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Teacher working conditions in urban charter and traditional public schools: Before, during, and after the pandemic disruptions

J.R. Funk
University of Missouri

Cory Koedel
University of Missouri

Tuan D. Nguyen
University of Missouri

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Teacher working conditions in urban charter and traditional public schools: Before, during, and after the pandemic disruptions

J.R. Funk*, Cory Koedel*, and Tuan D. Nguyen*~

University of Missouri

*Equal contribution

~Corresponding author: tuan.nguyen@missouri.edu

Abstract

We use rich data from the 5Essentials Survey in Illinois to document how teacher working conditions differ between observationally similar urban charter and traditional public schools. Our data cover the 2017-18 to 2023-24 school years, spanning the period before, during, and after the COVID pandemic. We find working conditions were generally more favorable in traditional public schools before the pandemic, with large differences along some dimensions. This gap closed during the heavily disrupted 2020-21 school year, when teachers in traditional public schools reported broad declines in working conditions while charter teachers reported improvements. However, the charter advantage during the pandemic proved to be short-lived. By 2022–23, the pre-pandemic gap favoring traditional public schools had re-emerged.

Keywords: teacher working conditions, charter schools, traditional public schools, pandemic patterns

Charter schools are a large and growing segment of public schools in the United States. Charter enrollment has more than doubled since 2010, reaching nearly four million students nationwide—or about eight percent of total public school enrollment—by 2025 (National Alliance for Public Charter Schools, 2025). However, despite the sector's growth and a large literature on charter schools, we know little about how teacher working conditions differ between charter and traditional public schools.

Charter schools are publicly funded schools that operate with greater autonomy than traditional public schools. They have more flexibility over staffing, teacher compensation, work rules, instructional programs, curriculum, and school organization. This flexibility could allow charter schools to create more supportive and effective working environments for teachers. However, greater school autonomy does not necessarily translate into greater autonomy for teachers or better working conditions. Moreover, charter schools also face stronger accountability pressures and a greater risk of closure, which may adversely affect teachers' work environments. Whether charter schools offer more favorable working conditions than traditional public schools is therefore an empirical question. This question matters because teachers' working conditions are associated with their job satisfaction, effectiveness, and decisions about whether to remain in their schools (Ladd, 2011; Nguyen et al., 2020).

A large literature compares charter and traditional public schools along dimensions such as student achievement, teacher compensation and mobility, and school operations. A smaller literature examines teacher experiences. However, most of these studies focus on broad concepts like teacher well-being and job satisfaction, and only a handful examine teacher working conditions. In addition, the limited evidence on working conditions comes from early in the charter movement, before the sector's substantial expansion (Ni, 2012, 2017; Torres, 2016).

We provide new evidence on teacher working conditions in charter schools using data from the 5Essentials (5E) Survey in Illinois. The 5E Survey includes 20 indicators of teacher working conditions constructed from more than 100 individual survey items. These unusually rich data allow us to compare working conditions in charter and traditional public schools in considerably greater detail than has been possible in prior research. We focus on observationally similar schools and examine working conditions before, during, and after the COVID-19 pandemic, using data from the 2017–18 through 2023–24 school years.

Our analysis yields two main findings. First, prior to the pandemic, teachers in traditional public schools generally reported more favorable working conditions than teachers in charter schools. The traditional public school advantage is evident across most dimensions of working conditions, with particularly large differences in areas such as teacher influence, the quality of professional development, and school commitment. These findings are notable given the greater organizational autonomy afforded to charter schools. Whatever advantages this autonomy may provide, it does not appear to translate into more favorable working conditions for teachers.

An important exception is that charter teachers report substantially higher expectations for students' postsecondary education. This raises the possibility that charter teachers evaluate their working conditions against a more demanding benchmark, potentially contributing to their less favorable assessments via a reference-point effect. Although we cannot rule out this explanation, the differences favoring traditional public schools extend to working conditions that are less directly connected to expectations for students. Moreover, teachers' perceptions of their working conditions are substantively important in their own right, even if those perceptions are influenced by different expectations across sectors.

A second key finding is that the relationship between charter status and teacher working conditions shifted during the COVID-19 pandemic. Working conditions deteriorated in traditional public schools, but charter teachers reported that working conditions held steady or *improved* during the heavily disrupted 2020–21 school year. As a result, the pre-pandemic gap closed, with point estimates favoring charter schools in 2020-21 (though the differences are not statistically significant). The charter gains were apparent in most individual measures of teacher working conditions, with the largest and most consistent gains concentrated in areas related to teacher behavior and commitment (e.g., teacher innovation, collective responsibility, school commitment, teacher-teacher trust, and teacher-parent trust).

The improvement in charter teachers' working conditions during the pandemic is surprising, but the charter advantage proved short-lived. By 2022-23, the pre-pandemic gap favoring traditional public schools had re-emerged, with working conditions in both sectors settling at a much lower level than prior to the pandemic.

These findings complement an emerging literature on student achievement, providing new insights from teachers into how the two sectors experienced the pandemic. Kho, Smith, and Zimmer (2025) and Zimmer et al. (2026) find that charter students generally performed similarly to traditional public school students during the heavily disrupted 2020–21 school year, but experienced stronger academic recovery afterward. Our results reveal a different pattern in teacher working conditions, with the relative charter advantage concentrated in the initial disruption.

Literature Review

What are Teacher Working Conditions?

The term "teacher working conditions" has been used to describe many aspects of the teaching profession. Merrill (2021) organizes working conditions into two broad categories: *Actors* and *Constructs*. *Actors* are people with whom teachers interact: principals, other teachers, parents, students, and community members. *Constructs* include all other things—i.e., not people—that affect the workplace. High-level subcategories of *Constructs* encompass features of the workplace including school climate, professional development and other resources, quality of facilities, and safety. These categories cover a variety of more granular factors—for instance, "school climate" includes innovation, learning climate, and professional trust and respect; and "professional development and other resources" includes new-teacher induction, formal professional development sessions, and class size.

Merrill (2021) synthesizes a narrative definition of teacher working conditions from the literature as "nonpecuniary elements of the workplace that affect teaching" (p. 172). We adopt this definition for our study. Examples of other studies that use a similar definition are Feng (2014), Johnson (2006), and Ladd (2011).

Conceptual Framework and Prior Research

Charter and traditional public schools differ in ways that could produce different working environments for teachers, although the expected direction of those differences is ambiguous. A central premise of the charter model is that greater autonomy from district rules and regulations gives schools more flexibility over staffing, curriculum and instruction, resource allocation, and school organization (Berends, 2015; Dallavis & Berends, 2023). This flexibility could allow charter schools to develop stronger professional communities, provide teachers with greater influence over school decisions, and organize schools around a more coherent mission.

At the same time, greater organizational autonomy does not necessarily translate into greater autonomy for teachers. Charter school leaders may use their flexibility to exercise more centralized control over school operations, leaving teachers with less influence over important decisions. Charter schools also face stronger accountability and competitive pressures, which may contribute to longer working hours, heavier workloads, and greater employment uncertainty. These competing considerations make it difficult to predict whether charter teachers will have more or less favorable working conditions, or which dimensions of working conditions will differ most across sectors.

There is a large literature on differences between charter and traditional public schools along many dimensions, though few studies examine teacher working conditions directly. Most existing research relies on the Schools and Staffing Survey (SASS), which provides nationally representative data but relatively limited information on working conditions. Moreover, existing research primarily relies on data from the early 2000s, before the substantial expansion of the charter sector in the United States (National Alliance for Public Charter Schools, 2025).

The study most closely related to ours is Ni (2012). Ni (2012) compares working conditions in charter and traditional public schools using the 2003-04 SASS, when the charter sector was just emerging. She finds working conditions were similar across sectors along many dimensions, including teachers' assessments of principal leadership, collegiality, and the quality of professional development. She also finds teachers in charter schools report having more influence over school policy, and heavier workloads (also see Torres, 2016).

Ni (2017) follows on Ni (2012) using data from the next wave of the SASS, in 2007-08, and with a particular focus on teachers' commitments to their schools and the profession. She finds charter teachers are less committed to their schools but similarly committed to the

profession. Differences in observable school characteristics, including urbanicity and student demographic and socioeconomic composition, explain a substantial portion of the gap in school commitment across sectors.

Related research examines teacher job satisfaction. Working conditions can influence job satisfaction, but the two concepts are distinct. Job satisfaction can also depend on compensation, personal preferences, and other factors outside of working conditions. The evidence on differences in job satisfaction across sectors is mixed, despite most studies relying on the same underlying SASS data. Some studies find that teachers in charter schools are less satisfied (Roch & Sai, 2017), while others find no difference (Weiss et al., 2024), or that charter teachers are more satisfied (Renzulli et al., 2011).

These differences in results appear to stem primarily from differences in how researchers account for differences in school characteristics. Charter schools are disproportionately located in urban areas and serve larger shares of low-income and historically disadvantaged students. Studies that compare teachers across sectors with minimal controls generally find lower satisfaction among charter teachers, while the conditional relationship becomes more favorable as more school characteristics are taken into account. This pattern underscores the importance of comparing charter and traditional public schools that operate in similar educational contexts.

We build on prior research in two ways. First, we examine teacher working conditions in considerably greater detail than in previous research. For example, Ni (2012) constructs 6 working-condition indicators from 29 survey items in the SASS. In contrast, the 5Essentials Survey contains 20 indicators constructed from 105 survey items. The depth of our data allows us not only to ask whether working conditions are generally better or worse in one sector versus

another, but to identify more precisely which aspects of working conditions differ the most (and least) between charter and traditional public schools.

Second, we provide updated evidence on how working conditions differ across sectors, including how working conditions evolved during and after the COVID-19 pandemic. The charter sector has changed considerably since the period covered by most previous studies.[1] In 2010–11, approximately 1.8 million students attended 5,274 charter schools nationwide. By 2021–22, charter enrollment had more than doubled to 3.7 million students, attending 7,847 schools (National Center for Education Statistics, 2023). Findings from the early years of the charter movement may not reflect working conditions in the larger and more mature charter sector today. Moreover, the pandemic created an unprecedented disruption to school operations, and emerging evidence suggests that charter and traditional public schools experienced and responded to this disruption differently (Kho et al. 2025; Zimmer et al., 2026). Our analysis provides new evidence on these differences from the teacher perspective.

Data and Methods

The 5E Survey

The 5E Survey is administered annually in Illinois. We construct a school-level panel dataset using response data from 2018 to 2024, excluding 2020 because the survey was not administered when the COVID pandemic disrupted school operations during the spring survey window.

The 5E Survey aggregates teacher and student responses at three levels: Measures, Essentials, and an Essentials Summary Score. Measures are the most disaggregated level and capture specific aspects of school conditions, such as teacher safety and instructional leadership.

[1] Weiss et al. (2024) use newer data from SASS waves up through 2017-18, but they do not study working conditions as defined here. They focus on measures of workload, income, and student demographics.

Measures are combined into five broad Essentials: Effective Leaders, Collaborative Teachers, Involved Families, Supportive Environment, and Ambitious Instruction (Sebring et al., 2006). Finally, the Essentials Summary Score combines information across all survey items and respondents into a single indicator of school conditions.

Given our interest in teacher working conditions, we use the 20 Measures constructed from teacher survey responses. Each Measure aggregates responses across multiple survey items and teachers within a school. The aggregation is performed using Rasch analysis, which applies principles of item response theory to account for differences in the informativeness of survey items and responses. As with scaled test scores, the resulting Measures are more informative than simple averages of raw responses (Bond & Fox, 2012).[2]

The Measures are standardized and scaled from 1 to 99 using the 2013 Illinois school distribution as the reference. A value of 50 corresponds to the 2013 average, and a 20-point difference corresponds to one standard deviation. Because the same reference distribution is used in each year, changes in the Measures can be compared consistently over time.[3]

Table 1 lists the 20 teacher-directed Measures, which are comprised of 105 total survey items. Appendix C shows the individual survey items under each Measure. Note that all Measures are constructed so that a more positive value means better working conditions; e.g., the Measure of "classroom disruptions" is reverse coded so a larger number indicates fewer disruptions.

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[2]The Rasch analysis is conducted by the University of Chicago Consortium on School Research prior to providing the data to ISBE (Hart et al., 2020).

[3] For instance, an increase of 10 points from 2019 to 2021 for a particular Measure will mean the same thing (distributionally) as an increase of 10 points from 2021 to 2023. Noting this advantage of the 2013 benchmarking, an interpretive challenge is that while the 5E Survey was administered in 2013, the administration was not universal (like in all pre-2019 years). This creates some ambiguity with respect to what it means to move in the observed 2013 distribution. Baker and Koedel (2026) explore this issue in detail and conclude that the suggested translation of points to standard-deviation units is likely accurate, at least to a close approximation, and we use it when we interpret our findings below.

The Measures span most of Merrill's (2021) working-conditions catalog. For instance, they cover interactions with Merrill's *Actors* including principals (e.g., instructional leadership, teacher-principal trust), other teachers (e.g., collaborative practices, reflective dialogue, teacher-teacher trust), students (e.g., level of classroom disruptions, student responsibility, quality of student discussions), and parents (e.g., parent influence on decision making in schools, parent involvement, teacher-parent trust). Among Merrill's *Constructs*, the Measures cover aspects of school climate (e.g., innovation, teacher influence, program coherence, expectations for postsecondary education, reflective dialogue), professional development (e.g., quality professional development, socialization of new teachers), and safety (e.g., teacher safety). Some Measures fit into more than one category in Merrill's framework.

Though the 5E Survey does not cover every dimension of working conditions identified by Merrill (2021), it captures many of the dimensions that teachers consistently identify as most important. For instance, when teachers are surveyed about the aspects of their jobs they value most, they often emphasize aspects related to the work culture, such as effective leadership and a collaborative work environment, and aspects related to professional development resources, such as strong teacher support systems (Grissom et al., 2015; Johnson et al., 2012; Simon & Johnson, 2015). These and related concepts are well-represented on the 5E Survey.[4]

5E Survey Coverage

The broad coverage and high teacher response rate on the 5E Survey are key strengths of our study. Baker and Koedel (2026) document these features using statewide data. In Table 2, we

[4] Examples of categories in Merrill's framework not directly represented on the 5E Survey are working conditions related to interactions with community members (under *Actors*), school features (e.g., class size; under *Constructs*), and facilities (e.g., cleanliness, materials; under *Constructs*).

examine them separately for charter and traditional public schools in districts with at least one charter school in 2019, which form the basis for our analytic sample.

Table 2 reports school coverage and teacher response rates by year and sector. From 2019 onward, enrollment-weighted school coverage generally exceeds 90 percent in both sectors.[5] Conditional on school participation, the teacher response rate ranges from approximately 75 to 85 percent. These response rates are on par with highest response rates observed in the literature for surveys of this type (e.g., Kraft et al., 2021). Most similar surveys have lower response rates—e.g., Redding and Nguyen (2024) report the response rate on the 2021 SASS was 62 percent. Response rates for other surveys that cover working conditions are often in the 50-percent range or lower, when reported (e.g., EdChoice, 2024; Horng, 2009).[6]

We briefly note two other aspects of our data illustrated in Table 2. First, the 5E Survey was not administered in 2020 because the pandemic hit during the survey window. Thus, no 2020 data are reported. Second, the 5E Survey was incorporated into Illinois's ESSA plan and administered statewide beginning in 2019. Prior to 2019, it was not administered consistently in all districts, which contributes to the lower school coverage in 2018, especially in traditional public schools. For this reason, our preferred pre-COVID data are from 2019. When we turn to our analysis of working-condition trends we include the 2018 data, but with the caveat that a much larger share of traditional public schools do not have survey data available.

Sample Construction

We merge the 5E Survey data with federal data on charter status, urbanicity, school enrollment, and student demographic characteristics, from the Common Core of Data (CCD). We

[5] The unweighted coverage rate is lower for traditional public schools partly due to the greater prevalence of small schools among traditional public schools; 5E Survey data are more likely to be missing for small schools.
[6] A surprising number of studies that rely on surveys in this literature do not report survey response rates.

also incorporate school neighborhood poverty estimates, which are geospatial estimates of local-area poverty provided by the National Center for Education Statistics (NCES). Following Fazlul et al. (2023), we use a mathematical transformation of the neighborhood poverty measure to estimate the share of students from families with incomes at or below 130 percent of the federal poverty line. We borrow their terminology and refer to this measure as IPR(130).[7]

To avoid conflating our comparison of charter and traditional public schools with the different contexts in which they operate, we construct a matched sample of schools based on 2019 data (prior to the pandemic). We then follow these schools over time, noting that our data panel is generally balanced with little movement of schools into or out of the sample.[8]

We document the output of our matching process in Table 3. First, we begin in column (1) by showing the characteristics of charter schools in Illinois. Charter schools serve large fractions Black and Hispanic students, and students from low-income families. Nearly all are in urban areas (94 percent), and mostly Chicago. Approximately half are elementary schools and half are high schools, with relatively few middle schools.[9]

Column (2) reports characteristics of traditional public schools statewide. The differences from charter schools are substantial. Traditional public schools serve a larger share of White students and a smaller share of students in poverty. They are also much less likely to be in urban areas and more likely to be elementary or middle schools. These differences illustrate why an unrestricted comparison of working conditions across sectors could be misleading.

[7] Fazlul et al. (2023) show that free and reduced-price lunch enrollment, which is commonly used to measure poverty status, overstates poverty significantly.
[8] The school-level sample size fluctuates between 216 and 240 schools over the full sample period from 2018 to 2024.
[9] "High schools" are coded based on the NCES definition, plus multi-level schools with highest grade served > 8.

Columns (3) and (4) report characteristics for two matched samples of traditional public schools. We construct these samples using one-to-one nearest-neighbor propensity-score matching. Specifically, we estimate a logit model predicting charter status as a function of school enrollment, racial/ethnic and poverty enrollment shares, urbanicity, and schooling level. We then match each charter school to the traditional public school with the closest estimated propensity score. We have a low ratio of charter to traditional public schools in our dataset, which prior research shows is conducive to a strong matching design (Frölich, 2004). Correspondingly, Table 3 shows that our matching strategy is effective at extracting a sample of traditional public schools that is observationally similar to the sample of charter schools.

In column (3), we use all traditional public schools in the state as the pool of potential matches. In column (4), we restrict potential matches to schools in a district with at least one charter school in 2019, which we refer to as the "district-matched" sample. In both cases, there are no statistical differences between the matched samples, and even ignoring statistical significance, the school and student characteristics are very similar. For instance, the estimated share of students living at or below 130 percent of the poverty line in Illinois charter schools is 44 percent; in the matched samples in columns (3) and (4), it is 45 and 44 percent, respectively. The samples are similarly well balanced on the other characteristics reported in the table.

We use the district-matched sample in column (4) as our preferred comparison group because it is restricted to schools operating in districts with charter schools. This provides a more geographically and institutionally comparable set of schools than matching statewide. However, our substantive findings are not sensitive to this restriction and results using the statewide matched sample are similar (results omitted for brevity). Given that the matching worked well,

we matched without replacement and no caliper, though the results are substantively similar when we use matching with replacement or use a caliper. See Appendix A for more details.

Finally, columns (5) and (6) report the characteristics of matched charter and traditional public schools within Chicago only. This is arguably our cleanest matched sample, although it is narrower. We lead in what follows with the full district-matched sample. However, given the strong presence of Chicago in our charter-school data, we provide complementary results for Chicago in Appendix D.

Illinois Context

The depth and coverage of the 5E Survey are major strengths of our study, but the geographic concentration of the sample limits its generalizability. Our analysis focuses on Illinois charter schools and their matched traditional public school counterparts, with Chicago having primary influence.[10] Several features of the Illinois charter sector and Chicago Public Schools (CPS) provide useful context for interpreting the findings.

First, charter schools in our sample vary in their organizational structure. Some belong to large charter networks, such as the Knowledge is Power Program (KIPP) and the Noble Network of Charter Schools, while others operate independently. Approximately 90 percent are authorized by local school districts, with the remaining 10 percent authorized by the Illinois State Board of Education. This distinction has limited implications for the basic charter model or regulatory requirements. Total funding is also similar, although the funding mechanism differs. District-authorized charters receive funding through their authorizing districts, while state-authorized charters receive funding directly from the state.

[10] The districts with charter schools in our sample outside of Chicago are North Chicago, Rockford, Springfield, and Community Unit School District 300.

In terms of broader context, CPS is the largest school district in Illinois and accounts for about nine percent of total public-school enrollment statewide. Its student population is predominantly Black and Hispanic and includes a large share of students from low-income families. Just over 45 percent of CPS students are Hispanic, and approximately 35 percent are Black. Our IPR(130) measure indicates that roughly 40 percent of students come from families with incomes at or below 130 percent of the poverty line, and just over 70 percent are classified as low-income by CPS based on eligibility for free or reduced-price lunch. As shown in Table 3, charter schools and matched traditional public schools serve somewhat more disadvantaged student populations than the average CPS school.

Finally, CPS experienced substantial disruption during the COVID-19 pandemic. Like most other urban school districts, CPS moved primarily to online learning during the 2020-21 school year. Individual school reports indicate there was some hybrid instruction, but most instruction was virtual. Schools reopened for in-person instruction for the 2021-22 school year, but the return was contentious. For instance, in January 2022, CPS teachers walked out due to concerns over COVID safety. The walkout was organized for district-operated (non-charter) schools. It lasted about a week and resulted in the cancellation of classes. Participation at charter schools was mixed; some charter schools remained open during the walkout while others closed (Chalkbeat, 2022). This incident serves as an example of differences in how charter and non-charter schools navigated the pandemic and its associated disruption.

Results

Factor Analysis

We explore differences between charter and traditional public schools for all 20 working-condition Measures on the 5E Survey, but we also use factor analysis to aggregate the

information across multiple Measures. This simplifies the presentation for some findings. We follow the approach of Baker and Koedel (2026) for the factor analysis. Specifically, we apply oblique rotation and use the eigenvalues from the correlation matrix to identify the number of factors. Using the Kaiser–Guttman criterion, which retains factors with eigenvalues greater than one, we identify two factors.

Table 4 reports the factor weights for each Measure, which are derived from the factor loadings and normalized to produce weighted averages of the underlying Measures. The first factor loads most heavily on Measures related to the professional work environment, including collaborative practices, reflective dialogue, teacher innovation, and the quality of professional development. The second factor loads primarily on Measures related to teachers' interactions with students and families, such as student responsibility, teacher safety, and teacher-parent trust. Based on these patterns, we adopt the terminology of Baker and Koedel (2026) and label the two factors "professional work environment" and "interactions with students and families."[11]

Working conditions prior to the pandemic

We begin by comparing working conditions in charter and traditional public schools in 2019, using our preferred district-matched sample from columns (1) and (4) of Table 3. Table 5 reports the results for each of the 20 individual Measures, along with the two composite indices.

Teachers in traditional public schools generally report more favorable working conditions than teachers in charter schools. Of the 20 Measures, 18 are higher in traditional public schools, with statistically significant differences at the 5-percent level for seven Measures. Traditional

[11] We deviate from Baker and Koedel (2026) in one respect, which is that we do not include the Measure of classroom disruptions in the factor analysis. This is one of the Measures for which the difference between charter and traditional public schools is largest, and it is only available in 2018, 2019, 2023, and 2024. Including it in the working-condition indices complicates inference about changes in working conditions across sectors when the pandemic happened. That said, we do evaluate this Measure independently (Appendix Figure B1).

public schools also score approximately 5–6 points higher on the two composite indices, equivalent to roughly 0.25–0.30 standard deviations on the survey scale. The difference for the professional work environment index is statistically significant.

The largest differences favoring traditional public schools are in the following areas: teacher influence, program coherence, parent influence on decision making in schools, quality professional development, school commitment, and the quality of student discussion. Each of these Measures shows a gap of at least eight points, or approximately 0.4 standard deviations. The largest gap is in the quality of professional development, where traditional public schools score 15 points higher. The 11-point gap in school commitment indicates that teachers in traditional public schools are more likely to report being happy at, and loyal to, their schools. This finding is consistent with earlier evidence from Ni (2017), based on the 2007–08 SASS.

The difference in teacher influence is also noteworthy. Greater organizational autonomy is a defining feature of charter schools, yet charter teachers report having less influence over decisions involving curriculum, instructional materials, professional development, and other aspects of school operations. This illustrates the distinction between autonomy for schools and autonomy for the teachers who work in them. It also contrasts with Ni (2012), who found that charter teachers reported having greater influence on similar dimensions of school policy using data from 2003-04.

A notable exception to the general advantage of traditional public schools is expectations for students' postsecondary education. Charter schools score eight points higher on this Measure, a statistically significant difference. The underlying survey questions are administered only to high school teachers, so this comparison is based on a subsample.

The higher expectations reported by charter teachers raise the concern about a potential reference-point effect. That is, if charter teachers hold their students to higher standards, they may also evaluate their working conditions against a more demanding benchmark. This could lead them to report less favorable working conditions even when underlying conditions are similar.

Although we cannot rule out this possibility, it seems unlikely to fully account for our results. Different expectations for students should plausibly affect some working-condition Measures more than others. For instance, the Measure of the quality of student discussions is more likely to be impacted than, say, the Measure of quality professional development, or teacher influence over school decisions. However, this pattern is not borne out in the results.

More broadly, this issue serves as a useful reminder that the 5E Survey data are based on teacher perceptions. The survey responses capture how teachers evaluate their working conditions, which can be influenced by external factors, like expectations. Still, teacher perceptions are independently important. They can influence satisfaction, performance, and teachers' decisions about whether to remain in their schools, even if they do not perfectly reflect objectively measurable differences in working conditions.

Trends in working conditions during and after the pandemic

In Figure 1 we examine how working conditions evolved during and after the COVID pandemic, from 2018 to 2024. For presentational convenience we rely primarily on the working-condition indices in this section of the paper, though we draw on the more detailed Measure-by-Measure data to supplement the trend analysis in some areas. Recall from above that the 2018 5E Survey data have limited coverage—especially for traditional public schools—suggesting a cautious interpretation of the data from that year.

Figure 1 shows that working conditions in traditional public schools declined substantially during the pandemic and recovered only modestly afterward, consistent with findings from Baker and Koedel (2026) using statewide data. This pattern is evident for both the professional work environment and interactions with students and families.

The experience of charter schools was markedly different. Between 2019 and 2021, charter teachers report improvements in working conditions on both indices, particularly the professional work environment. Combined with the declines in traditional public schools, these trends closed the pre-pandemic differences across sectors. Whereas traditional public school teachers reported more favorable working conditions in 2019, point estimates for 2021 favor charter schools on both indices, by about 2 points on the professional work environment and 1.5 points on interactions with students and families, though these differences are not statistically significant. The more important finding is the change in the gap relative to traditional public schools—the gap changed by 6-8 points as measured by the working-condition indices.

This result is surprising. Much of the evidence on teachers' experiences during the pandemic points to deteriorating working conditions and a decline in well-being, although that evidence comes disproportionately from teachers in traditional public schools. Our findings indicate that charter teachers experienced the disruption differently, at least as reflected in their survey responses.

To investigate this result further, Appendix Figure B1 reports trends for each of the 20 individual Measures. The improvement in charter schools is evident across most dimensions of working conditions, with especially notable gains in teacher innovation, teacher-parent trust, collective responsibility, and school commitment between 2019 and 2021. Charter teachers also reported improvements in teacher-teacher, and teacher-principal trust. If we did not have access

to such rich data to see that the pattern is consistent across most working-condition Measures, it would be easier to dismiss the increase as the product of noise or inaccurate measurement. The consistency of the pattern across multiple Measures strengthens the evidence that charter teachers' perceptions of their working conditions truly improved during the 2020–21 school year. It also suggests that the improvement was not confined to a narrow aspect of working conditions.

We consider two explanations for the increase reported by charter teachers. First, we could be picking up a different type of reference-point effect, this time due to the pandemic. The pandemic represented a major disruption to schooling, potentially changing teachers' expectations about what constituted favorable working conditions. If charter teachers adjusted their expectations downward, their reported working conditions could have improved even without corresponding improvements in their underlying work environments. However, again, explaining away our results as the product of a reference-point effect is unsatisfying: if this were the primary cause, it is unclear why a reference-point effect would only affect teachers in charter schools, and not teachers in traditional public schools.

Second, we consider the potential for cross-sector differences in mode-of-instruction during the pandemic to contribute to our findings. We draw on data from the COVID School Data Hub, which reports the number of days of instruction spent in person, online, and in hybrid mode, during the 2020-21 school year.[12] These data indicate that almost no instruction occurred in person during the year in either sector. However, charter schools relied more heavily on virtual instruction, which accounted for 82 percent of instructional days, compared with 65 percent in traditional public schools. Hybrid instruction accounted for the remaining days in both sectors.

[12] https://www.covidschooldatahub.com/

It is possible that charter teachers viewed their working conditions more favorably because they spent more time teaching remotely. However, almost all instruction in both sectors was virtual or hybrid, and Baker and Koedel (2026) find that greater reliance on remote instruction was associated with larger declines in teacher working conditions statewide in Illinois. This is inconsistent with the notion that additional remote instruction improved charter teachers' perceptions of their working conditions.

We conclude that there is not a straightforward explanation related to reference-point effects or mode-of-instruction differences that can account for our findings in 2021. Although we cannot pin down a precise mechanism, the evidence indicates that teachers across sectors experienced the pandemic disruption differently. Ultimately, however, the relative improvement in charter teachers' working conditions did not persist. Figure 1 shows that working conditions remained similar across sectors in 2021-22, and by 2022-23, the pre-pandemic gap favoring traditional public schools had re-emerged.

Appendix Figure B1 confirms that the differences across sectors largely returned to their pre-pandemic levels on a Measure-by-Measure basis, with few exceptions. This pattern contrasts with the achievement literature, which documents stronger relative achievement growth in charter schools during the post-pandemic recovery.

Limitations

We qualify our findings by noting several limitations. Our data are from Illinois, where charter schools are heavily concentrated in Chicago, and the results may not generalize to charter schools in other states or outside large urban districts. Moreover, although we compare charter and traditional public schools serving similar student populations and operating in similar educational contexts, matching on observables does not eliminate all potentially important

differences between sectors, and our findings should therefore be interpreted as descriptive comparisons rather than causal effects of charter status. We also acknowledge that our school-level aggregate indicators of teacher working conditions may mask important variation within schools.

A broader, conceptual limitation is that our measures of working conditions are based on teacher perceptions. Teacher perceptions are important in their own right because they shape satisfaction, effort, and decisions about whether to remain in a school, but they can be influenced by differences in expectations across sectors or changes in expectations over time. As discussed above, charter teachers report substantially higher expectations for students' postsecondary education. If this means they evaluate their workplaces against a more demanding benchmark, our comparisons could understate the quality of their underlying working conditions. Similarly, changes in expectations during the pandemic could have contributed to the reported improvements in charter schools in 2020-21. We cannot fully separate these possibilities from changes in underlying conditions, but the breadth and consistency of the patterns across various Measures suggest that they at least partly reflect meaningful differences in teachers' experiences.

Discussion and Conclusion

We use rich survey data from Illinois to compare teacher working conditions in charter and traditional public schools before, during, and after the COVID pandemic. Our analysis provides a more detailed comparison of working conditions across sectors than has been possible in prior research. The depth of the 5E survey enables us to identify which dimensions of the teacher work environment differ, by how much, and how those differences evolved through the pandemic.

Before the pandemic, we show that teachers in traditional public schools reported more favorable working conditions on most dimensions. We also show that this gap closed during the heavily disrupted 2020–21 school year, when teachers in traditional public schools reported declining working conditions while charter teachers reported modest improvements. But the charter advantage during the pandemic proved temporary. Both sectors experienced their sharpest single-year drop in working conditions between 2020-21 and 2021-22, when schools returned to in-person instruction, and by 2022-23, the pre-pandemic gap favoring traditional public schools had re-emerged. In both sectors, working conditions during the 2023-24 school year were about 0.4 to 0.6 standard deviations below their 2018-19 levels.

Charter School Autonomy, Teacher Autonomy, and Teacher Turnover

Our pre-pandemic findings speak to a central premise of the charter model. Greater organizational autonomy is often presumed to give teachers more latitude in their work, yet charter teachers in our sample report less influence over curriculum, instructional materials, and standards for student behavior. Our findings suggest greater autonomy granted to schools does not necessarily flow to the teachers who work in them.

The 8-point gap (approximately 0.4 standard deviations) in teacher influence favoring traditional public schools in 2019, which largely persists throughout our data panel (see Appendix Figure B1), contrasts with Ni (2012), who found that charter teachers reported greater influence over school policy in 2003–04. One plausible explanation is that the charter sector itself has changed. Early charter schools were more often standalone organizations whereas the contemporary sector is increasingly shaped by charter management organizations that exercise more centralized control over curriculum and disciplinary systems (Weiss et al., 2024).

The differences in working conditions that we document across sectors may contribute to differences in teacher retention. Teachers who work in schools with better work environments are less likely to turn over (Nguyen et al., 2020), and the relationship between turnover and working conditions is more pronounced in low-income schools, like those in our sample (Nguyen, 2021). Meanwhile, charter teachers have long turned over at higher rates than their traditional public school peers, with urban charter teachers especially likely to leave (Crouch & Nguyen, 2021; Nguyen et al., 2020). We cannot test the link directly, but the 11-point gap in school commitment, alongside the gaps in professional development and teacher influence, suggests that working conditions may be one channel through which the charter turnover gap operates.

Interpreting the Pandemic-Era Patterns

Both working-condition indices declined in traditional public schools between 2019 and 2021. In charter schools, the professional work environment index improved, and the index capturing interactions with students and families was essentially flat. Measure-level gains during this period among charter teachers were concentrated in areas such as teacher innovation, collective responsibility, and school commitment, along with trust with principals, parents, and other teachers. Teachers in charter schools lagged on these dimensions of professional community prior to the pandemic.

The return to in-person instruction, rather than the remote year, marks the steepest decline in working conditions in both sectors. Between 2020–21 and 2021–22, the professional work environment index fell by roughly 10 points in traditional public schools and 13 points in charter schools. This timing coincides with elevated teacher turnover nationally as schools reopened (Camp et al., 2025; Goldhaber & Theobald, 2023). The professional work environment partially recovered thereafter in traditional public schools, but interactions with students and families have

not recovered in either sector, suggesting that the conditions teachers associate with students and families, such as student responsibility, safety, and trust with parents, have been slower to rebound than the professional environment.

The timing of these changes contrasts with recent evidence on charter school achievement during and after the pandemic. Studies from Tennessee and Indiana find that charter students generally performed similarly to comparable students in traditional public schools during the heavily disrupted 2020–21 school year, but experienced stronger relative achievement growth during the subsequent recovery (Kho et al., 2025; Zimmer et al., 2026). In our data, by contrast, the relative improvement in charter teachers' working conditions was concentrated in 2020–21 and disappeared as schools returned to in-person instruction.

Although the achievement evidence comes from other states and comparable evidence from Illinois is unavailable, the contrasting patterns raise an interesting possibility: charter schools may have pursued academic recovery through more centralized and intensive approaches that increased demands on teachers. Such an explanation would be consistent with the deterioration in charter teachers' relative working conditions during the period of stronger relative achievement growth, although our data cannot establish this mechanism.

Implications for Policy and Practice

The shared decline in working conditions in both the charter and traditional public school sectors is arguably our most consequential finding for state policymakers. Debates about charter schools often focus on cross-sector comparisons, but in our data, the gap between sectors is smaller than the declines both sectors have experienced since 2019. State recruitment and retention strategies should treat working conditions as a lever alongside financial incentives, preparation, and support for both charter and traditional public schools (Nguyen & Redding,

2026). Our findings also suggest charter schools could pay more explicit attention to teacher voice. Charter laws grant greater autonomy to schools, but our results suggest this autonomy does not reliably reach teachers. Policymakers and charter leaders could develop strategies to give teachers a stronger role in school decisions. Relatedly, the gap in the quality of professional development experienced by teachers across sectors suggests a role for policies that expand charter teachers' access to sustained, collaborative professional learning, for instance through regional networks or district-charter partnerships.

In terms of practice, the Measure-level results provide detailed guidance for school leaders. The items underlying teacher influence ask about discretionary funds, instructional materials, curriculum, in-service programs, and standards for student behavior. Charter leaders interested in narrowing the teacher influence gap could build structured roles for teachers to be more involved in these decisions, and network leaders could create channels through which teacher input shapes network-wide choices.

In conclusion, our findings indicate that the greater organizational autonomy of charter schools has not translated into more favorable working conditions for teachers. The pandemic briefly erased the traditional public school advantage in working conditions, but not durably, and the aftermath of the pandemic left working conditions in both sectors well below where they stood before 2020. For researchers, policymakers, and school leaders concerned with building a stable and effective teacher workforce, the more pressing questions may be less about which sector offers better working conditions and more about how to rebuild them in both.

References

Baker, S. P., & Koedel, C. (2026). The decline in teacher working conditions during and after the COVID pandemic. *Journal of Research on Educational Effectiveness*, *19*(3), 927–951.

Berends, M. (2015). Sociology of school choice: What we know after two decades of charter schools. *Annual Review of Sociology*, *41*, 159–180.

Bond, T. G., & Fox, C. M. (2012). *Applying the Rasch model: Fundamental measurement in the human sciences* (2nd ed.). Routledge.

Camp, A., Zamarro, G., & McGee, J. (2025). Looking back and moving forward: COVID-19's impact on the teacher labor market and implications for the future. *Educational Evaluation and Policy Analysis*, *47*(4), 983–1009.

Chalkbeat. (2022, January 6). *Latest updates: Most Chicago schools will be closed for a third day*. Chalkbeat Chicago.

Crouch, M., & Nguyen, T. D. (2021). Examining teacher characteristics, school conditions, and attrition rates at the intersection of school choice and rural education. *Journal of School Choice*, *15*(2), 268–294.

Dallavis, J. W., & Berends, M. (2023). Charter schools after three decades: Reviewing the research on school organizational and instructional conditions. *Education Policy Analysis Archives*, *31*(1).

EdChoice. (2024). *Teachers and K-12 education: A national polling report*. [Policy report].

Fazlul, I., Koedel, C., & Parsons, E. (2023). Free and reduced-price meal eligibility does not measure student poverty: Evidence and policy significance. *Economics of Education Review*, *94*, Article 102374.

Feng, L. (2014). Teacher placement, mobility, and occupational choices after teaching. *Education Economics*, *22*(1), 24–47.

Frölich, M. (2004). Finite-sample properties of propensity-score matching and weighting estimators. *The Review of Economics and Statistics*, *86*(1), 77–90.

Goldhaber, D., & Theobald, R. (2023). Teacher attrition and mobility in the pandemic. *Educational Evaluation and Policy Analysis*, *45*(4), 682–687.

Grissom, J. A., Viano, S. L., & Selin, J. L. (2016). Understanding employee turnover in the public sector: Insights from research on teacher mobility. *Public Administration Review*, *76*(2), 241–251.

Hart, H., Young, C., Chen, A., Zou, A., & Allensworth, E. M. (2020). *Supporting school improvement: Early findings from a reexamination of the 5Essentials Survey* [Policy Report]. University of Chicago Consortium on School Research.

Horng, E. L. (2009). Teacher tradeoffs: Disentangling teachers' preferences for working conditions and student demographics. *American Educational Research Journal*, *46*(3), 690–717.

Johnson, S. M. (2006). *The workplace matters: Teacher quality, retention, and effectiveness*. [Working paper]. National Education Association.

Johnson, S. M., Kraft, M. A., & Papay, J. P. (2012). How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement. *Teachers College Record*, *114*(10), 1–39.

Kho, A., Smith, S. L., & Zimmer, R. (2025). *From disruption to recovery: Charter school performance during and after the COVID-19 pandemic* (EdWorkingPaper No. 25-1225). Annenberg Institute at Brown University.

Kraft, M. A., Simon, N. S., & Lyon, M. A. (2021). Sustaining a sense of success: The protective role of teacher working conditions during the COVID-19 pandemic. *Journal of Research on Educational Effectiveness*, *14*(4), 727–769.

Ladd, H. F. (2011). Teachers' perceptions of their working conditions: How predictive of planned and actual teacher movement? *Educational Evaluation and Policy Analysis*, *33*(2), 235–261.

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.

National Alliance for Public Charter Schools. (2025). *Enrollment brief: Charter schools 2025*. [Policy Brief].

National Center for Education Statistics. (2023). *Digest of Education Statistics 2022*. U.S. Department of Education.

Nguyen, T. D. (2021). Linking school organizational characteristics and teacher retention: Evidence from repeated cross-sectional national data. *Teaching and Teacher Education*, *97*, Article 103220.

Nguyen, T. D., Pham, L. D., Crouch, M., & Springer, M. G. (2020). The correlates of teacher turnover: An updated and expanded meta-analysis of the literature. *Educational Research Review*, *31*, Article 100355.

Nguyen, T. D., & Redding, C. (2026). *Ending teacher shortages*. Johns Hopkins University Press.

Ni, Y. (2012). Teacher working conditions in charter schools and traditional public schools: A comparative study. *Teachers College Record, 114*(3), 1–26.

Ni, Y. (2017). Teacher working conditions, teacher commitment, and charter schools. *Teachers College Record, 119*(6), 1–38.

Redding, C., & Nguyen, T. D. (2024). Teacher working conditions and dissatisfaction before and during the COVID-19 pandemic. *Educational Researcher*, *53*(4), 233–244.

Renzulli, L. A., Parrott, H. M., & Beattie, I. R. (2011). Racial mismatch and school type: Teacher satisfaction and retention in charter and traditional public schools. *Sociology of Education*, *84*(1), 23–48.

Roch, C. H., & Sai, N. (2017). Charter school teacher job satisfaction. *Educational Policy*, *31*(7), 951–991.

Sebring, P. B., Allensworth, E., Bryk, A. S., Easton, J. Q., & Luppescu, S. (2006). *The essential supports for school improvement*. [Research report]. Consortium on Chicago School Research at the University of Chicago.

Simon, N., & Johnson, S. M. (2015). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record*, *117*(3), 1–36.

Torres, A. C. (2016). Is this work sustainable? Teacher turnover and perceptions of workload in charter management organizations. *Urban Education*, *51*(8), 891–914.

Weiss, A., Woo, D., & Nguyen, T. (2024). More alike or more different over time? Exploring urban charter and public school teachers' characteristics and working conditions. *Journal of School Choice*, *18*(2), 215–237.

Zimmer, R., Ponisciak, S. M., Berends, M., Dallavis, J. W., Ferrare, J., Kho, A., Smith, S. L., & Waddington, R. J. (2026). *Indiana charter school performance during and after the COVID-19 pandemic* (EdWorkingPaper No. 26-1477). Annenberg Institute at Brown University.

Tables and Figures

Table 1. The 20 Measures of teacher working conditions on the 5E Survey.

Classroom Disruptions	Teacher Innovation	Quality Professional Development	Teacher-Parent Trust
Instructional Leadership	Program Coherence	Reflective Dialogue	Teacher-Teacher Trust
Collaborative Practices	Parent Influence on Decision Making in Schools	School Commitment	Teacher-Principal Trust
Collective Responsibility	Parent Involvement in School	Quality of Student Discussion	Teacher Safety
Teacher Influence	Student Responsibility	Socialization of New Teachers	Expectations for Postsecondary Education

Table 2. 5E Survey coverage and teacher response rate by year and school type. Districts with at least one charter school in 2019.

	Charter Schools			Traditional Public Schools		
Year (spring)	Share of all schools listed in the CCD with 5E data	Enrollment-weighted share of all schools listed in the CCD with 5E data	Teacher survey response rate (conditional on school participation)	Share of all schools listed in the CCD with 5E data	Enrollment-weighted share of all schools listed in the CCD with 5E data	Teacher survey response rate (conditional on school participation)
2024	0.92	0.96	81.0	0.84	0.91	78.5
2023	0.93	0.95	80.4	0.85	0.93	77.1
2022	0.85	0.87	79.4	0.82	0.90	75.2
2021	0.84	0.91	78.4	0.82	0.90	76.2
2019	0.85	0.90	84.6	0.83	0.92	81.6
2018	0.79	0.86	83.8	0.48	0.54	86.9

Notes: CCD=Common Core of Data. Due to the disruption caused by the COVID pandemic, the 5E Survey was not administered in 2020. Enrollment in some schools in the CCD is missing. If missing, we impute school enrollment using a contiguous year value in the CCD. If there is no contiguous year value, enrollment is imputed as the number of eligible student respondents to the 5E Survey, with an adjustment for primary schools given that the survey is not administered prior to the 4th grade. Schools that participated in the 5E Survey, but for which the data are censored due to small samples, are not included in the analysis that follows, and as such they are treated as being excluded from the 5E dataset in this table. The teacher survey response rate is calculated as the weighted average of schools' response rates where the number of teachers in the school is the weight.

Table 3. Comparisons of Charter and Traditional Public Schools, 2019.

	Illinois Statewide				Schools in the Chicago Public School District Only	
	(1) Charter Schools	(2) Traditional Public Schools, All	(3) Traditional Public Schools, Statewide Match	(4) Traditional Public Schools, District Match	(5) Charter Schools	(6) Traditional Public Schools
Enrollment	487.2	520.4	431.5	464.3	498.9	499.1
Asian Share	0.01	0.04*	0.01	0.02	0.01	0.01
Black Share	0.55	0.18*	0.55	0.56	0.56	0.56
Hispanic Share	0.39	0.22*	0.39	0.37	0.41	0.40
White Share	0.03	0.53*	0.04	0.04	0.01	0.01
Other Share	0.01	0.04*	0.01	0.01	0.01	0.01
Poverty Share (IPR(130))	0.44	0.31*	0.45	0.44	0.44	0.45
Urban (0/1)	0.94	0.26*	0.94	0.95	1.0	1.0
Chicago (0/1)	0.90	0.15*	0.90	0.92	1.0	1.0
Elementary school	0.47	0.63*	0.44	0.43	0.44	0.40
Middle school	0.03	0.18*	0.03	0.05	0.04	0.05
High school	0.49	0.19*	0.52	0.52	0.52	0.55
N	120	3,327	120	120	102	102

Table Notes: The sample size is the number of schools with at least one non-missing 5E Survey Measure value and at least one non-missing school characteristic in 2019.

* in columns (2)-(4) indicates the value is statistically distinguishable from charter schools value in column (1); we also tested for statistically significant differences between columns (5) and (6) but there are none.

Table 4. Factor Weights.

	Factor 1 - Professional Work Environment	Factor 2 - Interactions with Students and Families
Classroom Disruptions	--	--
Instructional Leadership	0.10	-0.01
Teacher-Principal Trust	0.06	0.02
Collaborative Practices	0.07	-0.01
Collective Responsibility	0.08	0.03
Teacher Influence	0.05	0.01
Teacher Innovation	0.09	0.01
Program Coherence	0.07	0.03
Parent Influence on Decision Making in Schools	0.07	0.03
Parent Involvement in School	0.02	0.11
Student Responsibility	-0.01	0.18
Quality Professional Development	0.09	0
Reflective Dialogue	0.09	-0.03
School Commitment	0.04	0.09
Quality of Student Discussion	0.03	0.13
Socialization of New Teachers	0.04	0.01
Teacher-Parent Trust	0.03	0.14
Teacher-Teacher Trust	0.08	0.02
Teacher Safety	0	0.16
Expectations for Postsecondary Education	0	0.07

Notes: We build two composite indices of working conditions, calculated as weighted averages of the underlying survey Measures, using these factor weights. We omit Classroom Disruptions from the indices because it is missing between 2019 and 2023, which clouds inference from the comparative trends. Expectations for Postsecondary Education is not asked of teachers in elementary and middle schools so its weight is redistributed across other Measures.

Table 5. Teacher Working Conditions in Charter and Traditional Public Schools, 2019.

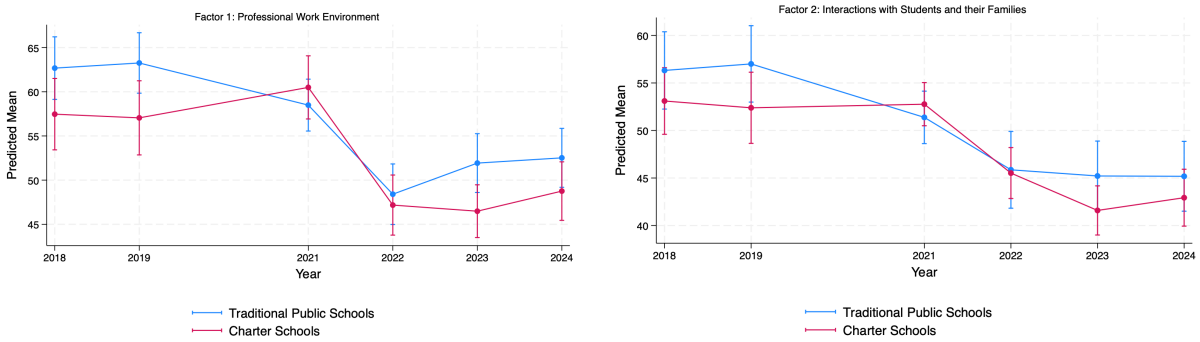
	Charter Schools	Traditional Public Schools
	Mean (Std Dev)	Mean (Std Dev)
Classroom Disruptions	65 (23)	67 (22)
Instructional Leadership	56 (25)	61 (19)
Teacher-Principal Trust	50 (23)	53 (19)
Collaborative Practices	65 (25)	68 (19)
Collective Responsibility	55 (26)	57 (20)
Teacher Influence	35† (15)	43 (14)
Teacher Innovation	53 (28)	57 (23)
Program Coherence	60† (23)	69 (19)
Parent Influence on Decision Making in Schools	57† (22)	69 (19)
Parent Involvement in School	60 (22)	58 (22)
Student Responsibility	53 (20)	58 (20)
Quality Professional Development	62† (29)	77 (21)
Reflective Dialogue	66 (24)	69 (20)
School Commitment	38† (22)	49 (20)
Quality of Student Discussion	57† (26)	66 (26)
Socialization of New Teachers	71† (27)	77 (19)
Teacher-Parent Trust	59 (25)	62 (25)
Teacher-Teacher Trust	60 (24)	64 (19)
Teacher Safety	43 (19)	46 (20)
Expectations for Postsecondary Education	70* (20)	62 (20)
Factor 1: Professional Work Environment	57† (21)	63 (16)
Factor 2: Interactions with Children and Families	52 (19)	57 (19)

Notes: The reported means and standard deviations are teacher-weighted averages based on school-level survey Measures. The standard deviations presented in the table reflect the original survey scale, in which 20 points correspond to one standard deviation in the 2013 distribution.

* indicates that the charter school value is statistically larger than the value for traditional public schools at the 5 percent level, indicating a charter advantage

† indicates that the charter school value is statistically smaller than the value for traditional public schools at the 5 percent level, indicating a charter disadvantage.

Figure 1. Trends in teacher working-condition indices in charter and traditional public schools, 2018 to 2024.



Note: This figure reports fitted values from teacher-weighted regressions for charter and traditional public schools, which are mathematically equivalent to teacher-weighted means. The error bands are constructed using school-clustered standard errors.

Appendix A: Brief description of matching model

To identify schools operating in similar contexts, we match each charter school in the state to a traditional public school on total enrollment and the racial-ethnic and socioeconomic composition of students during school year 2018-2019. We execute the match using a simple propensity score specification in which we predict charter status as follows:

$$CHARTER_i \sim \alpha_0 + \alpha_1 ENROLLMENT_i + \alpha_2 RACE_i + \alpha_3 POVERTY_i + \alpha_4 URBAN_i + \alpha_5 CHICAGO_i + \alpha_6 LEVEL_i + \varepsilon \quad (1)$$

Where $CHARTER$ is a binary variable = 1 if school *i* is a charter school and $ENROLLMENT$ is the number of students enrolled in school *i.* $RACE$ is the percentage of students in each of Asian, Black, Hispanic, White and Other. Our poverty measure is an estimate of the fraction of students from families with incomes at or below 130 percent of the poverty line (Fazlul et al., 2023). Using the Common Core of Data's EDGE locale variable, we create a binary variable, $URBAN,$ to indicate whether the school is located in a city or not. We also include a binary indicator of whether the school is located within the boundry of the Chicago Public Schools (CPS) district, as charters may be geographically within CPS but administratively in their own district. Lastly, we include a variable of school $LEVEL$ to indicate whether the school serves primarily Elementary, Middle or High school students. For this variable, we have simplified the CCD's level indicator to just these three categories.

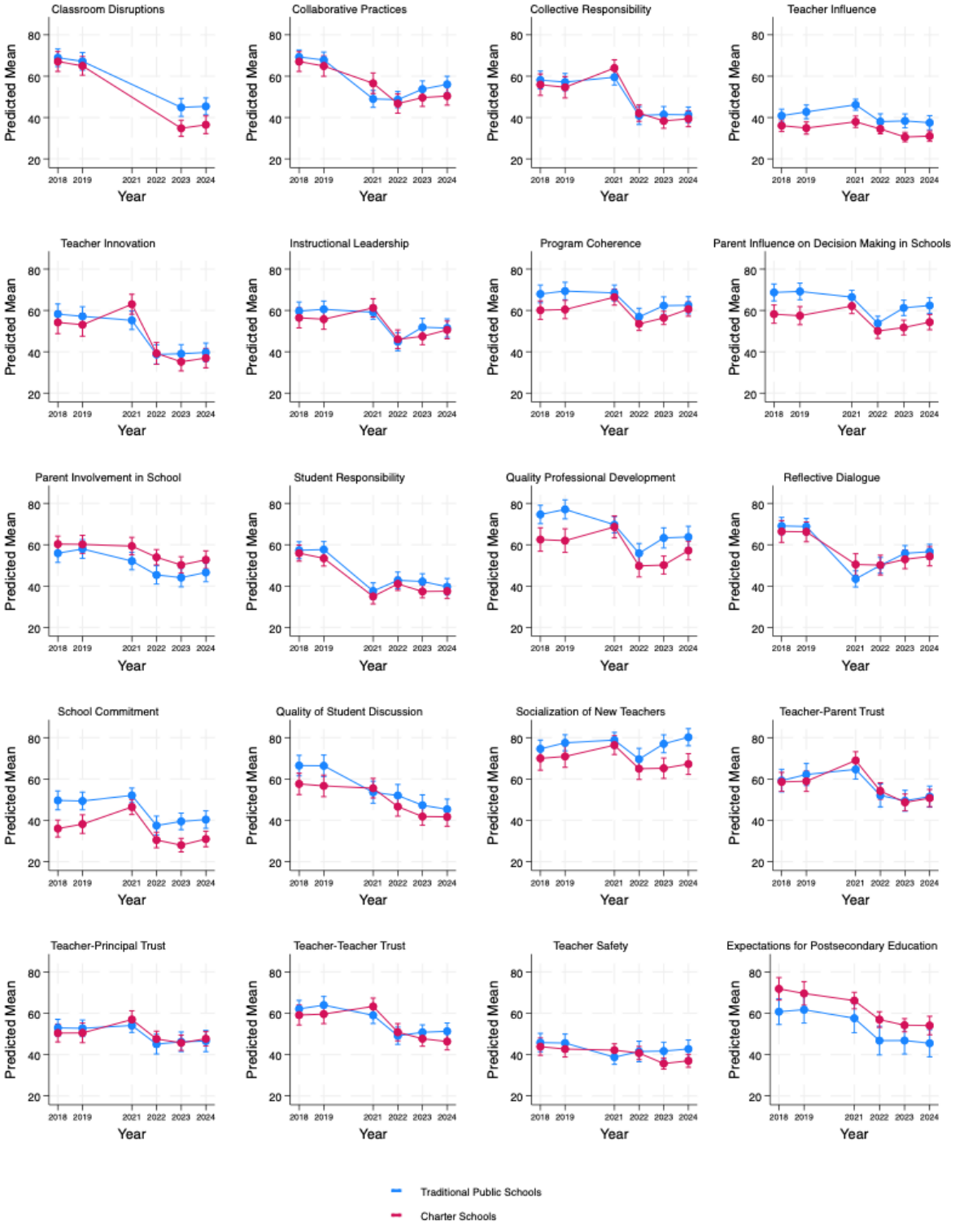
We estimate equation (1) as a logit and use the predicted probabilities to identify the nearest match for each charter school among the (much larger) pool of traditional public schools, without replacement. We also impose a common support restriction where treatment observations whose propensity score is higher than the maximum or less than the minimum propensity score of the controls are dropped.

We refine the matched comparisons in two ways. First, we restrict the matches to occur within Illinois school districts that have at least one charter school. This prevents the inclusion of any traditional public school in an Illinois district without any charter exposure. Second, in our most stringent comparisons, and in light of the fact that the charter sector in Illinois is predominantly in Chicago, we restrict the sample to Chicago schools only for both charter and traditional public schools.

The balance on observables between charter schools and traditional public schools in our matched samples (State, District, Chicago) confirms the comparability achieved by our matching protocol.

Appendix B: Measure-by-Measure Trends

Appendix Figure B1: Measure-by-Measure trends in teacher working conditions.



Note. The error bands are constructed using school-clustered standard errors.

Appendix C: List of 5E Survey Questions

Appendix Table C1. Items in each 5E Survey Measure. Measures are listed in the same order as in Table 5 in the main text.

Survey Measure	Survey Item
Level of Classroom Disruptions	How many of the students in your class regularly refuse to respond when addressed? How many of the students in your class regularly use inappropriate language during class? How many of the students in your class regularly threaten you verbally? How many of the students in your class regularly do off-task things (e.g., play games, text, talk on cell phone) during instructional time? How many of the students in your class regularly create serious behavior problems in your class?
Instructional Leadership	Please indicate the extent to which you disagree or agree with the following: A member of the school leadership team makes clear to the staff the leadership's expectations for meeting instructional goals. Please indicate the extent to which you disagree or agree with the following: A member of the school leadership team communicates a clear vision for our school. Please indicate the extent to which you disagree or agree with the following: A member of the school leadership team presses teachers to implement what they have learned in professional development. Please indicate the extent to which you disagree or agree with the following: A member of the school leadership team knows what's going on in my classroom. Please indicate the extent to which you disagree or agree with the following: A member of the school leadership team provides me with useful feedback to improve my teaching. Please indicate the extent to which you disagree or agree with the following: A member of the school leadership team has provided me with the support I need to improve my teaching.
Teacher-Principal Trust	To what extent do you feel respected by your principal? Please indicate the extent to which you disagree or agree with the following: The principal has confidence in the expertise of the teachers Please indicate the extent to which you disagree or agree with the following: I trust the principal at his or her word. Please indicate the extent to which you disagree or agree with the following: It's OK in this school to discuss feelings, worries, and frustrations with the principal. Please indicate the extent to which you disagree or agree with the following: The principal takes a personal interest in the professional development of teachers. Please indicate the extent to which you disagree or agree with the following: The principal looks out for the personal welfare of the faculty members. Please indicate the extent to which you disagree or agree with the following: The principal places the needs of children ahead of personal and political interests. Please indicate the extent to which you disagree or agree with the following: The principal at this school is an effective manager who makes the school run smoothly.
Collaborative Practices	This school year, how often have you observed another teacher's class to offer feedback? This school year, how often have you observed another teacher's class to get ideas for your own instruction? This school year, how often have you gone over student assessment data with other teachers to make instructional decisions? This school year, how often have you worked with other teachers to develop materials or activities for particular classes?

	This school year, how often have you worked on instructional strategies with other teachers?
Collective Responsibility	How many teachers in this school take responsibility for improving the school? How many teachers in this school feel responsible to help each other do their best? How many teachers in this school feel responsible that all students learn? How many teachers in this school feel responsible for helping students develop self-control? How many teachers in this school feel responsible when students in this school fail? How many teachers in this school help maintain discipline in the entire school, not just their classroom?
Teacher Influence	How much influence do teachers have over: Planning how discretionary school funds should be used. How much influence do teachers have over: Determining which books and other instructional materials are used in classrooms. How much influence do teachers have over: Establishing the curriculum and instructional program. How much influence do teachers have over: Determining the content of in-service programs. How much influence do teachers have over: Setting standards for student behavior.
Teacher Innovation	How many teachers in this school are really trying to improve their teaching? How many teachers in this school are willing to take risks to make the school better? How many teachers in this school are eager to try new ideas? Please indicate the extent to which you disagree or agree with the following: In this school, teachers are continually learning and seeking new ideas.
Program Coherence	To what extent do you disagree or agree with the following: Once we start a new program in this school, we follow up to make sure that it's working. To what extent do you disagree or agree with the following: Curriculum, instruction, and learning materials are well coordinated across different grade levels at this school. To what extent do you disagree or agree with the following: There is consistency in curriculum, instruction, and learning materials among teachers in the same grade level at this school. To what extent do you disagree or agree with the following: We have so many different programs in this school/center that I can't keep track of them all. To what extent do you disagree or agree with the following: Many special programs come and go at this school.
Parent Influence on Decision Making in School	To what extent does this school involve parents/guardians in the development of programs aimed at improving students' academic outcomes? To what extent does this school involve parents/guardians in commenting on school curricula? To what extent does this school include parent leaders from all backgrounds in school improvement efforts? To what extent does this school develop formal networks to link all families with each other (e.g., sharing parent directories, providing a website for parents/guardians to connect with one another, etc.)? To what extent does this school encourage more involved parents/guardians to reach out to less involved parents/guardians?
Parent Involvement in School	For the students you teach this year, how many of their parents/guardians attended parent-teacher conferences when you requested them? For the students you teach this year, how many of their parents/guardians volunteered time to support the school (e.g., volunteer in classrooms, help with school-wide events, etc.)? For the students you teach this year, how many of their parents/guardians contacted you about their child's performance? For the students you teach this year, how many of their parents/guardians responded to your suggestions for helping their child?
Student Responsibility	How many of the students in your {specific} class come to class on time? How many of the students in your {specific} class attend class regularly? How many of the students in your {specific} class come to class prepared with the appropriate supplies and books?

	How many of the students in your {specific} class regularly pay attention in class? How many of the students in your {specific} class actively participate in class activities? How many of the students in your {specific} class always turn in their homework?
Quality Professional Development	Please indicate the extent to which you disagree or agree with the following: Overall, my professional development experiences this year have been sustained and coherently focused, rather than short-term and unrelated. Please indicate the extent to which you disagree or agree with the following: Overall, my professional development experiences this year have included enough time to think carefully about, try, and evaluate new ideas. Please indicate the extent to which you disagree or agree with the following: Overall, my professional development experiences this year have been closely connected to my school's improvement plan. Please indicate the extent to which you disagree or agree with the following: Overall, my professional development experiences this year have included opportunities to work productively with colleagues in my school. Please indicate the extent to which you disagree or agree with the following: Overall, my professional development experiences this year have included opportunities to work productively with teachers from other schools.
Reflective Dialogue	Please indicate the extent to which you disagree or agree with the following: Teachers talk about instruction in the teachers' lounge, faculty meetings, etc. Please indicate the extent to which you disagree or agree with the following: Teachers in this school share and discuss student work with other teachers. This school year, how often have you had conversations with colleagues about the following: What helps students learn the best. This school year, how often have you had conversations with colleagues about the following: Development of new curriculum. This school year, how often have you had conversations with colleagues about the following: The goals of this school. This school year, how often have you had conversations with colleagues about the following: Managing classroom behavior.
School Commitment	Please indicate the extent to which you disagree or agree with the following: I usually look forward to each working day at this school. Please indicate the extent to which you disagree or agree with the following: I wouldn't want to work in any other school. Please indicate the extent to which you disagree or agree with the following: I feel loyal to this school. Please indicate the extent to which you disagree or agree with the following: I would recommend this school to parents seeking a place for their child.
Quality of Student Discussions	In discussions that occur in your {specific} class, how often does the following occur? Students build on each other's ideas during discussion. In discussions that occur in your {specific} class, how often does the following occur? Students use data and text references to support their ideas. In discussions that occur in your {specific} class, how often does the following occur? Students show each other respect. In discussions that occur in your {specific} class, how often does the following occur? Students provide constructive feedback to their peers and to me. In discussions that occur in your {specific} class, how often does the following occur? Most students participate in the discussion at some point.
Socialization of New Teachers	Please indicate the extent to which you disagree or agree with the following: Experienced teachers invite new teachers into their classes to observe, give feedback, etc. Please indicate the extent to which you disagree or agree with the following: A conscious effort is made by faculty to make new teachers feel welcome here. How many teachers are assigned a mentor teacher when they first begin working at this school?
Teacher-Parent Trust	How many teachers in this school feel good about parents' support for their work?

	For the students you teach this year, how many of their parents/guardians support your teaching efforts? For the students you teach this year, how many of their parents/guardians do their best to help their children learn? To what extent do you feel respected by the parents of your students? Please indicate the extent to which you disagree or agree with the following: Teachers and parents at this school think of each other as partners in educating children. Please indicate the extent to which you disagree or agree with the following: Staff at this school work hard to build trusting relationships with parents.
Teacher-Teacher Trust	To what extent do you feel respected by other teachers at this school? Please indicate the extent to which you disagree or agree with the following: Teachers in this school trust each other. Please indicate the extent to which you disagree or agree with the following: It's OK in this school to discuss feelings, worries, and frustrations with other teachers. Please indicate the extent to which you disagree or agree with the following: Teachers respect other teachers who take the lead in school improvement efforts. Please indicate the extent to which you disagree or agree with the following: Teachers at this school respect those colleagues who are experts at their craft.
Teacher Safety	To what extent is the following a problem at your school: Physical conflicts among students To what extent is the following a problem at your school: Robbery or theft To what extent is the following a problem at your school: Gang activity To what extent is the following a problem at your school: Disorder in classrooms To what extent is the following a problem at your school: Disorder in hallways To what extent is the following a problem at your school: Student disrespect of teachers To what extent is the following a problem at your school: Threats of violence toward teachers
Expectations for Postsecondary Education	Please indicate the extent to which you disagree or agree with the following: Teachers expect most students in this school to go to college. Please indicate the extent to which you disagree or agree with the following: Teachers at this school help students plan for college outside of class time. Please indicate the extent to which you disagree or agree with the following: The curriculum at this school is focused on helping students get ready for college. Please indicate the extent to which you disagree or agree with the following: Most of the students in this school are planning to go to college. Please indicate the extent to which you disagree or agree with the following: Teachers in this school feel that it is a part of their job to prepare students to succeed in college.

Notes: Individual survey items are the items used on the 2023 5E Survey.

Appendix D: Replication of Main Results in Chicago Only

Appendix Table D1. Replication of Table 5 in the main text, using the sample of matched charter and traditional public schools in Chicago.

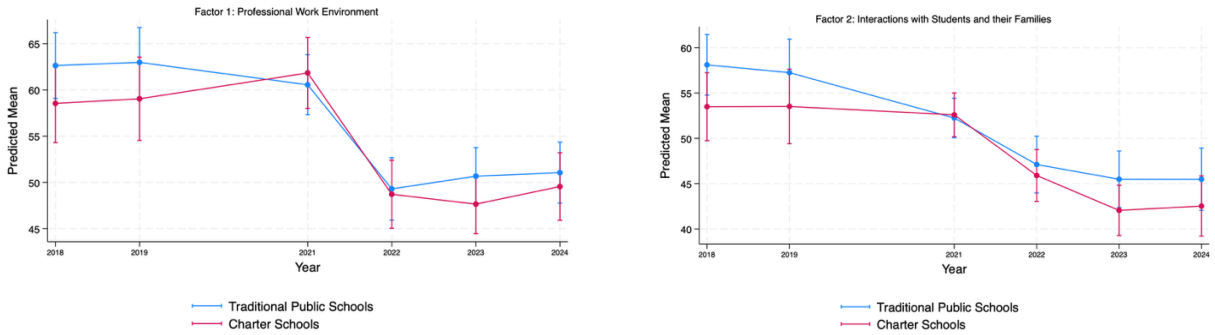
	Charter Schools	Traditional Public Schools
	Mean (Std Dev)	Mean (Std Dev)
Classroom Disruptions	65 (23)	68 (21)
Instructional Leadership	58 (24)	61 (21)
Teacher-Principal Trust	52 (24)	51 (20)
Collaborative Practices	68 (24)	69 (19)
Collective Responsibility	57 (26)	56 (21)
Teacher Influence	35† (15)	43 (15)
Teacher Innovation	56 (27)	54 (24)
Program Coherence	63 (22)	68 (19)
Parent Influence on Decision Making in Schools	59† (21)	71 (18)
Parent Involvement in School	62 (22)	59 (20)
Student Responsibility	54 (19)	57 (18)
Quality Professional Development	64† (29)	79 (20)
Reflective Dialogue	68 (24)	69 (20)
School Commitment	38† (22)	48 (21)
Quality of Student Discussion	58† (25)	67 (24)
Socialization of New Teachers	72 (26)	74 (23)
Teacher-Parent Trust	60 (25)	63 (22)
Teacher-Teacher Trust	62 (24)	63 (21)
Teacher Safety	43 (20)	46 (18)
Expectations for Postsecondary Education	70 (20)	64 (17)
Factor 1: Professional Work Environment	59 (21)	63 (17)
Factor 2: Interactions with Children and Families	54 (19)	57 (17)

Notes: The reported means and standard deviations are teacher-weighted averages based on school-level survey Measures. The standard deviations presented in the table reflect the original survey scale, in which 20 points correspond to one standard deviation in the 2013 distribution.

* indicates that the charter school value is statistically larger than the value for traditional public schools at the 5 percent level, indicating a charter advantage

† indicates that the charter school value is statistically smaller than the value for traditional public schools at the 5 percent level, indicating a charter disadvantage.

Appendix Figure D1. Replication of Figure 1 in the main text, using the sample of matched charter and traditional public schools in Chicago.



Note. This figure reports fitted values from teacher-weighted regressions for charter and traditional public schools, which are mathematically equivalent to teacher-weighted means. The error bands are constructed using school-clustered standard errors.