects Occupational Prestige

The role of teacher unions in shaping the status of teacher profession is a topic of considerable debate. On one hand, unionization associates teaching with labor, denoting a working-class dimension that diminishes its professional status. For example, the horizontal nature of the career and fixed salary schedule advanced by unions irrespective of performance may undercut efforts to raise the prestige and appeal of the teaching profession (Hanushek, 2007; Hoxby & Leigh, 2004; Figlio & Kenny, 2007; Podgursky & Springer, 2007). On the other hand, teachers' unions have been key advocates for the profession, raising wages and lobbying for greater teacher autonomy, which could enhance teacher satisfaction on the job (Goldstein, 2014; Murphy, 1990; Rousmaniere, 2005).

We explore the relationships between teacher unionization and the state of the teaching profession by comparing the patterns we found above to longitudinal trends in union membership over the last half century. In Figure 10, we present trends in yearly membership counts at the national level from archival and present-day NEA handbooks and original data provided to us from the AFT.⁸ Teacher union membership increased rapidly in the 1970s, as they gained collective bargaining rights at the state level, and continued to expand across the next several decades. During this period, their unions tended to favor a more “industrial unionism” approach with a top-down organizing style focused on material benefits (Kerchner et al., 1997). This materially oriented, industrial unionism may have undercut societal prestige and student interest in teaching by associating teaching with working-class labor (Rousmaniere, 2005).

However, by the 2010s, union membership growth had stalled and even began to decline.⁹ This is due, at least in part, to labor retrenchment efforts such as Right to Work policies that restrict collective bargaining and make union membership more costly (Lyon, 2023). These policies may have spurred a shift towards more bottom-up union organizing, evidenced by the large-scale strikes collectively organized under the hashtag “#RedforEd.” Dynamics in the nature of teacher organizing could have changed the relationship between unionization and the teaching profession, such that recent state policies weakening teachers’ unions may have had negative consequences for their ability to bargain for higher compensation, better working conditions, and common good provisions that help them attract political allies (Lyon, 2022), impacts that could reverberate into teachers’ unions’ abilities to advocate politically for the teaching profession.

⁸ These membership counts are not mutually exclusive because the AFT and NEA have merged in several states.

⁹ Membership in the AFT appears to stabilize (rather than decline) in the early 2010s, but this period corresponds with a change in reporting such that the apparent stability probably reflects real declines. Prior to 2013, the AFT reported their membership in terms of Full Dues Equivalent (FDE) and not an actual membership count. FDE implies that if two members pay half dues, then those two members would just be counted as one member. In 2013, they switched to an actual membership count, regardless of dues payment.

Education Policy Hypothesis #1: Barriers to Entry Raise Prestige but Lower New Teacher Supply

Considerable disagreement exists over the role of teacher certification and licensure tests in shaping the teaching profession. Some researchers point to the rigorous formal education requirements and high-stakes licensure tests common in the legal and medical professions as the model for raising the status of teachers (Darling-Hammond, 2010). Weeden (2002) describes these barriers to entry as mechanisms of social closure that are intended to restrict labor supply, enhance demand, and signal quality. In practice, research has found that licensure requirements can increase the academic aptitude of new teachers (Larsen et al., 2020), but also create barriers to entry that may obstruct efforts to diversify the teaching profession (Angrist & Guryan, 2008), discourage high-achieving undergraduates (Reback, 2006), and are only modestly related to teacher performance in the classroom (Chung & Zou, 2022; Clotfelter et al., 2007; Clotfelter et al., 2010). Here we examine two major patterns related to barriers to entry in the U.S. public teacher workforce over the last half century: licensure tests and alternative certification.

Efforts to use licensure tests as a means of ensuring that only qualified teaching candidates could become teachers date back to the common school movement. We examine overall trends in state requirements for teachers to pass state licensure tests, while recognizing that the minimum passing score states set is also a key determinant of the barrier these tests create. We merge data from two primary sources; data from 1983-1997 were compiled by Larsen (2014) using a range of original sources, while data from 1998-2018 come from NCES's annual Digests of Educational Statistics. In Figure 11 Panel A, we plot the number of states that required teachers to pass: 1) a basic skills test, 2) a subject-specific test, and 3) professional content knowledge test. These data illustrate a steep rise in the existence of state laws requiring public

school teachers to pass licensure tests from the early 1980s to the mid-1990s. By 1995, state mandated basic licensure tests had spread to 39 states. In the ensuing two decades, basic skills tests appear to have been slowly replaced by subject-specific licensure tests. This trend was accelerated by the Highly Qualified Teacher provisions of the NCLB Act of 2001 which required teachers to demonstrate expertise in their subject area (Kraft, 2018). We then see a sharp rise in all licensure testing types in the mid-2010s. Notably, the rise in public charter schools over the past several decades has not lowered the barrier of licensure requirements because most states still require teachers working in public charter schools to hold a state teaching license (Education Commission on the States, 2016).

Alternative certification pathways first emerged in the 1990s as a way to open access to the teaching profession for individuals. For example, Teach for America's first cohort of 489 teachers began working in schools in 1990 after a brief summer training. In Figure 11 Panel B, we plot the total number of traditional and alternative education preparation program completers between 2000 and 2021 collected by the Office of Title II. The overall number of public-school teachers entering the teaching profession through alternative pathways has remained relatively small and steady over the last two decades, ranging between 24,800 and 41,700. The decline in enrollment in traditional teacher preparation programs over the last decade, however, has meant that the percentage of teachers who enter the profession via an alternative path has increased steadily, comprising one out of every four new teachers in 2021.

It is difficult to see clear and consistent patterns between tightening or loosening barriers to entry and occupational prestige and new teacher supply. The most consistent evidence is the concurrent improvements in prestige in the 1980s with the steep increase in licensure exam requirements. However, these requirements have only continued to rise in the 2010s during the

steep downturn in the prestige of the teaching profession with the adoption of high-stakes testing and certification requirements such as EdTPA (Chung & Zou, 2022). The rise in alternative teacher preparation programs pre-dates the recent period of decline in the teaching profession and does not appear to be large enough to drive the overall trends we see.

Education Policy Hypothesis #2: Teacher Accountability Has Undercut Teacher Prestige, Interest, Preparation, and Satisfaction

Efforts to implement accountability regimes in public education have direct implications for the status of the teaching profession across all the constructs we measure, particularly prestige and preparation. In the early 1970s, public schools were in the midst of the standards movement to introduce state-wide achievement tests and implement “competency based” teacher evaluation (Mehta, 2013; Goldstein, 2014). In 2001, NCLB established high-stakes accountability at the national level. While NCLB focused primarily on schools rather than teachers, these accountability pressures meant that teachers in schools most at risk of being sanctioned for failing to meet Adequate Yearly Progress experienced a meaningful decline in their perceived job security and intentions to teach until retirement (Reback, Rockoff, & Schwartz, 2014). Under the Obama administration, the focus on accountability shifted from schools to teachers, with both Race to the Top grants and state waivers to NCLB requiring high-stakes evaluations for teachers.

Accountability may have affected teacher prestige and satisfaction by undercutting professionalism. Freidson (2001) describes professionalism as circumstances where occupational members control their work because this work is viewed as so specialized that it cannot be standardized, rationalized, or commodified and can only be performed by those with formal training. Accountability likely undercuts professionalism by implying that the work of teachers

could be standardized and, to some extent, commodified. It ushered in an era of increased efforts to standardize curriculum, instructional materials, and in some cases, instructional techniques in an effort to better align classroom practices with performance measures (Ingersoll, 2009). It also may have affected satisfaction by granting administrators enhanced authority to dismiss teachers due to poor evaluation ratings, although there is little evidence of any substantial increase in the number of teachers who were actually fired for cause (Kraft & Gilmour, 2017). Finally, prior research demonstrates that a broad bundle of accountability reforms including adopting high-stakes performance evaluations, eliminating tenure, and increasing the length of the probationary period decreased the overall supply of new teachers (Kraft et al., 2020).

We examine these mechanisms by tracking changes in teachers' perceptions of their job security, autonomy and authority, and influence on school-level policy using repeated waves of the nationally representative SASS and NTPS surveys. As shown in Figure 12 Panel A, the percentage of teachers that do not worry about their job security because of their students' performance on standardized tests declined from 42% to 27% between 1999 and 2015, a 36% drop. This decline in perceived job security related to student performance on state tests was most pronounced between 2008 and 2012, precisely when states across the country began developing, piloting, and implementing new high-stakes teacher evaluation systems. During the 2020-21 school year, when many states cancelled or removed the high stakes associated with standardized tests and/or cancelled state testing, the percent of teachers that feel secure increased dramatically, nearly reaching 2000 levels (41%). Over the same period, Figure 12 also illustrates a steady decline in teachers' sense of autonomy and authority over a range of instructional decisions (Panel B) and influence over some aspects of their work (Panel C), particularly for discipline policy and practices, the selection of textbooks and other materials, and setting

performance standards. Notably, teachers' sense of autonomy and authority over the selection of textbooks and other material experienced a sharp drop in 2021, perhaps due to the introduction of divisive concepts laws restricting instruction and banning books that address issues of racism and sexuality (Woo et al., 2022).

The patterns of teachers' perceived job security, autonomy and authority, and influence in the classroom are somewhat consistent with a hypothesis that the implementation of top-down accountability systems contributed to the declining state of the teaching profession. Initial declines in the available data first emerge in the 2000s with the introduction of test-based accountability under NCLB, prior to the steep decline in the status of teachers in the 2010s. Teachers' concerns about job security and professionalism became more acute during the push to expanded high-stakes evaluations for teachers in the early 2010s. During the Covid-19 pandemic, perceptions of job security then increased, perhaps explaining some of the subsequent recoveries in the state of the profession that we observe in 2023 (see Figure 5 Panel C).

School Environment Hypothesis #1: Poor Teacher Working Conditions Make the Profession Less Attractive and Enjoyable

Teachers' working conditions create the contexts that enable or undercut their success with students and shape their satisfaction on the job (Johnson, 2020). Measuring teachers' working conditions presents a challenge given that many important elements relate to interpersonal relationships with colleagues and school administrators. We draw on data collected by the NEA and the SASS/NTPS to track six domains of teachers' working conditions that are commonly featured in the literature: class size, leadership, colleagues, time, resources, and student behavior (Merrill, 2021).

Trends in average class size over the past half century have differed between general elementary school teachers and subject-specific teachers. As shown in Figure 13 Panel A, average class sizes for non-departmentalized elementary teachers have fallen steadily from 27 to 19 students between 1970 and 2021. Class sizes for departmentalized teachers have fluctuated over time with a decline in the 1970s, a rise in the 1980s into the 1990s, and an apparent decline in recent years, perhaps due to declining enrollment (Figure 13 Panel B). Figure 13 Panels C and D illustrate how teachers' perceptions about the support they receive from their school leaders, cooperation among their colleagues, time unburdened by paperwork, and material resources all follow a broadly similar pattern. We observe a rise of positive perceptions around five to ten percentage points across the 2000s and a more modest decline between 2008 and 2012, which appears to have plateaued through 2021 for most measures, with slight improvements in positive perceptions about materials being available and time being protected from paperwork. Teachers' perceptions of student behavior in school, shown in Figure 13 Panel E, suggest challenges with tardiness, class-cutting and absenteeism have increased in recent years but that student apathy is less of a problem than it was in the 1990s.

Although ample research documents the importance of working conditions for teachers' career decisions, we find limited evidence that macro-trends in working conditions are aligned with the dynamic changes we document in interest, preparation, and job satisfaction. Class sizes for elementary school teachers have declined steadily over the past half-century, while class sizes for subject-specific teachers fluctuate more but are at their lowest levels in decades. Teachers' perceptions of their working conditions rose during the 2000s when trends in the profession were static. There is some evidence of a small decline around 2010, but it seems to have been temporary with the exception of challenges due to student attendance. However, the absence of

measures for other key features of teachers' work environments (e.g., teacher leadership) limit the conclusions we can make regarding working conditions.

School Environment Hypothesis #2: Safety Concerns Make the Profession Less Attractive and Enjoyable

School safety is a pressing concern for teachers, students, and parents alike. Perceptions about safety are likely to shape interest, preparation, and satisfaction in the teaching profession. In the 1960s and 1970s, social unrest and increasing economic and racial segregation led to a transformation of urban schooling (Reese, 1995). Fears of inner-city youth, fueled by racism and the media's sensationalization of juvenile delinquency, gave rise to perceptions of inner-city schools as "blackboard jungles," where protests, violence, and vandalism were common (Kafka, 2011). The public began to view urban teaching as dangerous work focused on behavior management as zero-tolerance discipline policies proliferated. While longitudinal data for measures of school safety does not extend back this far, we can track the frequency that teachers report being threatened or attacked as well as the frequency of student victimization incidents since the early 1990s. Data from the SASS shown in Figure 14 Panels A suggest a modest rise in the frequency of teachers being threatened or physically attacked over the last decade and then a decline in the 2020-21 pandemic schooling year when remote instruction would have limited this possibility. On the other hand, data from the National Crime Victimization Survey shown in Figure 14 Panel B show a broad and steady decline in student victimizations.

We also explore the frequency of school shooting incidents and victims per year from 1970 to 2022. Since 1970, 159 teachers have been shot while on the job. Mass school shootings in Columbine, Parkland, and Uvalde have rocked the nation and led schools to conduct active shooter drills and increase security. Research has shown how traumatic events like the Beltway

Sniper shootings lower student achievement, but less is known about how these events affect teachers (Gershenson & Tekin, 2018; Gershenson & Hayes, 2018). Figure 14 Panel C depicts these data collected by the Center for Homeland Defense and Security housed at the Naval Postgraduate School. Trends in school shooting incidents and victims across time show a gradual rise across the first four and a half decades with meaningful variation from year to year. Starting in 2017, shooting events have spiked, reaching levels of over 100 shooting incidents per year in each of the last five years. These tragic events are now occurring at five times their historic average. It is plausible that the rise in physical attacks on teachers around 2010 and recent spike in school shootings that are widely covered in the media have contributed to declines in interest, preparation, and satisfaction in the teaching profession in the past decade.

Discussion & Conclusion

Historical time-series data on the state of the K-12 teaching profession across more than a dozen different sources place the current moment in stark perspective. Prestige, interest, preparation, and satisfaction are at or near their very lowest point in over a half century. We view this evidence as cause for significant concern given both the large role of the teacher labor market in our economy and the importance of the teaching profession for the life opportunities of current and future generations of American students. At the same time, historical data illustrate that the current decline in the state of the profession is not without precedent. Teachers experienced a similarly steep and prolonged decline in status during the 1970s, rebounding throughout the 1980s and remained relatively stable through the 2000s. Better understanding the forces behind this previous fall and rise holds promise for diagnosing and reversing the current decline.

Several factors stand out as likely explanations for the rapid fall and rise in the state of the teaching profession across the 1970s, 1980s and 1990s including changing labor market opportunities, sharp declines and rebounds in student enrollment and real teacher salaries, teacher layoffs and then rapid growth in the size of teacher labor market. Of course, many other substantial changes to the U.S. education system were also happening during this time. For example, the number of states that adopted mandatory collective bargaining laws tripled in the 1970s, more closely associating teachers with other unionized blue-collar industries and civil servants. Districts across the country were also developing and implementing court-ordered school desegregation plans, leading to racialized backlashes and White flight to suburban and private schools (Johnson, 2019). Schools, particularly in urban areas, were increasingly seen as dangerous places, so much so that the Senate formed a subcommittee to investigate juvenile delinquency (Reece, 1995). In the 1980s, prominent reports such as *A Nation at Risk* and *A Nation Prepared* sparked national concern about the quality of the U.S. teacher workforce. These federal reports galvanized prodigious reform efforts at the state level to enhance academic excellence through increased funding and autonomy as well as more rigorous content and curriculum (Kirst, 1995). They also elevated public perceptions about the importance of K-12 education by linking it to our national competitiveness in a rapidly globalizing economy.

The current decline in the state of the profession that started around 2010 also appears to be driven by multiple factors including stagnant teacher wages, the rising cost of college, perceived losses in teacher authority and job security, and new policies and accompanying rhetoric targeting teachers' unions. Additional factors might include changing cultural perceptions about the teaching profession around 2010, embodied by multiple cover articles in *Newsweek* and *Time* magazines casting teachers as "Rotten Apples" and stating, "We must fire

bad teachers” (Pawlewicz, D. D. A, 2020). Although the recent period of decline in the wellbeing of the teaching profession pre-dates the Covid-19 pandemic, the pandemic clearly added new challenges. Between 2018 and 2022, the percentage of parents who say they would like for their children to be teachers dropped from an already low 46% to 37%. A 2022 survey of U.S. households by NORC (2022) found that only 18% of respondents reported being likely to encourage their child or another younger person to become a K-12 teacher. Data from the nationally representative American Educator Panel show that teacher stress and burnout rose appreciably during the pandemic years and are meaningfully higher than levels experienced by the broader population of working adults (Steiner et al., 2022). At the same time, wave of new state divisive concept laws restricting discourse on racism and sexuality in schools and prompting growing effort to ban books that address these topics have cast teachers into the center of the political discourse and raised concerns among educators about their job security (Woo et al., 2022)

Disentangling the relative importance of each of these factors is challenging, but the simple time-series evidence we present suggests that increasing pay and reducing the costs of teacher preparation represent possible policy levers for shaping the overall state of the profession. To date, federal efforts to subsidize college for students who study to become public school teachers such as the TEACH grant and Teacher Loan Forgiveness program appear to be too small, complex, and burdensome to be effective (Peyton et al., 2023; Jacob et al., 2024). Researchers and policymakers should also look beyond compensation and college costs as they consider how we might improve the attractiveness of the profession. High school students who expressed potential interest in a career in education on the ACT cited better pay as the most common factor that would increase their interest, but identified more autonomy, more

opportunities for career advancement, and more professional prestige as the second, third, and fourth most important factors (Croft, Guffy, & Vitale, 2018). We find evidence consistent with the idea that teachers' perceived loss of professional autonomy over the last decade may be a salient factor for the decline in teacher prestige and satisfaction. The introduction of high-stakes teacher evaluations may have played a role in accelerating the loss of teachers' perceived professional autonomy, while also undercutting teachers' perceived sense of job security – a valued non-pecuniary benefit of the profession among current teachers (Lang & Palacios, 2018).

Policy efforts to reverse the trend of top-down control over teachers' practice and develop meaningful career ladders might be promising areas for policy innovation. This is not to say that teachers should be left alone in their classroom or expected to develop curricular materials on their own. Such practices can lead to inconsistent instruction, professional isolation, and burnout (Johnson & Birkland, 2003). Instead, efforts to support teachers through coaching, professional learning communities, and peer observation and review programs might create the conditions, and develop the skills, teachers need to feel successful with their students and ensure the profession maintains high standards (Papay & Johnson, 2012). We also must grapple with the rapid rise in deadly school shootings that undermine the basic sense of security necessary for effective teaching and learning. Finally, coalitional approaches to teacher organizing, like “bargaining for the common good,” and bottom-up collective action may provide opportunities for teachers and their unions to influence politics and policymaking alongside other organizations representing working people (Hertel-Fernandez et al., 2020; Lyon, 2022).

The amount of public respect and student interest, the quantity of newly trained and licensed perspective teachers, and the level of satisfaction among the teacher workforce are not the only features of the profession that matter. *Who* enters and stays in the profession is also

paramount to providing a high-quality education to all students. Attracting and retaining a more diverse and effective teaching workforce is central to these efforts. K-12 public school teachers have become incrementally more diverse, with the percentage of Black, Asian, and Hispanic teachers increasing by 1.4, 1.8, and 8.4 percentage points between 1987-88 and 2020-21 (SASS/NTPS), but the workforce remains overwhelmingly White and unrepresentative of public school students today. Research suggests that efforts to recruit more students of color into teaching are an insufficient strategy without concurrent efforts to address racial discrimination in teacher hiring and evaluation, tokenism, and uncompensated additional duties educators of color are often asked to take on and that lead to high rate of attrition (Frank et al., 2021; Grissom & Bartanen, 2022; Grooms et al., 2021).

Understanding changes in teacher effectiveness over time is far more challenging given that direct measures of teacher performance are not available at the national level. Prior research has used measures of teacher aptitude and college competitiveness as imperfect but instructive proxies for teacher effectiveness (Bacolod, 2007; Corcoran, Schwab, & Evans, 2004; Goldhaber & Walch, 2013; Lankford et al., 2014). Taken together, these studies suggest that during the 1970s, 1980s, and 1990s, the average academic ability of teachers declined substantially, particularly for women. However, since the 2000s, several studies have documented a rise in teacher aptitude as measured by performance on standardized tests, especially in more recent years (Goldhaber & Walch, 2013; Lankford et al., 2014). Studies that examine these patterns in further depth and explore how they are related to the constructs we measure will be key to better understanding the dynamic nature of who selects into the profession.

Major challenges also lie ahead. Declining public school enrollments, the end of Federal aid to support districts in the wake of the Covid-19 pandemic, and growing efforts to reallocate

public school funding towards private school voucher programs will likely force districts to tighten their belts and possibly lead to teacher layoffs. Past rounds of layoff and periods of contracting job opportunities coincide with substantial declines in the state of the teaching profession. While these market changes may ease the staffing challenges some schools face in the short run, they will likely undercut efforts to attract the next generation of teachers and ensure that they are the well-trained and talented professionals we want in every classroom.

Elevating the teaching profession is a generational task, but one that would produce considerable benefits for both individual students and the nation. As our exploratory analyses demonstrate, the status of the teaching profession is neither arbitrary nor preordained. Rather, it is a consequence of specific choices made by education leaders, policymakers, and our society as a whole. We have the agency to make different decisions and build on newly emerging bright spots amidst the worrisome evidence. The number of individuals completing preparation programs increased slightly in 2021, as did some measures of teacher satisfaction in 2023. In a recent nationally representative survey, two out of three adults viewed teachers as undervalued, suggesting a broadly held interest in reversing the present trends (Ed Choice, 2022). Similarly, 67% of respondents to the 2023 nationally representative PDK survey said they would support increasing teacher salaries even if it meant raising local property taxes. Placing the current state of the teaching profession within historical perspective helps us to see the gravity of the current moment and the agency we have as a society to reverse its decline.

References

- Aldeman, C. (2022, September 28). Why are fewer people becoming teachers? *Ed Next Blog*. <https://www.educationnext.org/why-are-fewer-people-becoming-teachers/>
- Allegretto, S. (2022, August 16). The teacher pay penalty has hit a new high. *Economic Policy Institute*. <https://www.epi.org/publication/teacher-pay-penalty-2022/>
- Angrist, J. D., & Guryan, J. (2008). Does teacher testing raise teacher quality? Evidence from \ state certification requirements. *Economics of Education Review*, 27(5), 483-503.
- Bacolod, M. P. (2007). Do alternative opportunities matter? The role of female labor markets in the decline of teacher quality. *The Review of Economics and Statistics*, 89(4), 737-751.
- Banerjee, N., Stearns, E., Moller, S., & Mickelson, R. A. (2017). Teacher job satisfaction and student achievement: The roles of teacher professional community and teacher collaboration in schools. *American Journal of Education*, 123(2),
- Barnum, M. (2023, March 6). Teacher turnover hits new highs across the U.S. *Chalkbeat*. <https://www.chalkbeat.org/2023/3/6/23624340/teacher-turnover-leaving-the-profession-quitting-higher-rate>
- Bartanen, B., & Kwok, A. (2022). From interest to entry: The teacher pipeline from college application to initial employment. (EdWorkingPaper: 22-535). Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/hqn6-k452>
- Blau, P. M., & Duncan, O. D. (1967). *The American occupational structure*. John Wiley & Sons Inc.
- Brown, F. (1995). Privatization of public education: Theories and concepts. *Education and Urban Society*, 27(2), 114-126.
- Corcoran, S. P., Evans, W. N., & Schwab, R. M. (2004). Changing labor-market opportunities for women and the quality of teachers, 1957-2000. *American Economic Review*, 94(2), 230-235.
- Chetty, R., Friedman, J. N., & Rockoff, J. E. (2014). Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood. *American Economic Review*, 104(9), 2633-79.
- Chung, B. W., & Zou, J. (2022). Teacher licensing, teacher supply, and student achievement: Nationwide implementation of edTPA. (EdWorkingPaper: 21-440). Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/ppz4-gv19>
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2007). Teacher credentials and student achievement: Longitudinal analysis with student fixed effects. *Economics of education review*, 26(6), 673-682.
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *Journal of Human Resources*, 45(3), 655-681.
- Corcoran, S. P. (2007). Long-run trends in the quality of teachers: Evidence and implications for policy. *Education Finance and Policy*, 2(4), 395-407.
- Cowan, J., Goldhaber, D., Hayes, K., & Theobald, R. (2016). Missing elements in the discussion of teacher shortages. *Educational Researcher*, 45(8), 460-462.
- Croft, M., Guffy, G., & Vitale, D. (2018). Encouraging more high school students to consider teaching. *ACT Research & Policy*.
- Darling-Hammond, L. (2010). Teacher education and the American future. *Journal of teacher education*, 61(1-2), 35-47.

- Diliberti, M. K., & Schwartz, H. L. (2022). Districts continue to struggle with staffing, political polarization, and unfinished instruction: Selected findings from the fifth American school district panel survey. Research Report. RR-A956-13. *RAND Corporation*.
- Drury, D., & Baer, J. (2011). *The American Public School Teacher: Past, Present, and Future*. Harvard Education Press.
- Education Commission of the States. (2020). Charter schools: Do teachers in a charter school have to be certified? <https://ecs.secure.force.com/mbdata/MBQuestNB2C?rep=CS2021>
- EdChoice. (2022, August). The public, parents, and K-12 education. A national polling report. <https://edchoice.morningconsultintelligence.com/assets/179257.pdf>
- Edwards, D.S., Kraft, M.A., Christian, A., & Candelaria, C. (in press). Teacher shortages: A framework for understanding and predicting vacancies. *Educational Evaluation and Policy Analysis*.
- Eide, E., Goldhaber, D., & Brewer, D. (2004). The teacher labour market and teacher quality. *Oxford Review of Economic Policy*, 20(2), 230-244.
- Figlio, D. N., & Kenny, L. W. (2007). Individual teacher incentives and student performance. *Journal of Public Economics*, 91(5), 901-914.
- Foster, S. G. (1981, September 7). Up to 50,000 teachers face layoffs as school opens. *Education Week*. <https://www.edweek.org/education/up-to-50-000-teachers-face-layoff-as-school-opens/1981/09>
- Frank, T. J., Powell, M. G., View, J. L., Lee, C., Bradley, J. A., & Williams, A. (2021). Exploring racialized factors to understand why Black mathematics teachers consider leaving the profession. *Educational Researcher*, 50(6), 381-391
- Freidson, E. (2001). *Professionalism, the third logic: On the practice of knowledge*. University of Chicago press.
- Gamson, D. (2009). Democracy Undone: Reforming and Reinventing the American School District, 1945-2005. In Wong, K. K., & Rothman, R. (Eds.). *Clio at the table: Using history to inform and improve education policy* (Vol. 52). Peter Lang.
- Gershenson, S., & Hayes, M. S. (2018). The implications of summer learning loss for value-added estimates of teacher effectiveness. *Educational Policy*, 32(1), 55-85.
- Gershenson, S., & Tekin, E. (2018). The effect of community traumatic events on student achievement: Evidence from the beltway sniper attacks. *Education Finance and Policy*, 13(4), 513-544.
- Goldhaber, D., & Hannaway, J. (2009). *Creating a New Teaching Profession*. Urban Institute Press. 2100 M Street NW, Washington, DC 20037.
- Goldhaber, D., & Holden, K. L. (2021). The early teacher pipeline: What data do—and don't—tell us. *Phi Delta Kappan*, 103(3), 13-16.
- Goldhaber, D., Krieg, J., Theobald, R., & Liddle, S. (2022). Lost to the system? A descriptive exploration of teacher candidates' career paths. *Educational Researcher*, 51(4), 255-264.
- Goldhaber, D., & Walch, J. (2013). Rhetoric versus reality: Is the academic caliber of the teacher workforce changing?. *Center for Education Data and Research, University of Washington, Bothell*, 202013-4.
- Goldhaber, D., & Theobald, R. (2022). Teacher attrition and mobility over time. *Educational Researcher*, 51(3), 235-237.
- Goldstein, D. (2014). *The teacher wars: A history of America's most embattled profession*. Anchor Books.
- Grissom, J. A. (2011). Can good principals keep teachers in disadvantaged schools? Linking

- principal effectiveness to teacher satisfaction and turnover in hard-to-staff environments. *Teachers College Record*, 113(11), 2552-2585.
- Grissom, J. A., & Bartanen, B. (2022). Potential race and gender biases in high-stakes teacher observations. *Journal of Policy Analysis and Management*, 41(1), 131-161.
- Grissom, J. A., Nicholson-Crotty, S., & Harrington, J. R. (2014). Estimating the effects of No Child Left Behind on teachers' work environments and job attitudes. *Educational Evaluation and Policy Analysis*, 36(4), 417-436.
- Grooms, A. A., Mahatmya, D., & Johnson, E. T. (2021). The Retention of educators of color amidst institutionalized racism. *Educational Policy*, 35(2), 180-212.
- Hanushek, E. A. (2007). The single salary schedule and other issues of teacher pay. *Peabody Journal of Education*, 82(4), 574-586.
- Harper, J., Gilmour, A. F., & Galea, N. (2022). Trends in the Potential Supply of New Special Educators. *Exceptionality*, 1-17.
- Hertel-Fernandez, A., Naidu, S., & Reich, A. (2020). Schooled by strikes? The effects of large-scale labor unrest on mass attitudes toward the labor movement. *Perspectives on Politics*, 1-19.
- Hoxby, C. M., & Leigh, A. (2004). Pulled away or pushed out? Explaining the decline of teacher aptitude in the United States. *American Economic Review*, 94(2), 236-240.
- Ingersoll, R. M. (2009). *Who controls teachers' work?: Power and accountability in America's schools*. Harvard University Press.
- Ingersoll, R. M., & Collins, G. J. (2018). Accountability, control, and teachers' work in American schools. *The Wiley handbook of educational supervision*, 159.
- Jacinto, A., & Gershenson, S. (2021). The intergenerational transmission of teaching. *American Educational Research Journal*, 58(3), 635-672.
- Jackson, C. K. (2018). What do test scores miss? The importance of teacher effects on non-test score outcomes. *Journal of Political Economy*, 126(5), 2072-2107.
- Jackson, C. K., & Mackevicius, C. L. (2024). What Impacts Can We Expect from School Spending Policy? Evidence from Evaluations in the United States. *American Economic Journal: Applied Economics*, 16(1), 412-446.
- Jacob, B.A., Jones, D., & Keys, B.J. (2024) The Value of Student Debt Relief and the Role of Administrative Barriers: Evidence from the Teacher Loan Forgiveness Program. *Journal of Labor Economics*, 42(S1) S261-S292.
- James, J.K., Kraft, M.A., & Papay, J.P. (2023). Local supply, temporal dynamics, and unrealized potential in teacher hiring. *Journal of Policy Analysis and Management*, 42(4), 1010-1044.
- Johnson, R. C. (2019). *Children of the dream: Why school integration works*. Basic Books.
- Johnson, S. M. The Next Generation of Teachers. (2004). *Finders and keepers: Helping new teachers survive and thrive in our schools*. Jossey-Bass.
- Johnson, S. M., & Birkeland, S. E. (2003). Pursuing a "sense of success": New teachers explain their career decisions. *American Educational Research Journal*, 40(3), 581-617.
- Johnson, S. M. (2020). *Where teachers thrive: Organizing schools for success*. Harvard Education Press.
- Kafka, J. (2011). *The history of "zero tolerance" in American public schooling* (p. 5699). New York: Palgrave Macmillan.
- Kerchner, C. T., Koppich, J., & Weeres, J. G. (1997). *United mind workers: Unions and teaching in the knowledge society* (1st ed. ed.). San Francisco: Jossey-Bass.

- Kirst, M. (1995). Who's in Charge? Federal, State, and Local Control. In Ravitch, D., & Vinovskis, M. A. (Eds.). *Learning from the past: What history teaches us about school reform*. JHU Press.
- Kraft, M.A. (2018). Federal efforts to improve teacher quality. In Hess R. & McShane, M. (Eds.). *Bush-Obama School Reform: Lessons Learned*. *Harvard Education Press*. 69-84.
- Kraft, M. A. (2019). Teacher effects on complex cognitive skills and social-emotional competencies. *Journal of Human Resources*, 54(1), 1-36.
- Kraft, M. A., & Gilmour, A. F. (2017). Revisiting the widget effect: Teacher evaluation reforms and the distribution of teacher effectiveness. *Educational researcher*, 46(5), 234-249.
- Kraft, M. A., Brunner, E. J., Dougherty, S. M., & Schwegman, D. J. (2020). Teacher accountability reforms and the supply and quality of new teachers. *Journal of Public Economics*, 188, 104212.
- Kraft, M. A., & Bleiberg, J. F. (2022). The inequitable effects of teacher layoffs: What we know and can do. *Education Finance and Policy*, 17(2), 367-377.
- Labaree, D. F. (2000). On the nature of teaching and teacher education: Difficult practices that look easy. *Journal of Teacher Education*, 51(3), 228-233.
- Lang, K., & Palacios, M. D. (2018). *The determinants of teachers' occupational choice* (No. w24883). National Bureau of Economic Research.
- Lankford, H., Loeb, S., McEachin, A., Miller, L. C., & Wyckoff, J. (2014). Who enters teaching? Encouraging evidence that the status of teaching is improving. *Educational Researcher*, 43(9), 444-453.
- Larsen, B. (2014). Occupational licensing and quality: Distributional and heterogeneous effects in the teaching profession. Working Paper.
- Larsen, B., Ju, Z., Kapor, A., & Yu, C. (2020). The effect of occupational licensing stringency on the teacher quality distribution (No. w28158). *National Bureau of Economic Research*.
- Liu, S., & Aubry, J. (2021). What do we know about public teacher compensation. *Issue Brief Number*, 80.
- Lopes, J., & Oliveira, C. (2020). Teacher and school determinants of teacher job satisfaction: a multilevel analysis. *School Effectiveness and School Improvement*, 31(4), 641-659.
- Lortie, D. C. (1975). *Schoolteacher: A sociological study*. University of Chicago Press.
- Lyon, M. A. (2022). Current perspectives on teacher unionization, and what they're missing. *Educational Policy*, 37(5), 1420-1443.
- Lyon, M. A. (2023). The effect of Right to Work laws on union membership and school resources: Evidence from 1942–2017. *Educational Researcher*, 52(6), 339-347.
- Madigan, D. J., & Kim, L. E. (2021). Towards an understanding of teacher attrition: A meta-analysis of burnout, job satisfaction, and teachers' intentions to quit. *Teaching and teacher education*, 105, 103425.
- Master, B., Sun, M., & Loeb, S. (2018). Teacher workforce developments: Recent changes in academic competitiveness and job satisfaction of new teachers. *Education Finance and Policy*, 13(3), 310-332.
- Mehta, J. (2013). *The allure of order: High hopes, dashed expectations, and the troubled quest to remake American schooling*. Oxford University Press.
- McVey, K. P., & Trinidad, J. (2019). Nuance in the Noise: The Complex Reality of Teacher Shortages. *Bellwether Education Partners*.
- Merrill, B. C. (2021). Configuring a construct definition of teacher working conditions in the

- United States: A systematic narrative review of researcher concepts. *Review of Educational Research*, 91(2), 163-203.
- Murnane, R., Singer, J. D., Kemple, J., & Olsen, R. (2009). *Who will teach?: Policies that matter*. Harvard University Press.
- Murphy, M. (1990). *Blackboard unions: The AFT and the NEA, 1900-1980*. Ithaca, New York: Cornell University Press.
- NORC. (2022, September 8). Survey: Few Americans would encourage a young person to become a teacher. <https://www.norc.org/NewsEventsPublications/PressReleases/Pages/survey-few-americans-would-encourage-a-young-person-to-become-a-teacher.aspx>
- Papay, J. P., & Johnson, S. M. (2012). Is PAR a good investment? Understanding the costs and benefits of teacher peer assistance and review programs. *Educational Policy*, 26(5), 696-729.
- Partelow, L. (2019). What to make of declining enrollment in teacher preparation programs. *Center for American Progress*. <https://www.americanprogress.org/issues/education-k-12/reports/2019/12/03/477311/make-declining-enrollment-teacher-preparation-programs>.
- Pawlewicz, D. D. A. (2020). *Blaming teachers: Professionalization policies and the failure of reform in American history*. Rutgers University Press.
- Pawlewicz, D. D. A. (2021, November 18th). Today's teacher shortages are part of a longer pattern. *The Washington Post*. <https://www.washingtonpost.com/outlook/2021/11/18/todays-teacher-shortages-are-part-longer-pattern/>
- Peyton, D. J., van Dijk, W., & Mason-Williams, L. (2023). Meeting the moment: Impact of TEACH grant on US undergraduate education degree completion in high-need content areas. *Higher Education Policy*, 36(3), 431-456.
- Podgursky, M. J., & Springer, M. G. (2007). Teacher Performance Pay: A Review. *Journal of Policy Analysis and Management*, 26(4), 909-949.
- Reback, R. (2006). Entry costs and the supply of public school teachers. *Education Finance and Policy*, 1(2), 247-265.
- Reback, R., Rockoff, J., & 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), 207-41.
- Reece, W.J. (1995). Reefer Madness and A Clockwork Orange. In Ravitch, D., & Vinovskis, M. A. (Eds.). *Learning from the past: What history teaches us about school reform*. JHU Press.
- Regmi, K. (2022). New evidence on teacher pay. *Industrial Labor Relations Review*, 75(5), 1240-1268.
- Richwine, J., & Biggs, A. G. (2011). Assessing the compensation of public-school teachers. *Center for Data Analysis Report*, 11(03).
- Rousmaniere, K. (2005). *Citizen teacher: The life and leadership of Margaret Haley*. Albany, NY: SUNY Press.
- Sedlak, M., & Schlossman, S. (1986). *Who will teach? Historical perspectives on the changing appeal of teaching as a profession*. RAND Corporation, Santa Monica, CA.
- Siegel, P. M. (1971). *Prestige in the American occupational structure*. The University of Chicago.

- Steiner, E. D., Doan, S., Woo, A., Gittens, A. D., Lawrence, R. A., Berdie, L. . . & Schwartz, H. L. (2022). Restoring teacher and principal well-being is an essential step for rebuilding schools. Research Report. RR-A1108-4. *RAND Corporation*.
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortages in the US. *Learning Policy Institute*.
- Sykes, G. (1983). Teacher preparation and the teacher workforce: Problems and prospects for the 80s. *American Education*, 19(2), 23-29.
- Taylor, L. L. (2008). Comparing teacher salaries: Insights from the US census. *Economics of Education Review*, 27(1), 48-57.
- Thompson, O. (2022). School desegregation and Black teacher employment. *Review of Economics and Statistics*, 104(5), 962-980.
- Warren, J. R., Sheridan, J. T., & Hauser, R. M. (1998). Choosing a measure of occupational standing: How useful are composite measures in analyses of gender inequality in occupational attainment?. *Sociological Methods and Research*, 27, 3-76.
- Weeden, K. A. (2002). Why do some occupations pay more than others? Social closure and earnings inequality in the United States. *American journal of sociology*, 108(1), 55-101.
- West, K. L. (2014). New measures of teachers' work hours and implications for wage comparisons. *Education Finance and Policy*, 9(3), 231-263.
- Will, M. (2020, December 2). How teachers' unions are influencing decisions on school reopening. *Education Week*.
- Woo, A., Wolfe, R. L., Steiner, E. D., Doan, S., Lawrence, R. A., Berdie, L., ... & Schwartz, H. L. (2022). Walking a fine line—Educators' views on politicized topics in schooling. Research Report. RR-A1108-5. *RAND Corporation*.

Tables

Table 1. All Datasets

Data Source	Domain(s)	Organization	Sample Size	Sampling Target and Method	Time Range
Harris Poll	Prestige	Harris International	1,200-2,200	Adults (18+); random sample	1977-2011 (annual), 2022
PDK Polls	Prestige	Gallup & Langer Research Associates	~1,000	Adults (18+), parent subsample; random sample	1970-2022 (intermittent)
CIRP The Freshman Survey	Interest; Economic	HERI & CIRP	200,000-415,000	First year college students in participating universities; weights applied	1970-2017 (annual)
MTF	Interest	University of Michigan	16,000	12th grade students (public and private schools); multistage area probability sample design	1976-2021 (annual)
NCES Surveys of High School Seniors	Interest	NCES	15,000-30,000	12th grade students (public and private schools); stratified random sample	1972-2012 (intermittent)
IPEDS	Preparation	NCES	Population	Postsecondary graduates	1986-2021 (annual)
HEGIS	Preparation	NCES	Population	Postsecondary graduates	1970-1985 (annual)
Title II	Preparation; Educational Policy	United States Department of Education	Population	New teacher licenses	2000-2021 (annual)
SASS/NTPS	Satisfaction; Educational Policy; School Environment	NCES	~45,000-60,000	K-12 public school teachers; stratified random sample	1988-2021 (intermittent)
Survey of the American Teacher	Satisfaction; School Environment	Metlife, Harris Interactive, and Merrimack College	~1,000	K-12 public school teachers; weights applied	1984-2012 (annual), 2022, 2023
Status of the American School Teacher	Satisfaction	NEA	1,000-5,000	K-12 public school teachers; stratified random sample	1970-2006 (every 5 years)
AFT Survey	Satisfaction	AFT	~1,000	AFT members; random sample	1991-2022 (intermittent)
ATP	Satisfaction	RAND	~1,000	K-12 public school teachers (consistent panel); stratified random sample	2020-2023 (annual)
Digest of Education Statistics	Economic; School Environment; Educational Policy	NCES	Population	K-12 public schools	1970-2022 (annual)
NEA Membership	Sociopolitical	NEA	Population	NEA members	1970-2022 (annual)
AFT Membership	Sociopolitical	AFT	Population	AFT members	1970-2022 (annual)
Larsen (2014)	Educational Policy	Larsen (2014)	Population	50 states	1983-2010 (annual)
Shooting Incidents Records within Schools	School Environment	Center of Homeland Defense and Security	Population	K-12 public schools	1970-2022 (annual)

Notes: Phi Delta Kappan (PDK), Higher Education Research Institute (HERI), Cooperative Institutional Research Program (CIRP), Monitoring the Future (MTF), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), Higher Education General Information Survey (HEGIS), Schools and Staffing Survey (SASS), The National Survey of Teachers and Principals (NTPS), National Education Association (NEA), American Federation of Teachers (AFT), American Teacher Panel (ATP).

Table 2. Primary Measures

Data Source	Primary Measures
Harris Poll	Percent of the public reporting teachers as having very great or considerable prestige
PDK Polls	Percent of parents that would like their child to become a teacher
CIRP	Percent of college freshmen with teaching as their intended career
MTF	Percent of high school seniors that rate working in a school or university as desirable
NCES Surveys of High School Seniors	Percent of high school seniors that expect to be school teachers such as elementary or secondary when thirty years old
IPEDS	Number and percent of Bachelors and Master's degrees in education conferred
HEGIS	Number and percent of Bachelors and Master's degrees in education conferred
Title II	Number and percent of new teacher licenses
NEA Status of the American School Teacher	Percent of teachers that would be willing to teach, if they could go back to their college days
Survey of the American Teacher	Percent of public school teachers that are very satisfied with their job/career (plotted seperately)
SASS/NTPS	Percent of teachers that strongly agree with the statement, "I'm generally satisfied with being a teacher at this school." Percent of teachers that agree with the statement, "The teachers at this school like being here; I would describe us as a satisfied group." Percent of teachers that disagree with the statement, "The stress and disappointments involved in teaching at this school aren't really worth it." Percent of teachers that disagree with the statement, "If I could get a higher paying job I'd leave teaching as soon as possible." Percent of teachers that disagree with the statement, "I don't seem to have as much enthusiasm now as I did when I began teaching." Percent of teachers that disagree with the statement, "If you could go back to your college days and start over again would you become a teacher or not."
ATP	Percent of teachers that disagree with the statement, "I don't seem to have as much enthusiasm now as I did when I began teaching." Percent of teachers that disagree with the statement, "The stress and disappointments involved in teaching at this school aren't really worth it."
AFT Survey	Percent of teachers that are very satisfied with their overall conditions.

Notes: Phi Delta Kappan (PDK), Higher Education Research Institute (HERI), Cooperative Institutional Research Program (CIRP), Monitoring the Future (MTF), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), Higher Education General Information Survey (HEGIS), Schools and Staffing Survey (SASS), The National Survey of Teachers and Principals (NTPS), National Education Association (NEA), American Federation of Teachers (AFT), American Teacher Panel (ATP).

Figures

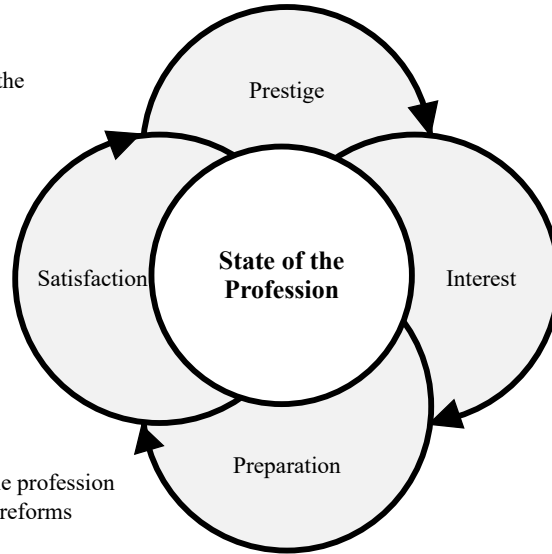
Hypothesized Contextual Influences

Economic Factors

- Outside employment opportunities
- Education funding and the teacher labor market
- Teacher salary
- College costs

Sociopolitical Factors

- Teachers' unions



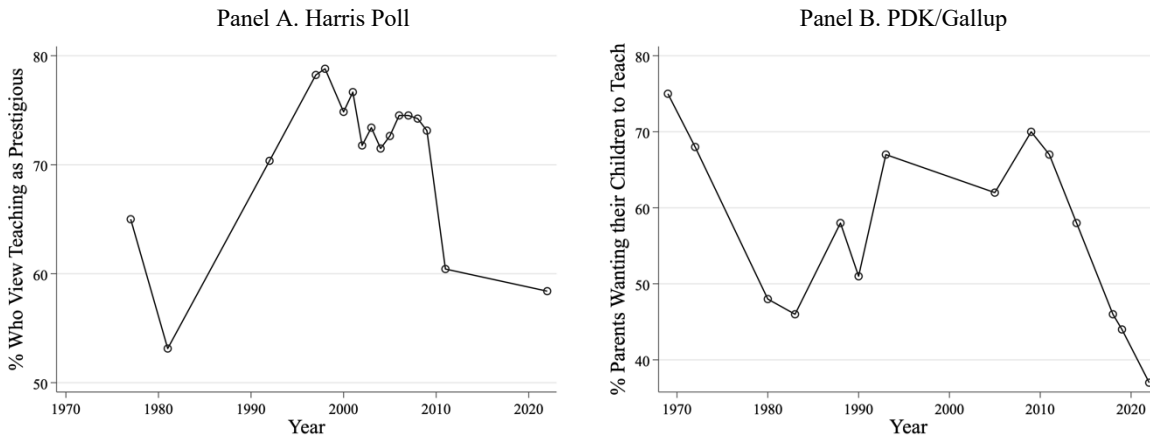
Education Policy

- Barriers to entry into the profession
- Teacher accountability reforms

School Environment

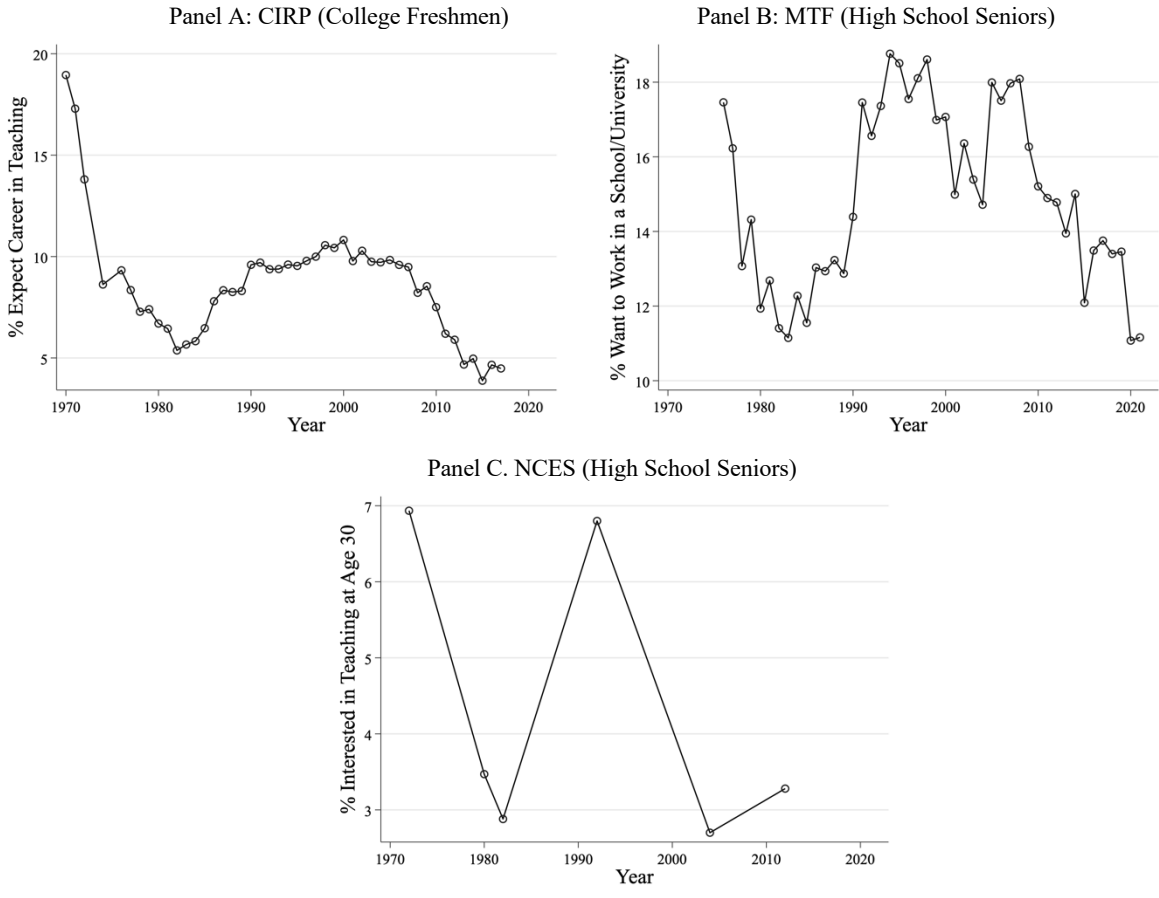
- Working conditions
- Safety

Figure 1. Conceptual Model



Note. Data are from Harris Poll Prestige Ratings and PDK/Gallup Polling of Parent Perceptions.

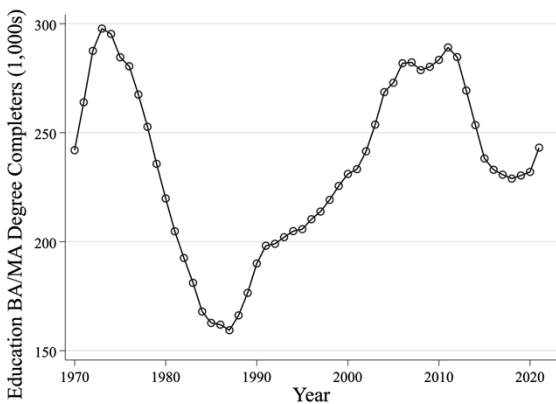
Figure 2. Public Perceptions of Teacher Prestige, 1970-2022



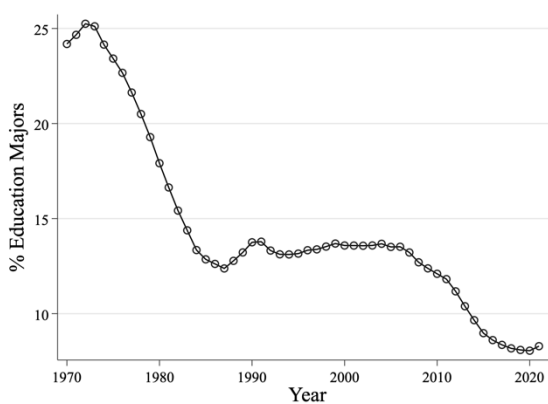
Note. Data are from The CIRP Freshman Survey, Monitoring the Future (MTF), and NCES Surveys of High School Seniors. NCES surveys were open response for the 1982 and 2004 survey administrations.

Figure 3. Student Interest in Teaching, 1970-2021

Panel A: HEGIS/IPEDS (Count)



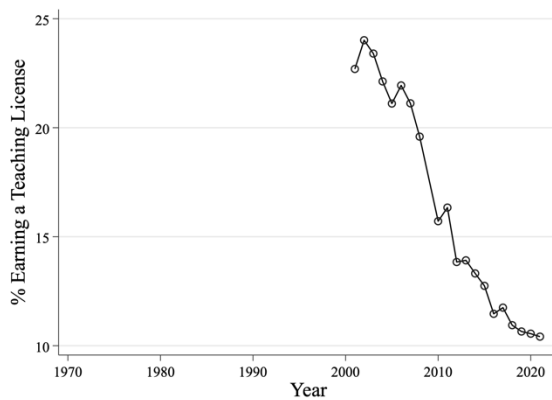
Panel B: HEGIS/IPEDS (Percent of BA/MA Completers)



Panel C: Title II (Count)

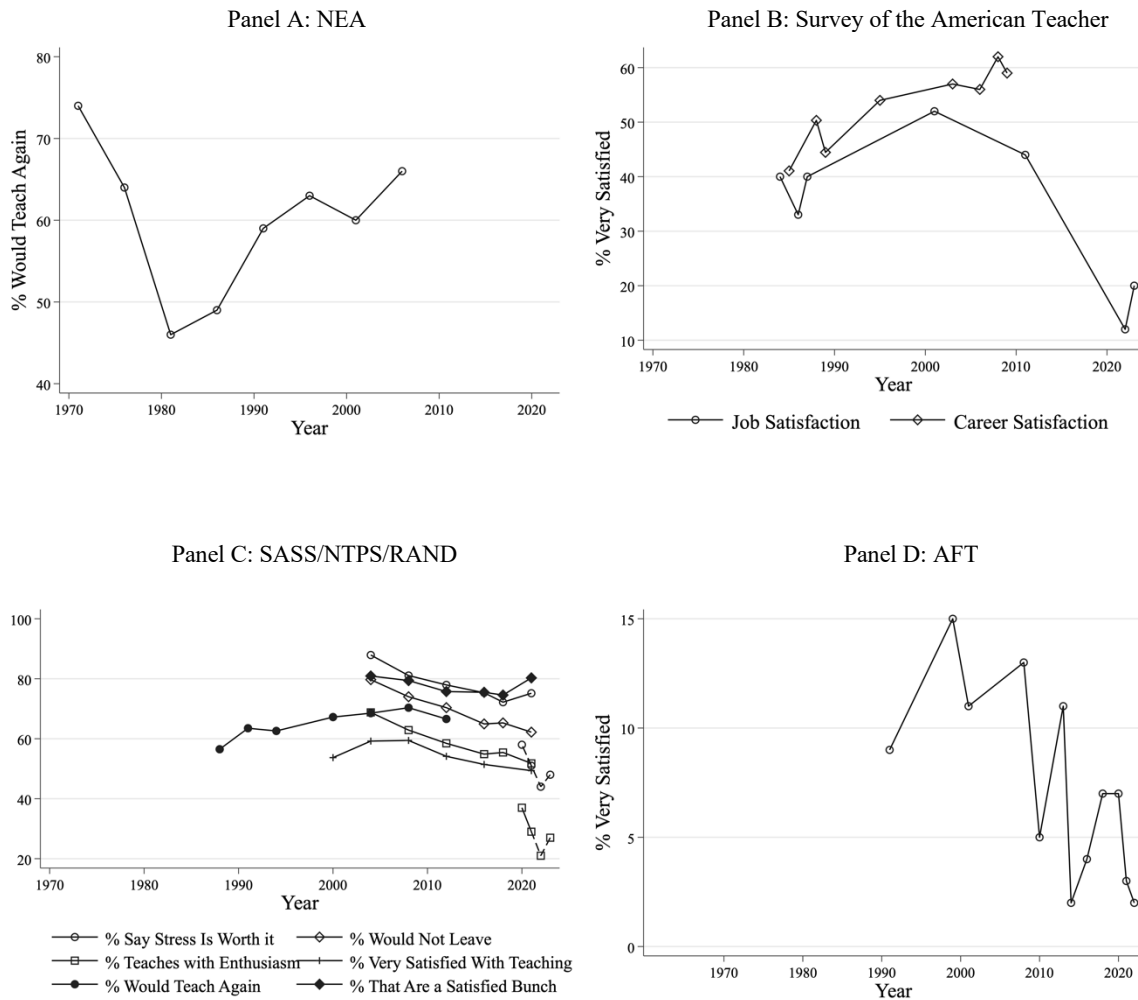


Panel D: Title II (Percent of BA Completers)



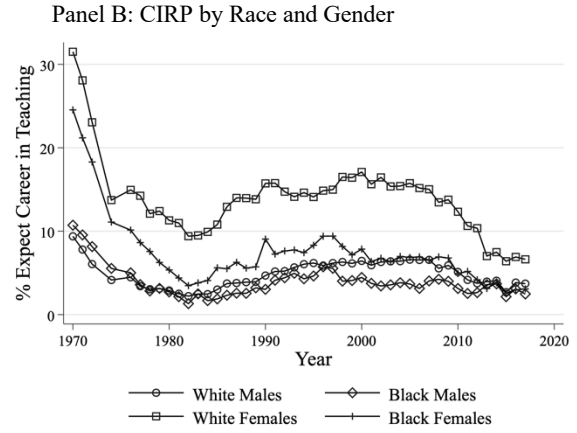
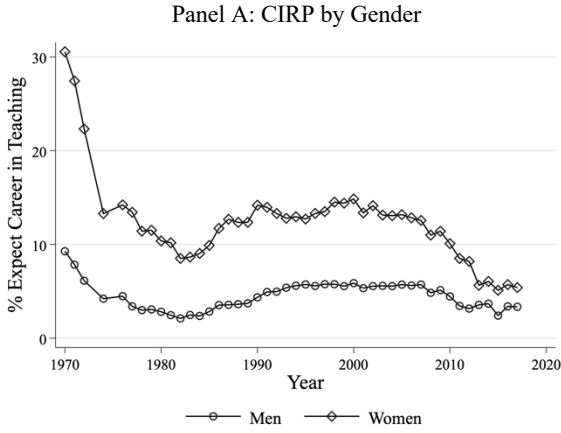
Note. Data are from HEGIS and IPEDS Teacher Degrees Completed and Office of Title II Licensures.

Figure 4. Preparation for Entry into the Teaching Profession, 1970-2021



Note. Data are from the following surveys of teachers: Status of the American School Teacher (Panel A), Survey of the American Teacher (Panel B), Schools and Staffing Survey/National Teacher and Principal Survey (Panel C; solid line), RAND American Teacher Panel (Panel C; dashed line), and American Federation of Teachers Member Survey (Panel D).

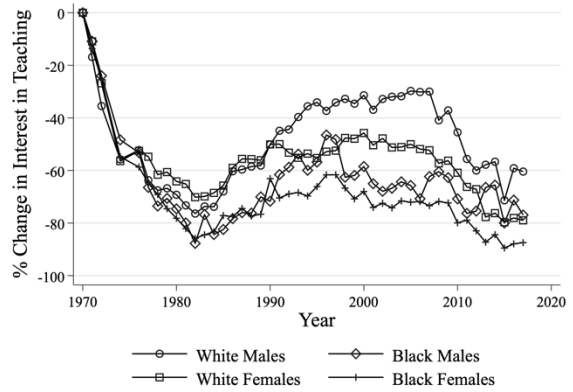
Figure 5. Teacher Job Satisfaction, 1970-2023



Panel C: CIRP by Gender, Relative to 1970

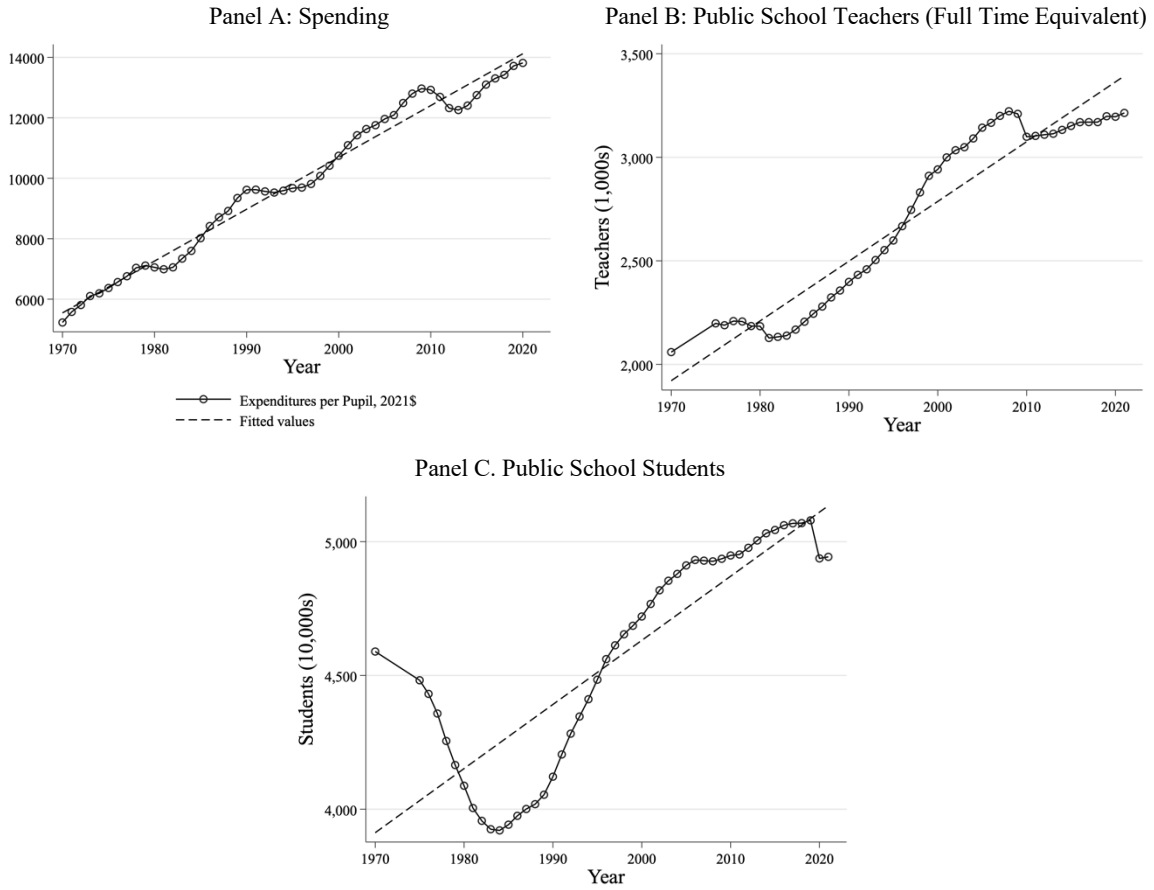


Panel D: CIRP by Race and Gender, Relative to 1970



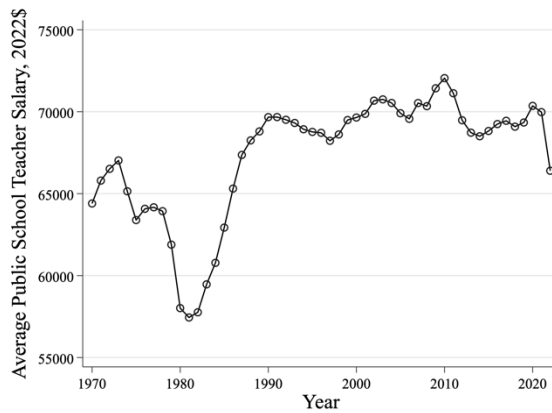
Note. Data are from The CIRP Freshman Survey.

Figure 6. Student Interest in Teaching by Gender and Race, 1970-2017



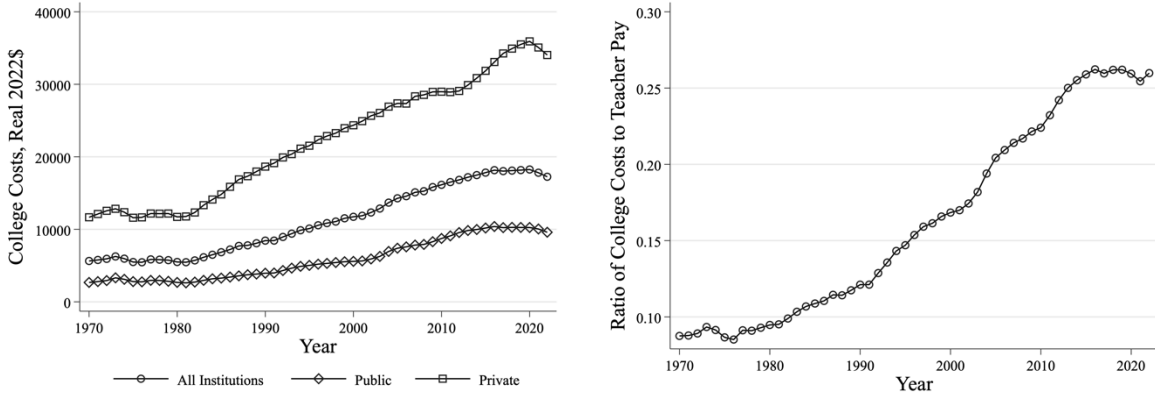
Note. Data are from the Common Core of Data and the Digest of Education Statistics. Dashed lines show the fitted lines.

Figure 7. Education Funding, Teachers, and Students, 1970-2022



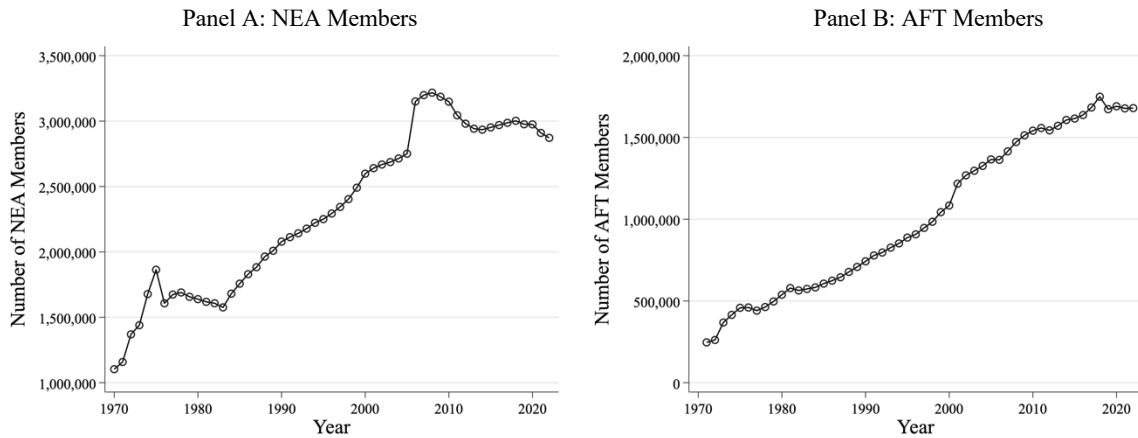
Note. Data are from the National Center for Education Statistics.

Figure 8. Average Public School Teacher Salary in Real Wages, 1970-2022



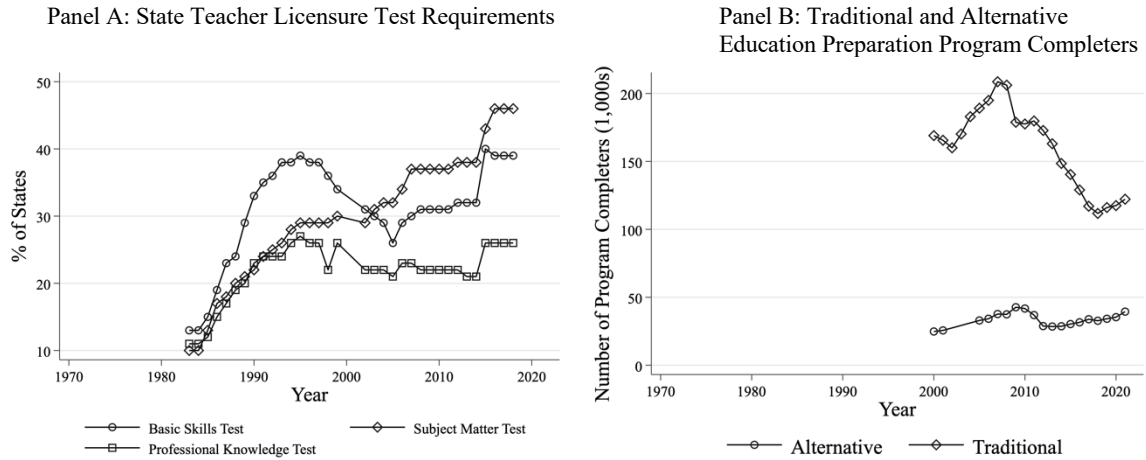
Note. Data are from the National Center for Education Statistics.

Figure 9. Average Cost of Tuition and Fees at Four-Year Undergraduate Institutions and Ratio with Average Public Teacher Salary, 1970-2022



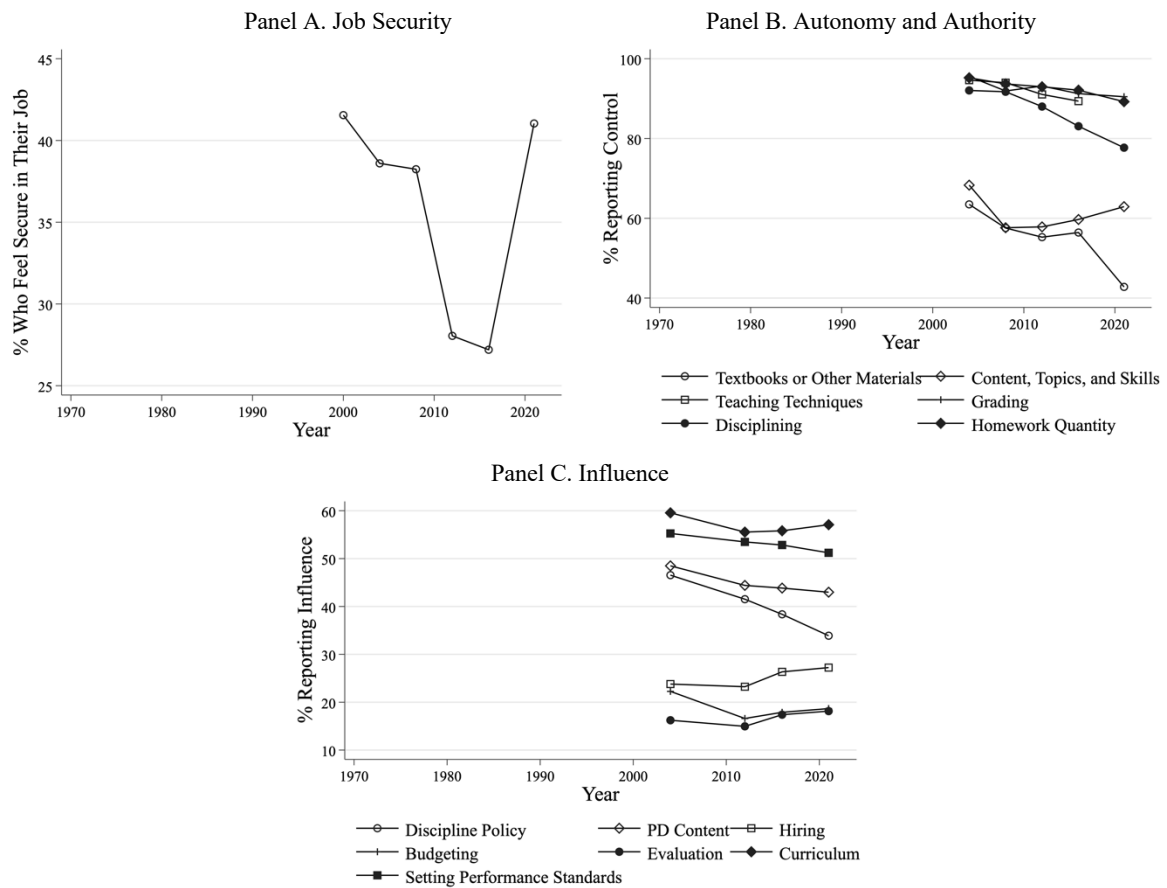
Note. Data are from the National Education Association Handbooks and personal communication with the Office of Secretary Treasurer at the American Federation of Teachers.

Figure 10. Teacher Union Membership, 1970-2022



Note. Data are from Larsen (2014), the National Center for Education Statistics, and the Office of Title II Program Completers.

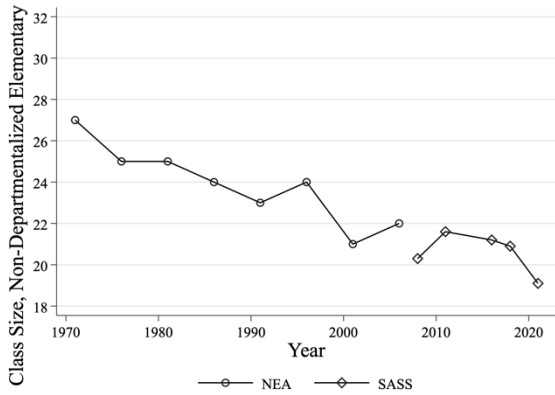
Figure 11. Barriers to Entry into the Teaching Profession, 1970-2021



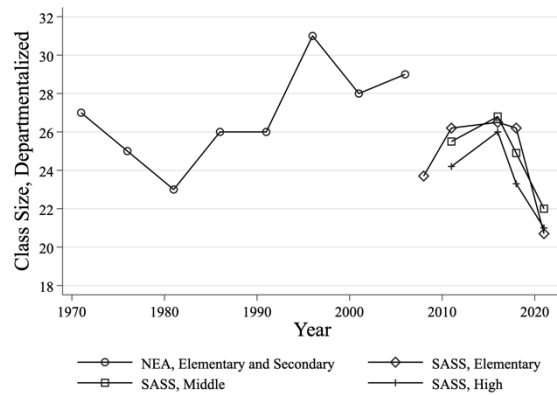
Note. Data are from the teacher surveys in the Schools and Staffing Survey/National Teacher and Principal Survey. We omit data from earlier SASS survey waves because of substantial differences in survey item language and/or response scale options.

Figure 12. Teacher Professionalism, 2001-2021

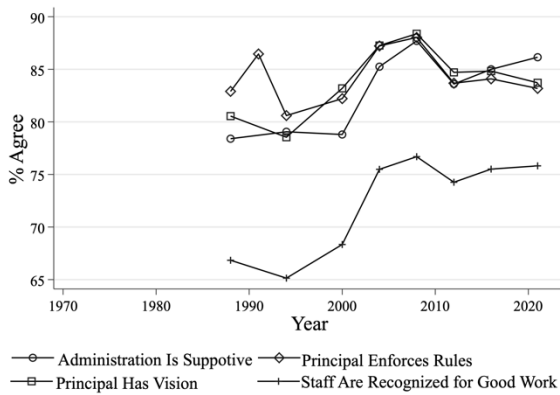
Panel A: Non-Departmentalized Elementary Classes



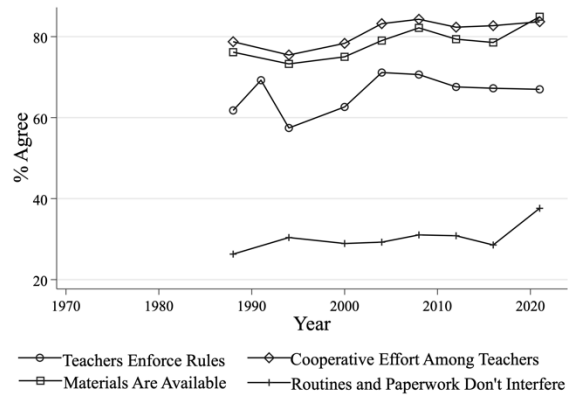
Panel B: Departmentalized Classes



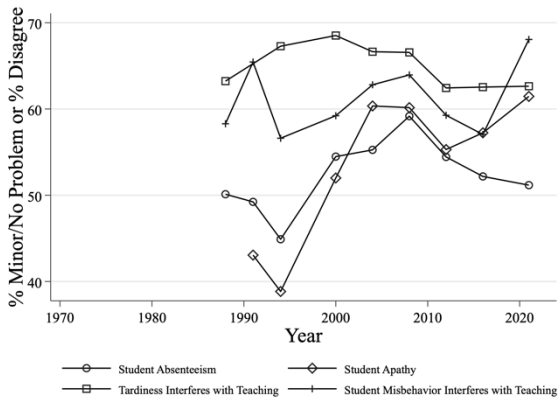
Panel C: Leadership



Panel D: Colleagues, Time, and Resources

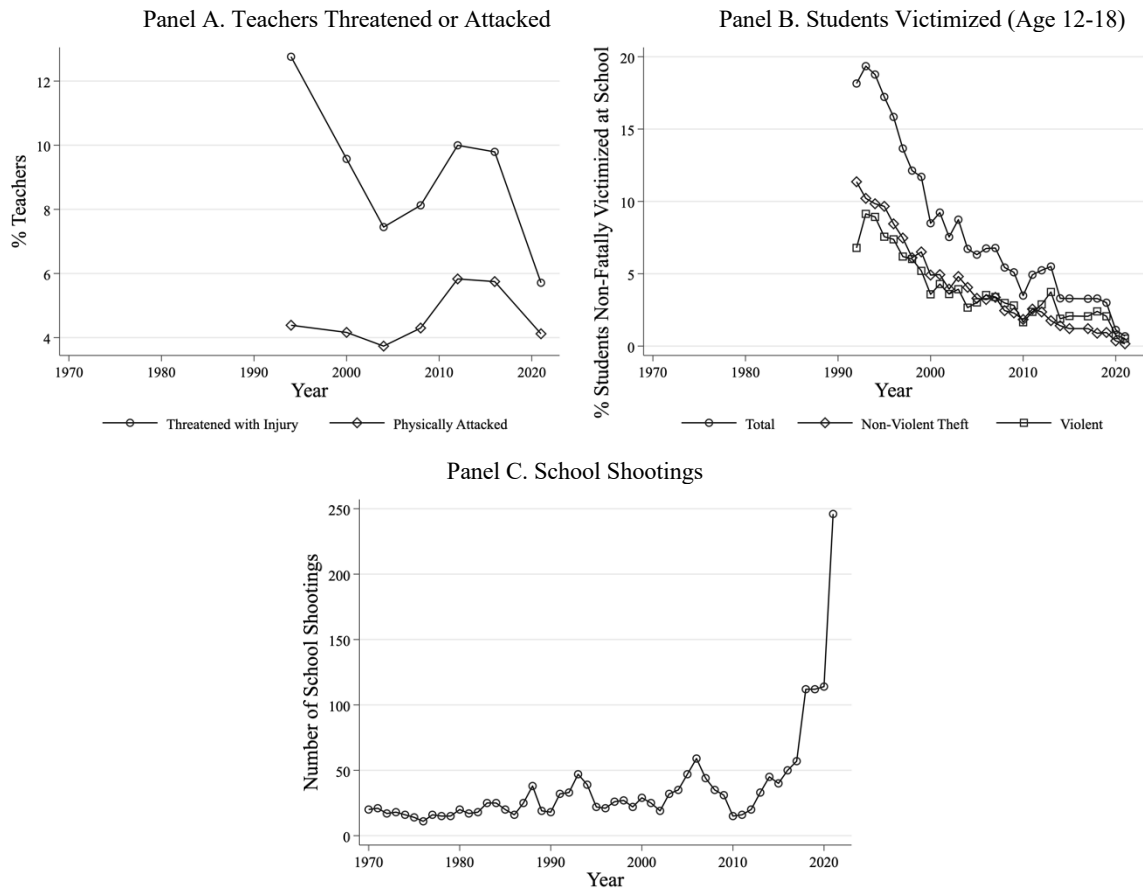


Panel E: School Behavioral Climate



Note. Data are from the National Education Association and teacher surveys from the Schools and Staffing Survey/National Teacher and Principal Survey. We reverse code the “Routine duties and paperwork interfere with my job of teaching” item in Panel D so that it has the same positive valence as other items.

Figure 13. Teacher Working Conditions, 1988-2021



Note. Data are from the Schools and Staffing Survey/National Teacher and Principal Survey, Digest of Education Statistics Reports from the National Crime Victimization Survey, and Center for Homeland Defense and Security at the Naval Postgraduate School.

Figure 14. School Safety, 1970-2022

Appendix A. Appendix Tables and Figures

Table A1. Primary Measures

Data Source	Measure	Time Range	Response Scale	Coding
Panel A. Occupational Prestige				
Harris Poll	“Would you please tell me if you feel it is an occupation of very great prestige, considerable prestige, some prestige, or hardly any prestige at all?” [Teacher]	1977-2022	very great prestige, considerable prestige, some prestige, or hardly any prestige at all	% very great prestige or considerable prestige
PDK Polls	“Would you like to have a child of yours take up teaching in the public schools as a career?”	1970-2022	yes, no	% yes
Panel B. Student Interest in Becoming a Teacher				
CIRP	Intended Career	1970-2017	series of occupations	% elementary or secondary school teacher
MTF	Rate working in "a school or university."	1976-2021	not at all acceptable, somewhat acceptable, acceptable, desirable	% desirable
NCES Surveys of High School Seniors	"What kind of work will you be doing when you are 30 years old?"	1972-2012	series of occupations or write in	% school teacher such as elementary or secondary
Panel C. The Number of Individuals Preparing to Become Teachers				
IPEDS	Bachelors and Master's degrees in education conferred; all degrees conferred	1986-2021	n/a	count and % receiving education degrees
HEGIS	Bachelors and Master's degrees in education conferred; all degrees conferred	1970-1985	n/a	count and % receiving education degrees
Title II	States and jurisdictions submit State Report Cards reporting the number of new teacher licenses to the U.S. Department of Education annually.	2000-2021	n/a	count and % of BAs earning a teaching license
Panel D. Job Satisfaction				
NEA Status of the American School Teacher	“Willingness to teach again”	1970-2006	certainly would, probably would, chances about even for and against, probably would not, and certainly would not	% certainly or probably would teach again
Survey of the American Teacher	“All in all, how satisfied would you say you are with your job as a teacher in the public schools?”	2012, 2011, 2001, 1987, 1986, 1984	very satisfied, somewhat satisfied,	% very satisfied

	"All in all, how satisfied would you say you are with your job?"	2022, 2023	somewhat dissatisfied, very dissatisfied	% very satisfied
	"All in all, how satisfied would you say you are with teaching as a career?"	2009, 2008, 2006, 2003, 1995, 1989, 1988, 1985		% very satisfied
SASS/NTPS	"I'm generally satisfied with being a teacher at this school."	2000-2021	StA, SA, SD, StD*	% StA
	"The teachers at this school like being here; I would describe us as a satisfied group."	2004-2021		% SA or StA
	"The stress and disappointments involved in teaching at this school aren't really worth it."	2004-2021		% SD or StD
	"If I could get a higher paying job I'd leave teaching as soon as possible."	2004-2021		% SD or StD
	"I don't seem to have as much enthusiasm now as I did when I began teaching."	2004-2021		% SD or StD
	"If you could go back to your college days and start over again would you become a teacher or not."	1988-2012	certainly would, probably would, about even, probably would not, certainly would not	% certainly or probably would teach again
ATP	I don't seem to have as much enthusiasm now as I did when I began teaching."	2021-2023	StA, SA, SD, StD	% SD or StD
	"The stress and disappointments involved in teaching at this school aren't really worth it."	2021-2023		% SD or StD
AFT Survey	"How satisfied are you with your overall conditions?"	1991-2022	very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied**	% very satisfied

Notes: Strongly agree (StA), somewhat agree (SA), somewhat disagree (SD), strongly disagree (StD), Phi Delta Kappan (PDK), Higher Education Research Institute (HERI), Cooperative Institutional Research Program (CIRP), Monitoring the Future (MTF), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), Higher Education General Information Survey (HEGIS), Schools and Staffing Survey (SASS), The National Survey of Teachers and Principals (NTPS), National Education Association (NEA), American Federation of Teachers (AFT), American Teacher Panel (ATP). *Scale was modified slightly in 2003-4, to "strongly agree, agree, disagree strongly disagree." **Scale was modified between 1991-2014 to very satisfied, fairly satisfied, just somewhat satisfied, not that satisfied.

Table A2. Measures for Hypotheses

Data Source	Item (and Subgroup)	Time Range
Panel A. Economic Hypotheses		
CIRP The Freshman Survey	Interest in the teaching profession by race, gender, and their intersections	1970-2017
Digest	Average total expenditure per pupil converted to 2021\$	1970-2022
Digest	Number of Public School Teachers (Full Time Equivalent)	1970-2022
Digest	Number of Public School Students	1970-2022
Digest	Public school teacher salaries in 2022\$	1970-2022
Digest	Public and private four-year university tuition and fees	1970-2022
Panel B. Sociopolitical Hypotheses		
NEA Membership	Count of NEA Members	1970-2022
AFT Membership	Count of AFT Members	1970-2022
Panel C. Educational Policy Hypotheses		
Larsen (2014)	the number of states that required teachers to pass: 1) a basic skills test, 2) a subject-specific test, and 3) professional content knowledge test	1983-1990
Digest	the number of states that required teachers to pass: 1) a basic skills test, 2) a subject-specific test, and 3) professional content knowledge test	1990-2018
Title II	Traditional and alternative education preparation program completers	2000-2021
SASS/NTPS	"How much actual control do you have IN YOUR CLASSROOM at this school over the following areas of your planning and teaching?" 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 6. Determining the amount of homework to be assigned (% moderate control or a great deal of control) "At this school how much actual influence do you think teachers have over school policy in each of the areas below?" 1. Setting performance standards for students at this school 2. Establishing curriculum 3. Determining content of in-service professional development programs 4. Evaluating teachers 5. Hiring new full-time teachers 6. Setting discipline policy 7. Deciding how the school budget will be spent (% moderate influence or a great deal of influence)	2004-2021
SASS/NTPS	7. Deciding how the school budget will be spent (% moderate influence or a great deal of influence)	2004-2021
SASS/NTPS	"I worry about the security of my job because of the performance of my students on state and/or local tests." (% StD)	2000-2021
Panel D. School Environment Hypotheses		
Digest	Class Size Average class size from Schools and Staffing Survey	2008-2021
Status of the American School Teacher	Class Size Average class size	1971-2006
SASS/NTPS	Leadership "The school administration's behavior toward the staff is supportive and encouraging" (% SA or StA)	1988-2021
SASS/NTPS	Leadership "My principal enforces school rules for student conduct and backs me up when I need it" (% SA or StA)	1988-2021

SASS/NTPS	Leadership	“The principal knows what kind of school he or she wants and has communicated it to the staff.” (% SA or StA)	1988-2021
SASS/NTPS	Leadership	“In this school, staff members are recognized for a job well done.” (% SA or StA)	1988-2021
SASS/NTPS	CTR	“Rules for student behavior are consistently enforced by teachers in this school, even for students who are not in their classes.” (% SA or StA)	1988-2021
SASS/NTPS	CTR	“There is a great deal of cooperative effort among the staff members.” (% SA or StA)	1988-2021
SASS/NTPS	CTR	“Necessary materials such as textbooks, supplies, and copy machines are available as needed by the staff.” (% SA or StA)	1988-2021
SASS/NTPS	CTR	“Routine duties and paperwork interfere with my job of teaching” (% SD or StD; reverse coded)	1988-2021
SASS/NTPS	SBC	"To what extent is each of the following a problem in this school...student absenteeism?" (% minor problem or not a problem)	1988-2021
SASS/NTPS	SBC	"To what extent is each of the following a problem in this school...student apathy?" (% minor problem or not a problem)	1988-2021
SASS/NTPS	SBC	"The amount of student tardiness and class cutting in this school interferes with my teaching." (% SD or StD)	1988-2021
SASS/NTPS	SBC	"The level of student misbehavior in this school (such as noise, horseplay or fighting in the halls, cafeteria, or student lounge) interferes with my teaching." (% SD or StD)	1988-2021
SASS/NTPS	Safety	“Has a student FROM THIS SCHOOL threatened to injure you IN THE PAST 12 MONTHS?”	1994-2021
SASS/NTPS	Safety	“Has a student FROM THIS SCHOOL physically attacked you IN THE PAST 12 MONTHS?”	1994-2021
Digest	Safety	Number of nonfatal victimizations against students ages 12-18 and rate of victimization per 1,000 students, by type of victimization and location: 1992 through 2021, from the National Crime Victimization Survey	1992-2021
Shooting Incidents	Safety	Objective record of shootings incidents	1970-2022

Notes: Strongly agree (StA), somewhat agree (SA), strongly disagree (StD). Colleagues, Time and Resources (CTR), Student Behavioral Climate (SBC), Cooperative Institutional Research Program (CIRP), Schools and Staffing Survey (SASS), The National Survey of Teachers and Principals (NTPS), National Education Association (NEA), American Federation of Teachers (AFT). Digest refers to the Digest of Education Statistics.

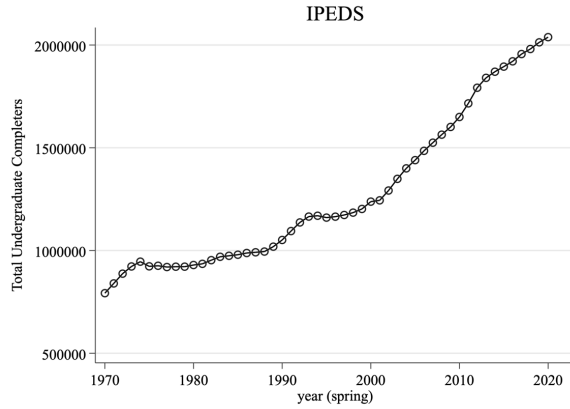
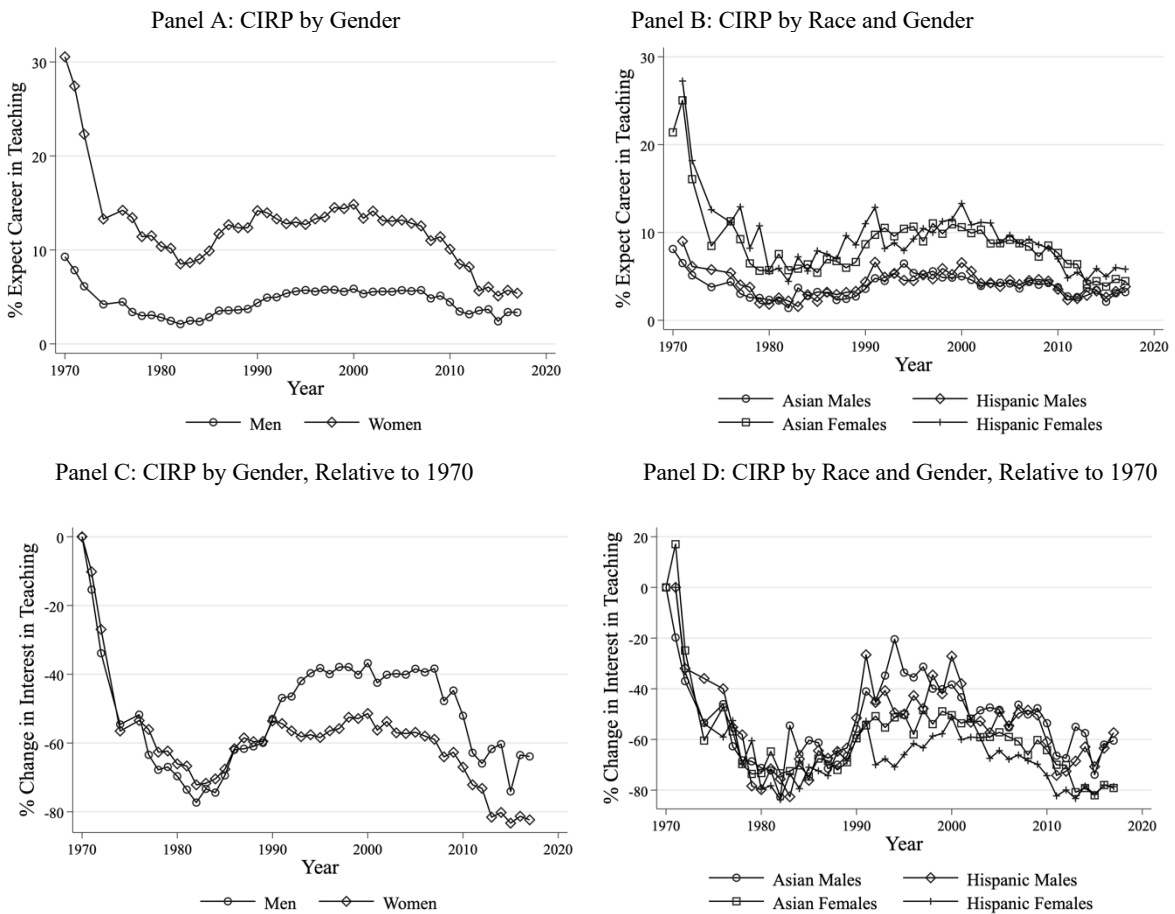


Figure A1. Total Number of Undergraduate Degree Completers, 1970-2020



Note. Data are from The CIRP Freshman Survey. Data is not available for Hispanic students in 1970, so the percent change is relative to 1971.

Figure A2. Student Interest in Teaching by Gender and Race, 1970-2017

Appendix B. Descriptions of Primary Data Sources

Harris Poll Prestige Ratings (Prestige)

Harris Interactive is a polling firm that administers surveys to nationally representative samples of adults. For nearly each year between 1977 and 2011, they included a question for which they read off a list of different occupations including “teacher” and asked respondents, “would you please tell me if you feel it is an occupation of very great prestige, considerable prestige, some prestige, or hardly any prestige at all?” We commissioned Harris to conduct another administration of this question in July of 2022. We construct a variable that captures the percent of respondents that said that teachers have either “very great prestige” or “considerable prestige” as a measure of public perceptions about the occupational prestige of teachers.

PDK/Gallup Polling of Parent Perceptions (Prestige)

PDK is a professional organization for educators that conducts representative polling on American public attitudes about schooling in affiliation with Gallup. Between 1970 and 2022, they have polled 13 nationally representative samples of adults, oversampling parents as a focal subgroup of interest. One question they ask parents is, “Would you like to have a child of yours take up teaching in the public schools as a career?” with a “yes” or “no” answer choice. We use PDK public reports of the percent of parents that affirm that they would like their child to take up teaching in the public schools as a career as a second measure of teachers’ occupational prestige.

The CIRP Freshman Survey (Interest)

CIRP is a national longitudinal study of the American higher education system administered by The Higher Education Research Institute (HERI). Between 1970 and 2017, the CIRP Freshman Survey has provided annual data on incoming college students’ probable careers, as well as their background experiences and characteristics. The Freshman Survey

sample includes between 200,000 and 415,000 respondents per year, with weights to make the sample nationally representative. We construct a measure of the percent of first year college students that choose either “Elementary School Teacher” or “Secondary School Teacher” as their probable career from a list of over 30 career options.

Monitoring the Future (Interest)

Monitoring The Future (MTF) is an ongoing study of American adolescents administered by The University of Michigan Survey Research Center. The annual survey has collected responses from roughly 16,000 high school seniors across 133 public and private schools from 1976 to 2020. One item asks students to rate several different settings as places to work on a four-point Likert scale from “not at all acceptable” to “desirable.” We construct a measure of student interest in teaching from the percent of students that view working in “a school or university” as “desirable.”

NCES Surveys of High School Seniors (Interest)

The National Center for Education Statistics (NCES) is a federally funded entity housed within the Institute of Education Sciences that sponsors and oversees education research in the U.S. NCES supports a range of large-scale data collection efforts on nationally representative samples of high school students. Many of these surveys include consistent questions across cohorts allowing us to construct a time series that compares responses across survey samples. We use a measure that asks students to state the kind of work they expect to be doing when they are 30 years old. This question was asked of high school seniors in the National Longitudinal Study of 1972, High School and Beyond in 1980 and 1982, the National Education Longitudinal Study in 1992, the Education Longitudinal Study in 2004, and the High School Longitudinal

Study in 2012. We use the percent of students reporting that they expect to be a “school teacher, such as elementary or secondary,” as a measure of student interest in teaching.

HEGIS and IPEDS Teacher Degrees Completed (Preparation)

NCES also collects data from all postsecondary institutions eligible for federal student aid in the U.S. as part of the Higher Education General Information Survey (HEGIS) and the Integrated Postsecondary Education Data System (IPEDS). The HEGIS data span from 1970 to 1985 with the IPEDS data continuing from 1986 to 2020. Together, these datasets capture the universe of people enrolling in and graduating from postsecondary educational institutions in the U.S. We use these data to construct two parallel measures to examine trends in teacher preparation. Our first measure is a simple count of the number of individuals who have graduated with Bachelor’s or Master’s degrees in education. However, because overall college enrollment rates have doubled in the last three decades from roughly one to two million (see Appendix Figure A1), we also construct a measure of the proportion of all Bachelor’s and Master’s degree completers who earned a degree in education. This illustrates how the number of education degree completers can be going up at the same time as the percentage of college students who graduate from education programs is going down.

Office of Title II Licensures (Preparation)

The Office of Title II in the U.S. Department of Education collects comprehensive information on new public-school teacher licenses awarded each year. These licensure data are available annually from 2000 to 2020 and capture all new teachers eligible to work in publicly funded schools (traditional or charter), regardless of certification pathway or licensure type. The range of licenses include professional certifications granted to graduates of traditional preparation programs, initial certifications granted to graduates of alternative pathway programs,

and temporary licenses such as emergency, probationary, or intern credentials. We use the count of total teaching licenses awarded and a parallel measure of the percent of Bachelor's degree completers in each year that earn a teaching license as measures of teacher preparation.

Status of the American School Teacher (Satisfaction)

We construct our first measure of teachers' satisfaction with their jobs using data collected by the National Education Association (NEA), the largest teachers' union in the U.S. The NEA's research division began conducting surveys of public-school teachers in 1956 and continued through 2006. They administered their survey roughly every five years to a sample of both union and nonunion members with a two-stage sample design stratified based on district size. Between 1961 and 2006, the surveys asked teachers about their willingness to become teachers if they had to make the choice again with five potential responses, ranging from "certainly would," to "certainly would not." We construct our measure of teacher satisfaction as the percent that "certainly would" or "probably would" teach again.

Survey of the American Teacher (Satisfaction)

MetLife is an insurance and employee benefits provider that commissions Harris Interactive to conduct the Survey of the American Teacher. The survey explores teachers' opinions on a specific theme and related topics, using a nationally representative sample of teachers. In almost every year between 1984 and 2012, they asked teachers about their satisfaction with teaching. The question wording changed slightly over time. In 1985, 1988, 1995, 2003, 2006, 2008-9, they asked "All in all, how satisfied would you say you are with teaching as a career?" In 1984, 1986-7, 2001, and 2011-12, they asked, "All in all, how satisfied would you say you are with your job as a teacher in the public schools?" Then, in 2022, journalists at EdWeek commissioned a survey of public school teachers which included an

abbreviated version of this job-focused question, “All in all, how satisfied are you with your job?” The answer choices remained consistent over time with a four-point Likert scale ranging from “very dissatisfied” to “very satisfied.” We use the percent of teachers that report being “very satisfied” with teaching from both the MetLife and EdWeek surveys as an additional measure of teacher satisfaction, plotting trends in the response patterns for the two questions stems separately to account for the slight changes in item wording used over time.

Schools and Staffing Survey/National Teacher and Principal Survey (Satisfaction)

We construct a third panel of data on teacher satisfaction using the Schools and Staffing Survey (SASS) and the National Teacher and Principal Survey (NTPS). These surveys of nationally representative samples of public and private school teachers administered roughly every four years starting in 1987 provide descriptive data on the context of K-12 education. We plot trends across six items that capture elements of public-school teachers’ job satisfaction. Five of these items ask teachers to respond to a statement on a four-point Likert scale from “strongly disagree” to “strongly agree.” We plot the percent who “strongly agree” with the statement, “I am generally satisfied with being a teacher,” and the percent who “somewhat” or “strongly agree” with the other positive statement, “The teachers at this school like being here; I would describe us as a satisfied group.” We plot the percent who “somewhat” or “strongly disagree” with three negative statements (1) “The stress and disappointments involved in teaching at this school aren't really worth it,” (2) “If I could get a higher paying job I’d leave teaching as soon as possible,” and (3) “I don’t seem to have as much enthusiasm now as I did when I began teaching.” The final item we use is a question asking teachers whether they would “become a teacher or not” if they could “go back to [their] college days and start over again” on a five-point Likert scale ranging from “certainly would” to “certainly would not.” We report the percent that

“probably” or “certainly would” teach again. Across all items, we are careful to only report responses for those year in which the items used identical response scales.

RAND American Teacher Panel (Satisfaction)

The RAND Corporation launched the American Teacher Panel (ATP) in 2014 as part of a suite of nationally representative surveys. RAND recruits a standing group of panel respondents among K-12 public school teachers who participate in these online surveys and applies appropriate sampling weights to generate national estimates. We draw on the 2020-2023 ATP surveys that included the following, longstanding items used on the SASS/NTPS: “The stress and disappointments involved in teaching at this school aren't really worth it,” and “I don’t seem to have as much enthusiasm now as I did when I began teaching.” We use data from these identical items and response anchors to extend the SASS/NTPS time series to 2023.

American Federation of Teachers Member Survey (Satisfaction)

The American Federation of Teachers (AFT) is the second largest teachers’ union in the U.S. The AFT research division has conducted member surveys since 1991, asking a sample of teachers about their job satisfaction at least 12 times between 1991 and 2022. The AFT member sample is similar to the U.S. teacher workforce in terms of urbanicity (44% suburban, 30% urban, 26% small town/rural). The sample is, however, heavily concentrated in the Northeast (45%) and largely comprised of middle-aged members (members between 40-54 years old are 43% of the sample; members 55 or older are 30%). We measure teacher job satisfaction with the percent of respondents that chose "very satisfied" on a four-point Likert scale when answering the question, "How satisfied are you with your overall conditions?"

Appendix C. Data Summaries

Harris Poll

Link: <https://theharrispoll.com/>

Description: National public opinion surveys

Target Sample: Nationally representative sample of adults 18 years or older in the United States

Sample Size: The sample size typically ranges from 1,200-2,200 respondents.

Data Range & Frequency: Annually 1977-2011, 2022*

Description of Survey/Item: Occupational prestige ranking: They present a list of occupations and asked how much prestige each job possesses on a 4 point Likert scale. We use whether the respondent answers that the teaching profession "has very great prestige" or "has considerable prestige."

Specific Item(s): "I am going to read off a number of different occupations. For each, would you please tell me if you feel it is an occupation of very great prestige, considerable prestige, some prestige, or hardly any prestige at all?... Teacher"

Response Options:

- Very great prestige
- Considerable prestige
- Some prestige
- Hardly any prestige at all

Measure: We construct a variable that captures the percent of respondents that said that teachers have either "very great prestige" or "considerable prestige" as a measure of public perceptions about the occupational prestige of teachers.

Data Access: We accessed public data from the Odum Institute Archive Dataverse. For missing years, we emailed the staff at Harris International directly. We also commissioned a new survey in 2022.

*NOTE: We omit items in 2014 and 2015 because of changes to the item wording.

PDK Poll

Link: <https://pdkpoll.org/>

Description: Representative polling on American public attitudes among a random sample of adults.

Target Sample: General population of adults in the United States

Sample Size: About 1,000.

Data Range & Frequency: 1970-2018 (1969, 1972, 1980, 1981, 1983, 1988, 1993, 2005, 2009, 2011, 2014, 2018, 2022)

Description of Survey/Item: They ask parents about their desire for their child to teach.

Specific Item(s): "Would you like to have a child of yours take up teaching in the public schools as a career?"

Response Options:

- Yes
- No

Measure: We use PDK public reports of the percent of parents that affirm that they would like their child to take up teaching in the public schools as a career as a second measure of teachers' occupational prestige.

Data Access: We use data compiled and reported in the 2018 PDK Report, "Teaching: Respect but dwindling appeal" https://pdkpoll.org/wp-content/uploads/2020/05/pdkpoll50_2018.pdf

Cooperative Institutional Research Program (CIRP) The Freshman Survey

Link: <https://heri.ucla.edu/cirp-freshman-survey/>

Description: For over 50 years, the CIRP Freshman Survey (TFS) has provided data on incoming college students' background characteristics, high school experiences, attitudes, behaviors, and expectations for college.

Target Sample: First year college students at participating universities

Sample Size: Between 200,000 and 415,000 respondents per year

Data Range & Frequency: Annually 1970-2017

Description of Survey/Item: They ask first year college students about their probable career. We focus on the percent that choose teaching as their probable career.

Specific Item(s): "Please indicate your intended career."

Response Options:

- "Elementary School Teacher"
- "Secondary School Teacher"
- Other Vocations . . .

Measure: We construct a measure capturing the percent of first year college students that choose either "Elementary School Teacher" or "Secondary School Teacher" as their probable career from a list of over 30 career options.

Data Access: For the years 1966-2008 we accessed public data through the HERI Data Archives (<https://heri.ucla.edu/heri-data-archive/>). For the years 2009-2017, we requested and received restricted data from HERI.

Monitoring the Future (MTF)

Link: <http://monitoringthefuture.org/>

Description: The Monitoring the Future survey explores the changes in important values, behaviors, and lifestyle orientations of American youth. We use the surveys of 12th grade students.

Target Sample: All 12th grade students (public and private schools)

Sample Size: Roughly 16,000 students in approximately 133 public and private high schools nationwide participate.

Data Range & Frequency: Annually 1976-2019

Description of Survey/Item: Percent of students that want to be working in a school or university.

Specific Item(s): "Apart from the particular kind of work you want to do, how would you rate each of the following settings as a place to work?... Working in a school or university."

Response Options:

- "Not at all acceptable"
- "Somewhat acceptable"
- "Acceptable"
- "Desirable"

Measure: The percent of students that rated working in a school or university as "desirable."

Data Access: Public data accessed through ICPSR:
<https://www.icpsr.umich.edu/web/NAHDAP/series/35>

National Center for Education Statistics (NCES) Surveys of High School Seniors

Link: <https://nces.ed.gov/surveys/nls72/>

Description: This is a series of nationally representative samples of high school students. There are different survey names over time, but NCES maintains several, intentionally consistent questions across cohorts. We use responses of high school seniors in the National Longitudinal Study of 1972, High School and Beyond in 1980 and 1982, the National Education Longitudinal Study in 1992, the Education Longitudinal Study in 2004, and the High School Longitudinal Study in 2012.

Target Sample: 12th grade students (public and private schools)

Sample Size:

- 1972: 22,652 students
- 1980: approximately 28,000 students
- 1982: approximately 30,000 students
- 1992: 17,192 students
- 2004: 15,905 students
- 2012: 23,018 students
-

Data Range & Frequency: 1972-2012 (1972, 1980, 1982, 1992, 2004, 2012)

Description of Survey/Item: Students expecting to teach

Specific Item(s): "What kind of work will you be doing when you are 30 years old?"

Response Options:

- Students can write or select: "school teachers such as elementary or secondary."

* Surveys in 1982 and 2004 allowed for students to write in responses and were later coded by survey administrators. Other survey years provided a list of at least 15 occupations. When write-ins were accepted, they were coded by the survey administrators.

Measure: We use the percent of students reporting that they expect to be a school teacher, such as elementary or secondary, as a measure of student interest in teaching.

Data Access: Public data accessed through NCES

Integrated Postsecondary Education Data System (IPEDS)

Link: <https://nces.ed.gov/ipeds/>

Description: IPEDS captures the universe of people enrolling and graduating from postsecondary education institutions in the United States.

Target Sample: People enrolling and graduating from postsecondary education

Sample Size: Population

Data Range & Frequency: Annual, 1986-2020

Description of Survey/Item: Undergraduate and MA education degree program completers, as a proportion of all undergraduate degree completers

Specific Item(s): Bachelor's and Master's degrees in education conferred by postsecondary institutions and all degrees conferred by postsecondary institutions.

Measure (1): Simple count of the number of individuals who have graduated with Bachelor's or Master's degrees in education.

Measure (2): Proportion of all Bachelor's and Master's degree completers who earned a degree in education.

Data Access: We use data compiled and published in Tables 318.10 and 325.40 in the NCES Digest of Education Statistics (2020).

Higher Education General Information Survey (HEGIS)

Link: <https://www.icpsr.umich.edu/web/ICPSR/series/30>

Description: The Higher Education General Information Survey (HEGIS) Series, the predecessor to the Integrated Postsecondary Education Data System (IPEDS) Series, was designed to provide comprehensive information on various aspects of postsecondary education.

Target Sample: People graduating from postsecondary education institutions

Sample Size: Population

Data Range & Frequency: Annual, 1970-1985

Description of Survey/Item: Undergraduate and MA education degree program completers, as a proportion of all undergraduate degree completers.

Specific Item(s): Bachelor's and Master's degrees in education conferred by postsecondary institutions and all degrees conferred by postsecondary institutions.

Measure (1): Simple count of the number of individuals who have graduated with Bachelor's or Master's degrees in education.

Measure (2): Proportion of all Bachelor's and Master's degree completers who earned a degree in education.

Data Access: We use data compiled and published in the Chartbook of Degrees Conferred, 1969-70 to 1993-94.

Title II

Link: <https://title2.ed.gov/Public/Home.aspx>

Description: Data collected by the U.S. Department of Education on the number of initial public-school teacher licenses and the number of program completers by state.

Target Sample: Number of licenses

Sample Size: Population

Data Range & Frequency: Annual, 2000-2020

Description of Survey/Item: Total number of teaching licenses awarded.

Specific Item(s): States and jurisdictions submit State Report Cards to the U.S. Department of Education annually.

Measure (1): Count of total teaching licenses awarded

Measure (2): Percent of Bachelor's degree completers in each year that earn a teaching license

Data Access: We retrieved data on the number of initial credentials given by state before the 2019-20 school year by emailing the Westat Support Center at: Title2@westat.com. We accessed 2019-20 data on the public 2021 All States Report Data File on the Title II website.

Schools and Staffing Survey/The National Survey of Teachers and Principals

Link: <https://nces.ed.gov/surveys/sass/dataproducts.asp>

Description: The Schools and Staffing Survey (SASS) was an integrated study of public and private school districts, schools, principals, and teachers designed to provide descriptive data on the context of elementary and secondary education. After 2010–11, NCES redesigned SASS and named it the National Teacher and Principal Survey (NTPS) to reflect the redesigned study's focus on the teacher and principal labor market and on the state of K-12 school staff. NCES first conducted NTPS in 2015–16.

Target Sample: All K-12 teachers in public schools in the United States

Sample Size: About 45,000 to 60,000

Data Range & Frequency: 1988, 1994, 2000, 2004, 2008, 2012, 2016, 2018, 2021

Description of Survey/Item (1): "I'm generally satisfied with being a teacher at this school"

Response Options (1):

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

Measure (1): We use the percent that "strongly agree."

Description of Survey/Item (2): "The teachers at this school like being here; I would describe us as a satisfied group"

Response Options (2):

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

Measure (2): We use the percent that "strongly agree."

Description of Survey/Item (3): "If you could go back to your college days and start over again, would you become a teacher or not?"

Response Options (3):

- Certainly would
- Probably would
- Chances about even
- Probably would not
- Certainly would not

Measure (3): We use the percent that "certainly would" or "probably would" teach again.

Description of Survey/Item (4): “The stress and disappointments involved in teaching at this school aren’t really worth it.”

Response Options (4):

- Strongly agree
- Somewhat agree (Agree in 2003-04)
- Somewhat disagree (Disagree in 2003-04)
- Strongly disagree

Measure (4): We use the percent that “somewhat disagree” or “strongly disagree.”

Description of Survey/Item (5): “If I could get a higher paying job I’d leave teaching as soon as possible.”

Response Options (5):

- Strongly agree
- Somewhat agree (Agree in 2003-04)
- Somewhat disagree (Disagree in 2003-04)
- Strongly Disagree

Measure (5): We use the percent that “somewhat disagree or “strongly disagree.”

Description of Survey/Item (6): “I don’t seem to have as much enthusiasm now as I did when I began teaching.”

Response Options (6):

- Strongly agree
- Somewhat agree (Agree in 2003-04)
- Somewhat disagree (Disagree in 2003-04)
- Strongly disagree

Measure (6): We use the percent that “somewhat disagree” or “strongly disagree”.

Data Access: We use the DataLab interface on the NCES website (<https://nces.ed.gov/datalab/sass>) to generate means for each of these questions for all public school teachers in each year. We also use the Data Products tab on the NCES website for older surveys (<https://nces.ed.gov/surveys/sass/dataproducts.asp>).

Survey of the American Teacher

Link: <https://www.metlife.com/about-us/newsroom/2012/march/metlife-survey-of-the-american-teacher-finds-decreased-teacher-s/>

Description: The MetLife Survey of the American Teacher, conducted by Harris Interactive, has been published annually since 1984. Designed to give voice to those closest to the classroom, the survey explores teacher’s opinions on a specific theme and related topics and brings them to the attention of educators, policymakers, and the public.

Target Sample: U.S. public school teachers of grades K-12

Sample Size: About 1,000

Data Range & Frequency: Annual, 1984-2012, 2022 (EdWeek)

Description of Survey/Item: The percent of teachers that report being very satisfied with teaching

Specific Item(s): Question text in 2012, 2011, 2001, 1987, 1986, 1984: “All in all, how satisfied would you say you are with your job as a teacher in the public schools?”

Question text in 2009, 2008, 2006, 2003, 1995, 1989, 1988, 1985: “All in all, how satisfied would you say you are with teaching as a career?”

Response Options:

- Very satisfied
- Somewhat satisfied
- Somewhat dissatisfied
- Very dissatisfied

Measure: Percent of teachers that report being “very satisfied” with teaching.

Data Access: For the years 1984-2012, we use data compiled and published in The MetLife Survey of the American Teacher: Challenges for School Leadership 2012 report: <https://files.eric.ed.gov/fulltext/ED542202.pdf>

For 2022, we use the data reported by Madeline Will of EdWeek on their original data collection: <https://www.edweek.org/teaching-learning/teacher-job-satisfaction-hits-an-all-time-low/2022/04>

Status of the American School Teacher

Link: <https://www.nea.org/>

Description: The National Education Association (NEA) Research Division developed a series of surveys and subsequent reports covering various aspects of teachers' professional, family, and civic lives. The NEA has conducted this survey, The Status of the American Public School Teacher, every five years since 1956 to gather up-to-date and trend data on matters of importance to the profession.

Target Sample: All teachers in all public schools in the United States

Sample Size: Between 1,000 to 1,500

Data Range & Frequency: Every 5 years, 1961-2006

Description of Survey/Item: "Willingness to teach again"

Response Options:

- Certainly would
- Probably would
- Chances about even for and against
- Probably would not
- Certainly would not

Measure: We use the percent that "certainly would" or "probably would" teach again.

Data Access: We used longitudinal, aggregate data compiled by the NEA Research Team in the 2005-2006 Report on the Status of the American School Teacher, (Table 48 on page 86):
<https://eric.ed.gov/?id=ED521866>

American Federation of Teachers Survey

Link: www.aft.org

Description: The American Federation of Teachers is the second largest teachers' union in the U.S. The AFT research division has conducted member surveys since 1991. As part of these surveys, they have asked a sample of teachers about their job satisfaction at least 12 times between 1991 and 2022.

Target Sample: AFT members

Sample Size: About 1,000

Data Range & Frequency: 1991-2022 (1991, 1999, 2001, 2008, 2010, 2013, 2014, 2016, 2018, 2020, 2021, 2022)

Description of Survey/Item: They ask teachers about their overall job satisfaction.

Specific Item(s): "How satisfied are you with your overall conditions?"

Response Options:

Answer choices are on a 5-point Likert scale that has changed slightly over time.

- Very satisfied
- Somewhat satisfied (Fairly satisfied 1991-2014)
- Somewhat dissatisfied (Just somewhat satisfied 1991-2014)
- Very dissatisfied (Not that satisfied 1991-2014)
- Not sure

Measure: We use the percent that report being "very satisfied."

Data Access: We use aggregate data emailed to us by members of the AFT Research and Communications Teams (Josh Delacruz Goldberg, Andrew Crook, and Guy Molyneux).

American Teacher Panel

Link: <https://www.rand.org/education-and-labor/projects/aep/about.html>

Description: The RAND Corporation launched the American Teacher Panel (ATP) in 2014 as part of a suite of nationally representative surveys. RAND recruited a standing group of panel respondents among K-12 public school teachers who participate in these online surveys. The surveys oversample teachers in some demographic groups and states to allow for subgroup analyses and apply appropriate sampling weights to generate national estimates.

Target Sample: Consistent panel of K-12 public school teachers.

Sample Size: About 1,000

Data Range & Frequency: Annual, 2020-2023

Description of Survey/Item: We use a measure of job satisfaction that is identical to the question from the SASS/NTPS.

Specific Item(s): “I don’t seem to have as much enthusiasm now as I did when I began teaching.”

“The stress and disappointments involved in teaching at this school aren't really worth it.”

Response Options:

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

Measure: We use the percent that “somewhat disagree” or “strongly disagree”

Data Access: We use summary statistics reported in the State of the American Teacher and State of the American Principal Surveys Technical Documentation and Survey Results from 2020-2023

Digest of Education Statistics

Link: https://nces.ed.gov/programs/digest/d21/tables/dt21_236.15.asp

https://nces.ed.gov/programs/digest/d09/tables/dt09_182.asp

https://nces.ed.gov/programs/digest/d21/tables/dt21_211.50.asp

Description: NCES records per pupil expenditure across the United States via the Common Core of Data. We use: Table 182 from the 2009 Digest of Education Statistics; Table 236.15 from the 2021 Digest of Education Statistics; Table 211.50 from the Digest of Education Statistics.

Target Sample: K-12 public schools.

Sample Size: Population

Data Range & Frequency: Annual, 1970-2021

Description of Measure: Average total expenditure per pupil converted to 2021 dollars by year, Public school teacher salaries in constant 2020-21 dollars.

Data Access: Publicly available online via links above.

NEA Membership

Link: <https://www.nea.org/resource-library/nea-handbook>

Description: Data on National Education Association unionization membership

Target Sample: Universal - full membership data

Sample Size: Population

Data Range & Frequency: Annual, 1970-2018

Description of Measure: Objective record of total membership in the NEA. Total membership includes retirees, students, substitutes and all others.

Data Access: Historical NEA Handbooks held in the library at Columbia University

AFT Membership

Link: <https://www.aft.org/>

Description: Count of American Federation of Teachers union members

Target Sample: Universal - full membership data

Sample Size: Population

Data Range & Frequency: Annual, 1970-2022

Description of Measure: Objective record of total membership, inclusive of retirees.

Data Access: Personal communication with the Office of the Secretary-Treasurer at the American Federation of Teachers

Larsen (2014) & NCES State Licensure Test Requirements

Link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2387096

Description: We merge data from two primary sources; data from 1983-1997 were compiled by Larsen (2014) using a range of original sources, while data from 1998-2018 come from NCES's annual Digests of Educational Statistics, Chapter 2: State Regulations.

Target Sample: 50 U.S. States

Sample Size: Population

Data Range & Frequency (Larsen 2014): 1983-2010, Annual

Data Range & Frequency (NCES): 1990-2018, Annual starting in 1998

Description of Measures: The percent of states with laws requiring public school teachers to pass (1) a basic skills test, (2) a professional knowledge test, and (3) a subject matter test to earn a teaching license.

Data Access: Personal communication with Brad Larson and public data available from NCES

NEA Measures of Class Size

Link: <https://files.eric.ed.gov/fulltext/ED521866.pdf>

Description: Tables 20 and 22 in “Status of the American Public School Teacher: 2005-2006” provide historical data on average class sizes for non-departmentalized elementary teachers and departmentalized teachers (elementary or secondary).

Data Range & Frequency: Every 5 Years, 1971 to 2006

Description of Measure: Average class size

Date Access: Public data through the Institute of Education Sciences (ERIC)

NCES Measures of Class Size

Link:

- https://nces.ed.gov/surveys/sass/tables/sass0708_2009324_t1s_08.asp (2007-2008)
- https://nces.ed.gov/surveys/sass/tables/sass1112_2013314_t1s_007.asp (2011-2012)
- https://nces.ed.gov/surveys/ntps/tables/ntps_7t_051617.asp (2015-2016)
- https://nces.ed.gov/surveys/ntps/tables/ntps1718_flttable06_t1s.asp (2017-2018)

Description: Table created by NCES calculate average class size for four different waves of the SASS/NTPS.

Data Range & Frequency: SASS 2008-2009, 2011-2012; NTPS 2015-2016, 2017-2018

Description of Measure: Average class size

Date Access: Public reports and survey data through NCES

SASS /NTPS Measures of Working Conditions, Autonomy & Job Security

Link: <https://nces.ed.gov/surveys/ntps/>

Description: See Appendix A for full details

Description of Survey/Item (1): “I worry about the security of my job because of the performance of my students on state and/or local tests.”

Response Options (1):

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

Measure (1): We use the percent that “strongly disagree.”

Description of Survey/Item (2): How much actual control do you have IN YOUR CLASSROOM at this school over the following areas of your planning and teaching?

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
6. Determining the amount of homework to be assigned

Response Options (2):

- No control
- Minor control
- Moderate control
- A great deal of control

Measure (2): We use the percent report having “moderate control” or “A great deal of control.”

Description of Survey/Item (3):

"At this school how much actual influence do you think teachers have over school policy in each of the areas below?"

1. Setting performance standards for students at this school
 2. Establishing curriculum
 3. Determining content of in-service professional development programs
 4. Evaluating teachers
 5. Hiring new full-time teachers
 6. Setting discipline policy
 7. Deciding how the school budget will be spent
- (% moderate influence or a great deal of influence)

Response Options (3):

- No influence
- Minor influence
- Moderate influence
- A great deal of influence

Measure (3): We use the percent report having “moderate influence” or “A great deal of influence.”

Description of Survey/Item (4): “The school administration’s behavior toward the staff is supportive and encouraging”

Description of Survey/Item (5): “My principal enforces school rules for student conduct and backs me up when I need it.”

Description of Survey/Item (6): “The principal knows what kind of school he or she wants and has communicated it to the staff.”

Description of Survey/Item (7): “In this school, staff members are recognized for a job well done.”

Description of Survey/Item (8): “Rules for student behavior are consistently enforced by teachers in this school, even for students who are not in their classes.”

Description of Survey/Item (9): “There is a great deal of cooperative effort among the staff members.”

Description of Survey/Item (10): “Necessary materials such as textbooks, supplies, and copy machines are available as needed by the staff.”

Response Options (4)-(10):

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

Measures (4)-(10): We use the percent that “somewhat agree” or “strongly agree.”

Description of Survey/Item (11): “Routine duties and paperwork interfere with my job of teaching”

NOTE: This question is the only working conditions item with a negative valence.

Response Options (11):

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

Measure (11): We use the percent that “somewhat agree” or “strongly agree.”

SASS/NTPS Measures of Teachers Threatened with injury/ Physically attached

Link: https://nces.ed.gov/programs/digest/d22/tables/dt22_228.70.asp

Description: Number and percentage of public-school teachers who reported that they were threatened with injury or physically attacked by a student from school during the previous 12 months by Schools and Staffing Survey (SASS) and National Teacher and Principal Survey (NTPS).

Target Sample: Schools, principals, teachers, districts, and school library media centers

Sample Size: Sufficient numbers for reliable estimates. For example, in 2020-21 NTPs survey, 9,900 public schools and their principals were sampled along with about 68,300 teachers in those schools and 3,000 private schools and their principals were sampled along with about 8,000 teachers in those schools.

Data Range & Frequency: Discontinuous school years. 1993, 1999, 2003, 2007, 2011, 2015, 2020 (Fall semester)

Description of Measure: Responded yes to questions:

“Has a student FROM THIS SCHOOL threatened to injure you IN THE PAST 12 MONTHS?”

Has a student FROM THIS SCHOOL physically attacked you IN THE PAST 12 MONTHS?

Data Access: Digest of Education Statistics, Table 228.70.

**Digest of Education Statistics:
National Crime Victimization Survey**

Link: https://nces.ed.gov/programs/digest/d22/tables/dt22_228.20.asp

Description: Number of nonfatal victimizations against students ages 12-18 and rate of victimization per 1,000 students, by victimization and location (1992 through 2021) by National Crime Victimization Survey (NCVS).

Target Sample: Persons aged 12 or older from a nationally representative sample of households in the United States.

Sample Size: Nationally representative sample of about 240,000 persons in about 150,000 households.

Data Range & Frequency: Continuous through 1992 to 2021, except 2006. Every 10 years, the survey sample is redesigned to reflect changes in the population.

Description of Measure: Number of nonfatal victimizations against students ages 12-18 and rate of victimization per 1,000 students, by victimization and location.

Data Access: Digest of Education Statistics, Table 228.20.

Shooting Incidents Records

Link: <https://www.chds.us/ssdb/>

Description: Shooting Incidents Records within Schools maintained by Center of Homeland Defense and Security

Target Sample: Objective universal record

Sample Size: Population

Data Range & Frequency: Annual, 1970-Present

Description of Measure: Objective record of shootings incidents

Data Access: Used public data via CHDS