

Educator Shortage Survey

2022-2023 Academic Year

Chronic Teacher Shortages Continue: Districts Struggle to Find Qualified Teachers

Shereen Oca Beilstein^a

Tom Withee^b

learning loss early entry
workload train
sick days pipeline



NOWHIRING



PART OF THE UNIVERSITY OF ILLINOIS SYSTEM



GOSHEN EDUCATION
CONSULTING



ROE
LeadHUBS

STRONG LEADERS | STRONGER SCHOOLS

Chronic Teacher Shortages Continue: Districts Struggle to Find Qualified Teachers

Shereen Oca Beilstein^a, Tom Withee^b

Abstract

Data from the annual Educator Shortage Survey conducted by the Illinois Association of Regional Superintendents of Schools indicate that the burden on public schools to find qualified teachers was significantly more challenging during Fall 2022 than in previous years. Data from the Illinois State Board of Education confirm that the proportion of posted teacher positions reported by districts as unfilled increased substantially from previous years. A major implication of teacher shortages is inequitable student access to high-quality teachers. Targeted strategies are greatly needed to bolster the supply of qualified teachers in areas with deep and persistent shortages.

Context

Since the onset of the COVID-19 pandemic in Spring 2020, stories about escalating teacher resignations—and in turn, worsening teacher shortages—have been consistently featured in media outlets at all levels, from local newspapers to national magazines.

During the pandemic, teachers faced a host of difficult and radical changes to their working conditions that included shifts in instructional modalities, expanded workloads, and heightened health risks, among other challenges. Early surveys conducted in Fall 2020 and Winter 2021 indicated that as many as one in three educators were considering early resignation due to untenable levels of elevated stress and burnout (EdWeek Research Center, 2020; Illinois Education Association, 2020; Steiner & Woo, 2021). A more recent survey, conducted in Winter 2022, suggests that teachers are still struggling as schools continue to recover from the pandemic. Even more educators reported experiencing high stress and burnout, with one in two educators (55%) considering early resignation (National Education Association, 2022).

Teacher shortages occur when districts and schools cannot fill open positions with qualified educators who hold the license or certificate required for the position (Sutcher et al., 2016). In this report, we examine teacher shortages using three measures, wherein the first two measures capture the magnitude of staffing challenges, and the third captures the severity: (1) *unfilled positions*, which were job openings left vacant; (2) *underfilled positions*, which were job openings occupied by a less-than-qualified hire; and (3) *perceptions of shortage severity*, which were self-reported ratings from district superintendents of teacher shortages in their area.

In Illinois, discussions about teacher shortages have been taking place since well before the pandemic (e.g., Illinois State Board of Education, 2011, 2014), and recent research has shown that the

^a Shereen Oca Beilstein, Ph.D., Research Specialist, Illinois Workforce and Education Research Collaborative (IWERC) at University of Illinois. At IWERC, Shereen researches the factors that support the recruitment and retention of a diverse, high-quality teacher workforce in Illinois.

^b Tom Withee, Senior Researcher, Goshen Education Consulting, Inc. Tom is an educational researcher and program evaluator with expertise in STEM education and data visualization.

magnitude and severity of teacher shortages vary by county (Beilstein & Withee, 2022a), district (Bruno, 2022), content area (Beilstein & Withee, 2022b), and grade band (Beilstein & Withee, 2022c).

Given the intense toll of the pandemic on teachers’ mental health and working conditions, we ask the following research questions:

1. What is the current magnitude and severity of teacher shortages statewide?
2. How have teacher shortages changed over time, relative to the pandemic?

To answer these questions, we triangulate longitudinal data collected by the Illinois Association of Regional Superintendents of Schools (IARSS), the Illinois State Board of Education (ISBE), and the Teacher Retirement System (TRS) of the State of Illinois. Our high-level analysis considers district superintendents’ perceptions of teacher shortages as well as data on unfilled and underfilled positions, retention rates, retirement rates, and enrollment and completion of in-state teacher preparation programs (TPPs).

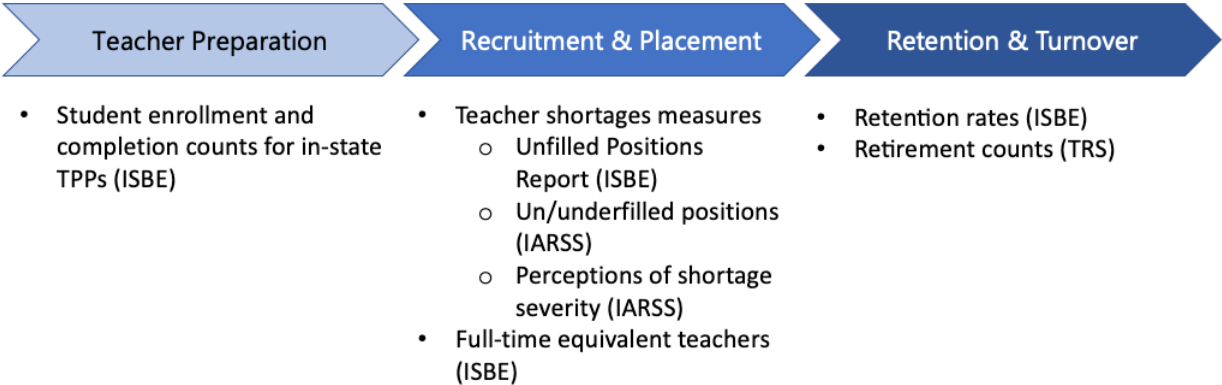
We find that, compared to the previous five years, districts faced greater challenges staffing open teacher positions in the 2022-2023 school year (SY2023), as evidenced by substantially larger proportions of unfilled positions (ISBE, 2023) and underfilled positions (IARSS, 2023). Results also suggest that district superintendents’ worry over the severity of teacher shortages are chronic, as ratings during post-pandemic years were comparable to pre-pandemic years, replicating and extending a previous report we published last year (Beilstein & Withee, 2022a).

This report is the first in a series of white papers that examine educator shortages in Illinois. Subsequent reports will focus on superintendents’ reported causes of and solutions to help offset staffing challenges (IARSS, 2023). Our goal with this series is to provide policymakers, education leaders, and other stakeholders with research that can aid decisions around addressing educator shortages and investing in the teaching profession to support a high-quality and diverse educator workforce.

Methods

We collected current and historical survey and administrative data from multiple sources, dating back primarily to SY2018. We use these data sources to assess three aspects of the teacher workforce: teacher preparation; recruitment and placement; and retention and turnover (see Figure 1).

Figure 1. Description of data sources collected for this report.



First, we examine recruitment and placement of teachers through three measures of teacher shortages—unfilled positions, underfilled positions, and perceptions of shortage severity—from the IARSS Educator Shortage Survey (IARSS, 2023) and ISBE Unfilled Positions Report (ISBE, 2023). These three measures constitute our most up-to-date data, providing information on the magnitude and severity of teacher shortages through the current school year, SY2023. Second, we focus on teacher retention and turnover using retention rates from ISBE’s Illinois Report Card (ISBE, 2022c) and yearly retirement counts from TRS (TRS, 2022) through SY2022. Third, we conclude with a forward look at the potential future teacher workforce by weighing student enrollment data from in-state TPPs, the data source of which was ISBE’s Illinois Educator Preparation Profiles (IEPP), from SY2016 to SY2021 (ISBE, 2022b).

By examining these different datasets, both separately and together, we aim to provide a high-level view of the state of the Illinois teacher workforce. We note that this analysis is not comprehensive, as these measures reflect just a few of the many factors [e.g., placement of teachers who completed out-of-state TPPs (Krim & Withee, forthcoming), placement of teachers who completed alternative licensure programs, etc.] that contribute to the teacher workforce. Below we detail the data sources used in this analysis, highlight their contribution to our understanding, and note the areas where they overlap.

Data Sources

Recruitment and Placement – Teacher Shortage Measures

IARSS Educator Shortage Survey. Every year since SY2018, IARSS has administered the Educator Shortage Survey in the fall to all public-school superintendents across Illinois (IARSS, 2023). The survey assesses the impact of the educator supply on district operations such as open positions and class offerings. In Fall 2022, 690 of 858 district superintendents (80% response rate) completed the SY2023 survey. This year’s response rate, which was the highest in the past five years, was similar to the response rate from last year. Chicago Public Schools was among the districts that did not participate this year or in previous years.

For this report, we highlight two measures from the IARSS Educator Shortage Survey: (1) superintendents’ perceptions of the severity of teacher shortages; and (2) superintendent reports of the extent to which posted teacher positions were filled in their districts, wherein we calculate the percent of posted teacher positions reported by superintendents as unfilled and underfilled (i.e., *un/underfilled*).

ISBE Unfilled Positions Report. This annual report provides information on the amount of unfilled full-time equivalent (FTE) teacher positions that were recorded by districts across the state (ISBE, 2023)^c. Comparable to the IARSS Educator Shortage Survey, ISBE asks districts to report their unfilled positions in the fall for that school year (i.e., data collected in Fall 2022 are representative of SY2023). Please note that we pulled not only the count of unfilled teacher positions from the SY2023 Unfilled Positions Report but also the numbers they report for filled FTE teacher positions and estimated vacancy rate.

^c Our analysis of ISBE’s Unfilled Positions data excludes Special Education Districts/Cooperatives and Vocational Districts/Schools.

ISBE Illinois Report Card. This annual report includes statewide data on student enrollments, school types, student and teacher demographics, and more (ISBE, 2022c). Here, we incorporate data on current and historical filled FTE teacher positions.

We combine both ISBE data sources to measure the magnitude of teacher shortages by calculating the percent of total teacher positions (i.e., the sum of unfilled and filled positions) reported unfilled, referred to as *vacancy rate* (see e.g., Goldhaber et al., 2020; Wilson & Pearson, 1993).

A notable distinction between how we use IARSS and ISBE data to measure the magnitude of teacher shortages is that the former parses out the amount of posted teacher positions that were underfilled. Please see the Appendix for a description of the variables each organization collects around teacher shortages.

Retention and Turnover Measures

ISBE Illinois Report Card. ISBE also reports teacher retention rates yearly, which is defined as “the three-year average of the percentage of full-time teachers returning to the same school from the previous year. Teacher retention rate at the district level is the total number of full-time teachers returning to the same school in the past three years, divided by the total number of full-time teachers from the past three years” (ISBE, 2022a).

Teacher Retirement System of the State of Illinois. TRS records the number of retirements per fiscal year (FY) starting in July one year and ending in June the following year (e.g., FY2018 refers to July 2017 to June 2018; TRS, 2022). Though the retention rates reported by ISBE (2020a) captures retirements, we also use counts of retirements from TRS to understand teacher shortages because retirements from one year can contribute to unfilled positions the next year (i.e., the positions teachers retired from in SY2022 can result in open positions—and possibly unfilled or underfilled positions—in SY2023). The data provided to us from TRS reflect the number of retirement claims processed within a given FY.

Teacher Preparation Measure

Illinois Educator Preparation Profiles. This annual report includes information on enrollment and completion of in-state TPPs, among other data elements (ISBE, 2022b). ISBE provided us with yearly counts for three groups of TPP students: (1) *new enrollments*, which includes students who were in their first-year of study; (2) *active enrollments*, which includes students who were enrolled in a TPP, but who were not new and who have not yet completed their requirements; and (3) *completions*, which includes students who finished the requirements for their TPP.

Acronym and Abbreviation Glossary

- **FTE** – Full-time equivalent (used by ISBE to report staffing numbers)
- **FY** – Fiscal year (e.g., FY2018 refers to the fiscal year that spans July 2017 – June 2018)
- **IARSS** – Illinois Association of Regional Superintendents of Schools
- **IEPP** – Illinois Educator Preparation Profiles system, which provides data on in-state teacher preparation programs
- **ISBE** – Illinois State Board of Education
- **SY** – School year (e.g., SY2018 refers to the school year that spans Fall 2017 to Spring 2018)

Results

Severity and Magnitude of Teacher Shortages

IARSS Educator Shortage Survey

According to the IARSS Educator Shortage Survey, in Fall 2022, 79% (540 of 688) of district superintendents indicated that they were experiencing minor to serious problems addressing teacher shortages (IARSS, 2023). In addition, 28% (2,175 of 7,787) of posted teacher positions in responding districts were reported un/underfilled by superintendents^d. These two measures suggest that a large majority of districts across the state were struggling to staff open teacher positions for SY2023.

Below, we place this year’s findings from the IARSS Educator Shortage Survey in historical context, comparing the severity (Figure 2), captured through superintendents’ ratings of severity, and magnitude (Figure 3), captured through percent of posted teacher positions reported un/underfilled, of teacher shortages from SY2018 to SY2023.

Perceptions of Shortage Severity. Figure 2 shows that superintendents’ perceptions of the severity of teacher shortages appears relatively stable over time, with average ratings ranging from 3.0 to 3.7. A comparison of the years before (SY2018 - 2020) and after (SYs 2021 – 2023) the onset of the COVID-19 pandemic in Spring 2020 demonstrates that superintendents’ average ratings post-pandemic were no higher than those pre-pandemic. This comparison indicates that teacher shortages have been a persistent worry for superintendents over time.

Un/Underfilled Teacher Positions. Compared to superintendents’ ratings of severity, the magnitude of teacher shortages—measured by the percent of posted teacher positions reported un/underfilled—shows more variation over time, ranging from 14% to 39% (see trend line in Fig 3). More specifically, a look at pre-pandemic (SYs 2018 - 2020) and post-pandemic (SYs 2021 – 2023) years shows contrasting trends for the percent of posted teacher positions reported un/underfilled.

Figure 2. Superintendents' average rating of the severity of teacher shortages

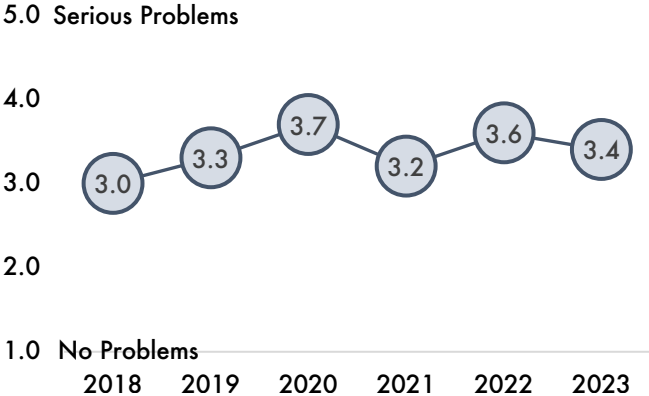
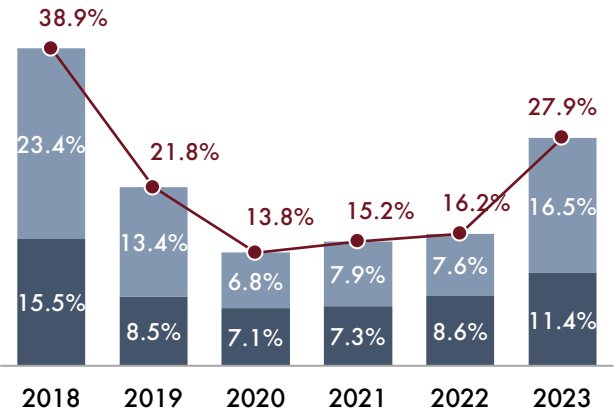


Figure 3. Percent of posted teacher positions reported as unfilled, underfilled and un/underfilled



^d In this analysis of the IARSS Educator Shortage Survey data, teacher positions include both general and special education programs.

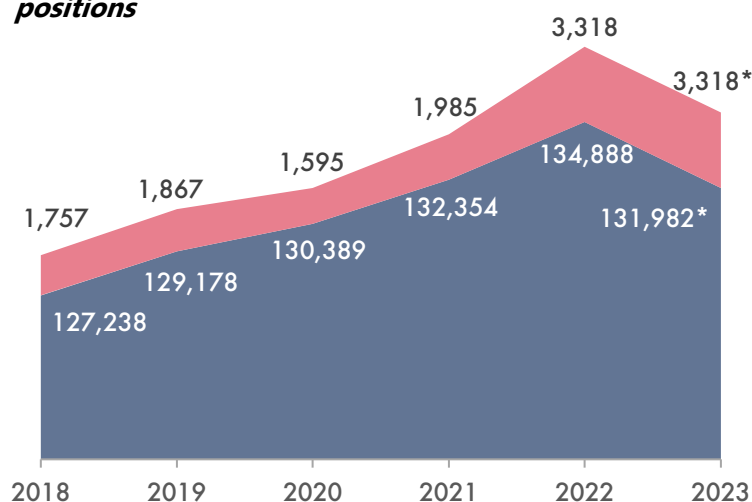
Before the pandemic, the percent of un/underfilled positions dropped substantially from 39% in SY2018 to 14% in SY2020. After the pandemic’s onset, there was a slight uptick of 1 percentage point from 15% in SY2021 to 16% in SY2022. The percent of un/underfilled teacher positions, however, substantially rose to 28% in SY2023, which marks the second highest figure reported by the IARSS Educator Shortage Survey over the past five years, with the highest of 39% in SY2018.

Focusing on post-pandemic years, a deeper comparison demonstrates that both the percent of unfilled and underfilled positions increased considerably in SY2023 (see **dark** and **light blue** bars, respectively, in Figure 3). The percent of posted of unfilled positions increased from 9% in SY2022 to 11% in SY2023, whereas the percent of underfilled positions more than doubled from 8% in SY2022 to 17% in SY2023. Thus, a larger share of the steep rise in the percent of un/underfilled positions for SY2023 was driven by underfilled positions, though we note that the percent of unfilled positions increased as well.

ISBE Teacher Workforce Data

In this section, we use ISBE data (2022c, 2023) to examine trends in the number of unfilled positions recorded statewide. Like the previous section, we continue to evaluate the magnitude of teacher shortages, but with some adjustments due to differences between the IARSS and ISBE datasets (see Appendix). Here, we calculate the percent of total teacher positions (i.e., the sum of unfilled and filled positions) reported by districts as unfilled, referred to as *vacancy rate* (see e.g., Goldhaber et al., 2020; Wilson & Pearson, 1993).

Figure 4. Counts of unfilled and filled FTE teacher positions



Unfilled FTE Teacher Positions.

Regarding unfilled FTE positions (see **pink band**, Figure 4^e), SY2018 to SY2022 saw minor variation in yearly totals, ranging from 1,322 to 1,985 unfilled positions. However, SY2023 experienced a sizeable jump with 3,318 unfilled positions. During pre-pandemic years (SY2018 – SY2020), the count of unfilled positions rose by 545 positions from 1,322 in SY 2018 to 1,985 in SY2020. After the onset of the pandemic, the count of unfilled positions dropped by 272 positions from 1,867 in SY2020 to 1,595 in SY2021. During post-pandemic years

(SY2021 – SY2023), the upward sloping trend continued, albeit considerably so, increasing by 1,723 positions from 1,595 in SY2021 to 3,318 in SY2023.

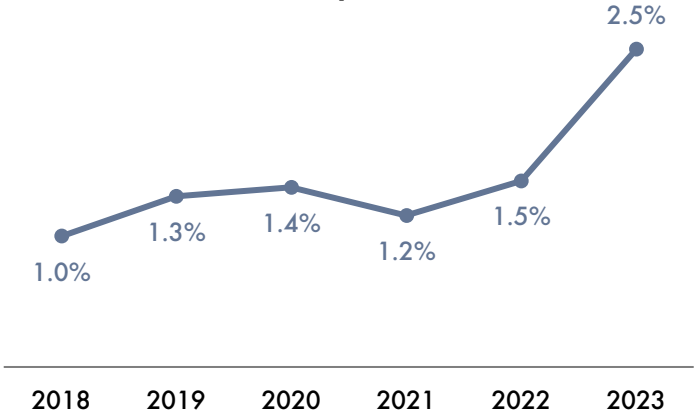
Filled FTE Teacher Positions. Counts for filled FTE teacher positions provide important context for interpreting the numbers of unfilled positions (see **blue band**, Figure 4). Figure 4 shows that yearly totals of filled positions have steadily risen from 127,238 in SY2018 to 134,888 in SY2022. This

^e Figures 3 and 4 include only schools that are part of the Illinois Report Card, which excludes Special Education Districts/Cooperatives and Vocational Districts/Schools.

gradual increase in the size of the Illinois teacher workforce continued through the onset of the pandemic with an increase from 132,354 filled teacher positions in SY2021 to 134,888 in SY2022, followed by a small drop to 131,982 in SY2023.

Vacancy Rates. Combining unfilled and filled FTE teacher positions from Figure 4, we can calculate the vacancy rate (see Figure 5). The overall five-year trend is upward sloping, ranging from 1.0% to 2.5%. Before the pandemic, the vacancy rate increased from 1.0% in SY2018 to 1.4% in SY2020. After the pandemic’s onset, the vacancy rate decreased by .2 percentage points from 1.4% in SY2020 to 1.2% in SY2021. In SY2022, however, the vacancy rate increased by .3 percentage points to 1.5% in SY2022 from the previous year, and in SY2023, the vacancy rate jumped up to 2.5%. SY2023 marks the highest vacancy rate since SY2018 and is considerably higher than vacancy rates observed during pre-pandemic years.

Figure 5. Vacancy rates, calculated as the percent of unfilled teaching positions relative to the total of filled and unfilled teacher positions

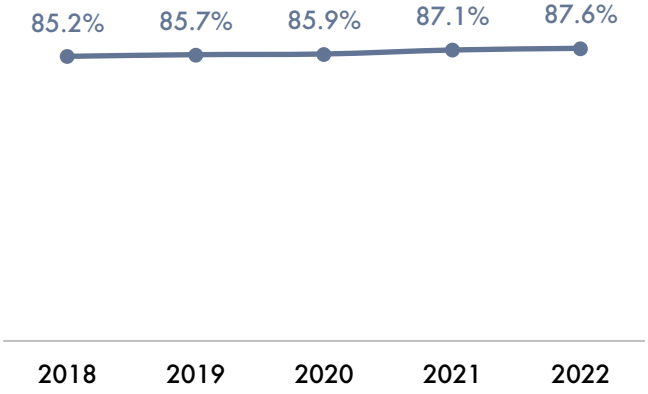


Teacher Retention and Turnover

Retention Rates

Another key element to consider when evaluating the health of our teacher workforce is turnover. When disproportionate numbers of teachers move to other schools or leave the profession entirely, such turnover has been shown to negatively impact schools and their students (Carver-Thomas & Darling-Hammond, 2017; Barnes et al., 2007; Guin, 2004; Ronfelt et al., 2014). In Illinois, statewide retention rates^f remained relatively steady across this four-year period (Figure 6). Over time, retention rates increased by 2.4 percentage points

Figure 6. Average teacher retention rates



^f ISBE defines teacher retention rate as “the three-year average of the percentage of full-time teachers returning to the same school from the previous year. Teacher retention rate at the district level is the total number of full-time teachers returning to the same school in the past three years, divided by the total number of full-time teachers from the past three years” (ISBE, 2022a).

from 85.2% in SY2018 to 87.6% in SY2023 (ISBE, 2022c). However, district-level teacher retention rates tend to vary widely⁹: In SY2022, for example, they ranged from 29.6% to 100%.

Retirement Counts

Although the retention rates shown in the previous figure (Figure 6) account for retirements, we parse the number of yearly retirements in Figure 7 to see how retirements contribute to overall retention rates.

Retirements from one year can also impact posted teacher positions—and potentially unfilled and underfilled positions—the next, as retirements often serve as a top reason for the open teacher positions districts are trying to fill (IARSS, 2022). Although some amount of turnover can be expected from this routine career milestone, teacher shortages can become exacerbated when teachers retire at greater-than-usual rates due to early retirements (National Education Association, 2022) or shifting generational patterns such as a large wave of Baby Boomer retirements (Aaronson & Meckel, 2008).

According to TRS^h, the number of yearly retirements has remained relatively stable during FY2018 to FY2020. Additionally, annual counts of post-pandemic retirements appear no higher than those from pre-pandemic years (Figure 7).

Figure 7. Number of teacher retirements

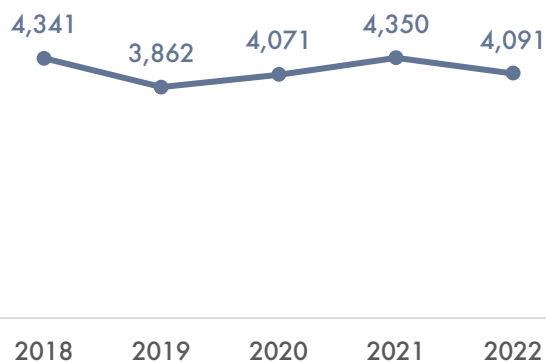
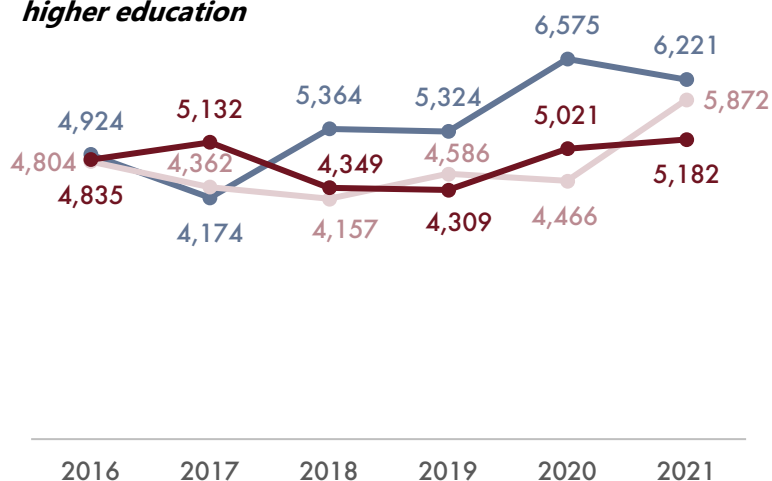


Figure 8. Student new enrollments, active enrollments, and completions of Illinois TPPs at state institutions of higher education



Teacher Preparation

The early teacher pipeline and TPPs help contribute to the size of the teacher workforce (Goldhaber & Holden, 2020). Data from ISBE’s IEPP, which is an accountability system for in-state TPPs, indicate that new enrollments have been trending slightly upward over the past four years (ISBE, 2022b; Figure 8).

Although, we note that the rise in TPP candidates in recent years may be due to the inclusion of more programs in the IEPP system, rather than a substantial rise of students in pursuit of a teaching degree, per correspondence with ISBE.

⁹ Compared to previous years, the variation in district-level teacher retention for SY2022 is relatively consistent with SYs 2018 – 2021, though SYs 2022 and 2021 show a wider range than SYs 2018 – 2020.

^h TRS records retirements using a fiscal calendar starting in July one year and ending in June the following year (e.g., fiscal year 2018 refers to July 2017 to June 2018).

The number of students completing requirements from their TPPs have remained relatively steady during this period, with a small rise from 4,835 completions in SY2016 to 5,182 in SY2021. Similarly, active enrollments have also remained relatively steady during this timeframe, apart from an uptick from SY2020 to SY2021, likely explicable, in part, by the increase in new enrollments the year prior.

Conclusion

We triangulated longitudinal data collected by multiple state organizations (IARSS, ISBE, TRS) with two aims: (1) to understand the current severity and magnitude of teacher shortages in Illinois and (2) to analyze how teacher shortages have changed over time, relative to the pandemic.

Several of the datasets used in this report presented longitudinal trends with minimal variation, including superintendents' perceptions of the severity of shortages, retention, retirements, as well as student enrollments in and completions of TPPs. Data on yearly retention rates and retirement counts through SY2022 suggest that, in Illinois, teachers have not yet left the profession at higher rates since the pandemic's onset. This statewide trend mirrors what researchers have seen on a national level through SY2022 (Aldeman, 2022; Bleiberg & Kraft, 2022).

In addition, minimal variation in superintendents' ratings of shortage severity suggests that staffing challenges—and the difficulties they bring—are long-term issues. And given that trends in students' enrollment in and completion of in-state TPPs have also been relatively stable, these findings stress the need not only to increase efforts that support and retain current educators, but also to grow the teacher workforce.

We did, however, observe a sizable increase in the proportion of unfilled and underfilled teacher positions in SY2023. According to ISBE data for SY2023, the number of unfilled positions and, subsequently, the vacancy rate were the highest observed over the past five years, reaching 3,318 unfilled teacher positions with a 2.5% vacancy rate. Data from the IARSS Educator Shortage Survey confirm this finding, as the percent of unfilled teaching positions found in responding districts also increased considerably from 8.6% in SY2022 to 11.4% in SY2023. In addition, the IARSS Educator Shortage Survey provides another important variable to consider when evaluating the magnitude of teacher shortages—underfilled positions. In SY2023, the percent of underfilled positions also rose dramatically, more than doubling from 8% in SY2022 to 17% in SY2023.

Our comparison of unfilled and underfilled teacher positions indicates that districts faced much greater challenges staffing open teacher positions in Fall 2022 than in the previous five years, which could be due in part to the steady rise in filled FTE teacher positions over this same timeframe (ISBE, 2022c). These results emphasize that more targeted work needs to be done to ensure that classrooms are not just staffed, but that they are staffed by qualified teachers.

In sum, a major implication of teacher shortages is inequitable student access to high-quality teachers. Research has shown that teacher shortages—both unfilled and underfilled positions—tend to be concentrated in different geographic regions (Beilstein & Withee, 2022a; Bruno, 2022), content areas (Beilstein & Withee, 2022b), and schools with larger proportions of students of color and students from low-income families (Cardichon et al., 2020). Thus, targeted strategies are greatly needed to bolster the supply of qualified teachers in areas with deep and persistent shortages. For specific policy recommendations developed by IARSS, please refer to the 2022-23 Educator Shortage Report (IARSS, 2023).

References

- Aldeman, C. (2022, January 17). There is no 'Big Quit' in K-12 education. But schools have specific labor challenges that need targeted solutions. *The 74*.
<https://www.the74million.org/article/aldeman-there-is-no-big-quit-in-k-12-education-but-schools-have-specific-labor-challenges-that-need-targeted-solutions/>
- Barnes, G., Crowe, E., & Schaefer, B. (2007). *The cost of teacher turnover in five school districts: A pilot study*. Oxford, OH: National Commission on Teaching and America's Future.
<https://files.eric.ed.gov/fulltext/ED497176.pdf>
- Beilstein, S. O., & Withee, T. (2022a). *Illinois' persistent educator shortage: Multiple sources point to the same conclusion*. Chicago, IL: Illinois Workforce and Education Research Collaborative, Discovery Partners Institute, University of Illinois and Goshen Education Consulting, Inc.
https://omsdpiproduct.wpenginepowered.com/wp-content/uploads/2022/10/Persistent_Educator.pdf
- Beilstein, S. O., & Withee, T. (2022b). *Chronic teacher shortages: Part 1—Content and geographic areas with high need*. Chicago, IL: Illinois Workforce and Education Research Collaborative, Discovery Partners Institute, University of Illinois and Goshen Education Consulting, Inc.
<https://iarss.org/wp-content/uploads/2022/04/ChronicTeacher.pdf>
- Beilstein, S. O., & Withee, T. (2022c). *Chronic teacher shortages: Part 2—Demand for teachers by grade band*. Chicago, IL: Illinois Workforce and Education Research Collaborative, Discovery Partners Institute, University of Illinois and Goshen Education Consulting, Inc.
<https://dpi.uillinois.edu/applied-research/iwerc/current-projects/il-teacher-shortage/>
- Bleiberg, J., & Kraft, M. A. (2022). *What happened to the K-12 education labor market during COVID? The acute need for better data systems* (EdWorkingPaper: 22-544). Providence, RI: Annenberg Institute at Brown University. <https://doi.org/10.26300/2xw0-v642>
- Bruno, P. (2022). Pandemic-era school staff shortages: Evidence from unfilled position data in Illinois.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4306263
- Cardichon, J., Darling-Hammond, L., Yang, M., Scott, C., Shields, P. M., & Burns, D. (2020). *Inequitable opportunity to learn: Student access to certified and experienced teachers*. Palo Alto, CA: Learning Policy Institute.
https://learningpolicyinstitute.org/media/392/download?inline&file=CRDC_Teacher_Access_Report.pdf
- Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it*. Palo Alto, CA: Learning Policy Institute.
<https://learningpolicyinstitute.org/product/teacherturnover-report>
- EdWeek Research Center. (2020, October 27). Survey tracker: Monitoring how K-12 educators are responding to coronavirus. *Education Week*, section Teaching.
<https://www.edweek.org/teaching-learning/survey-tracker-monitoring-how-k-12-educators-are-responding-to-coronavirus/2020/04>
- Goldhaber, D., & Holden, K. (2020). *Understanding the Early Teacher Pipeline: What We Can (and, Importantly, Can't) Learn from National Data* (CALDER Policy Brief No. 21-1120). Washington, D.C.: National Center for Analysis of Longitudinal Data in Education Research.

<https://caldercenter.org/publications/understanding-early-teacher-pipeline-what-we-can-and-importantly-cant-learn-national>

- Goldhaber, D., Strunk, K. O., Brown, N., Naito, N., & Wolff, M. (2020). Teacher staffing challenges in California: Examining the uniqueness of rural school districts. *AERA Open*, 6(3), 2332858420951833.
- Guin, K. (2004). Chronic teacher turnover in urban elementary schools. *Education Policy Analysis Archives*, 12(42), 1-25.
- Illinois State Board of Education (2011, 2014). Educator supply and demand. <https://www.isbe.net/edsupplydemand>
- Illinois Association of Regional Superintendents of Schools. (2023). *Educator Shortage Survey: Fall 2022 Administration for the 2022-23 Academic Year*. <https://iarss.org/wp-content/uploads/2023/01/IARSS-Educator-Shortage-AY23-230123.pdf>
- Illinois Association of Regional Superintendents of Schools. (2022). *2021 Illinois Educator Shortage Survey*. <https://iarss.org/wp-content/uploads/2022/02/IARSS-2021-Educator-Shortage-220207-1.pdf>
- Illinois Education Association. (2020, Nov. 11). *One-third of Illinois educators considering leaving profession in midst of COVID-19 pandemic* [Press release]. <https://ieanea.org/2020/11/11/one-third-of-illinois-educators-considering-leaving-profession-in-midst-of-covid-19-pandemic/>.
- Illinois State Board of Education. (2022a). *2022 Glossary of Terms*. <https://www.isbe.net/Documents/2022-Glossary-of-Terms.pdf>
- Illinois State Board of Education. (2022b). *Illinois educator preparation profiles*. <https://www.isbe.net/Pages/eppPublic.aspx>ⁱ
- Illinois State Board of Education. (2022c). *Illinois report card*. <https://www.isbe.net/pages/illinois-state-report-card-data.aspx>
- Illinois State Board of Education (2023). *Unfilled positions* (downloaded February 9, 2023). <https://www.isbe.net/unfilledpositions>
- Krim, J., & Withee, T. (Forthcoming 2023). *Does Illinois Import or Export Teachers*. Edwardsville, IL: Goshen Education Consulting.
- National Education Association. (2022, January 31). *Poll results: Stress and burnout pose threat of educator shortages* [Press release]. <https://www.nea.org/sites/default/files/2022-02/NEA%20Member%20COVID-19%20Survey%20Summary.pdf>
- Ronfelt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, 50(1), 4-36.

ⁱ The Illinois Educator Preparation Profiles data that were analyzed in this report were provided from ISBE via personal communication, November 2022. Publicly available data can be retrieved at <https://www.isbe.net/Pages/eppPublic.aspx>.

- Steiner, E. D., & Woo, A. (2021). *Job-related stress threatens the teacher supply: Key findings from the 2021 State of the U.S. Teacher Survey* (RR-A1108-1). Santa Monica, CA: RAND Corporation.
https://www.rand.org/pubs/research_reports/RRA1108-1.html
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* Palo Alto, CA: Learning Policy Institute.
<https://learningpolicyinstitute.org/product/coming-crisis-teaching>
- Teacher Retirement System of Illinois Public Record Center. (2022, FOIA requested data).
- Wilson, A., & Pearson, R. (1993). The problem of teacher shortages. *Education Economics*, 1(1), 69-75.

Appendix

The table below shows differences between available datasets that we used to analyze the magnitude of teacher shortages.

	Most recent available data	Unfilled teacher positions	Underfilled teacher positions	Number posted teacher positions	Number full-time equivalent teachers
IARSS Educator Shortage	SY2023	Yes	Yes	Yes	No
ISBE Unfilled Positions and Illinois Report Card	SY2023	Yes	No	No	Yes