RESEARCH BRIEF
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Protective Role of Specialized Instructional Support Personnel on Teacher Turnover during the COVID-19 Pandemic

INTRODUCTION

Even before the COVID-19 pandemic, teacher burnout and turnover within the U.S. education system were critical challenges requiring urgent attention.[1] However, the pandemic's rapid onset and severity dramatically exacerbated these issues; overall employment in the K-12 sector declined by approximately 9.3 percent in that U.S. at the onset of the pandemic and has remained below pre-pandemic levels.[2] Rates of teacher burnout were even higher than among health professionals over this period.[3] North Carolina experienced significant challenges of its own during this period, with teacher turnover rising from 18% in September 2018-2019 to 21% in September 2020–2021 and 25% in September 2021–2022. Some of the pressures driving burnout and turnover, such as classroom disruptions disciplinary problems, can be alleviated by support personnel (counselors, psychologists and social workers).[4–7] Yet little is known about the potential effects of support personnel on teacher turnover. We examine whether counselors, psychologists and social workers protected schools from teacher turnover in North Carolina—particularly in the wake of the COVID-19 pandemic.[8]

BACKGROUND

Since the onset of the pandemic, teachers have reported abnormally high levels of burnout, with an overall prevalence of 52% across teachers of varying ages, genders, countries, and educational sectors.[3] Burnout is troubling in part because of its link with teacher turnover.[9] A growing body of literature spanning the pre- to post-pandemic periods finds that teacher burnout can be attributed to several factors, including social status degradation for educators, political and social pressures to achieve higher education outcomes, an imbalance between the demand for better outcomes and declining/inadequate resources in schools, challenging student behaviors, and overwhelming administrative work.[3]Administrative overload and worsening student behavior collectively contributed to stress becoming the most frequently-cited reason educators gave for leaving the profession, both before and during the pandemic.[10] In self-reports, teachers have pointed to classroom disruptions as their main stressor, alongside lack of student motivation and problems with maintaining discipline in the classroom.[11] As we elaborate below, support personnel directly alleviate many of these factors that are associated with burnout and turnover.

ROLE OF SUPPORT PERSONNEL IN EDUCATIONAL SETTINGS

Specialized Instructional Support Personnel (SISP or support personnel), as defined by the North Carolina Department of Instruction, are school-based professionals responsible for delivering physical, social, emotional, and mental health services through prevention, intervention, transition, and follow-up support for all students and their families. This group includes school counselors, social workers, psychologists.[12] While each role has distinct responsibilities, their collective goal is to support student well-being and foster a healthy school environment. Counselors develop, implement, and evaluate school-wide programs designed to enhance the school climate. They offer individual and group services, support conflict resolution, and guidance in areas such as social skills, college readiness, and career planning. Social workers collaborate closely with students and families to address basic needs—such as housing and nutrition—that can impact academic performance. Psychologists focus on mental health and learning by conducting assessments, identifying learning disabilities, and implementing classroom-based behavioral support.[8,13]

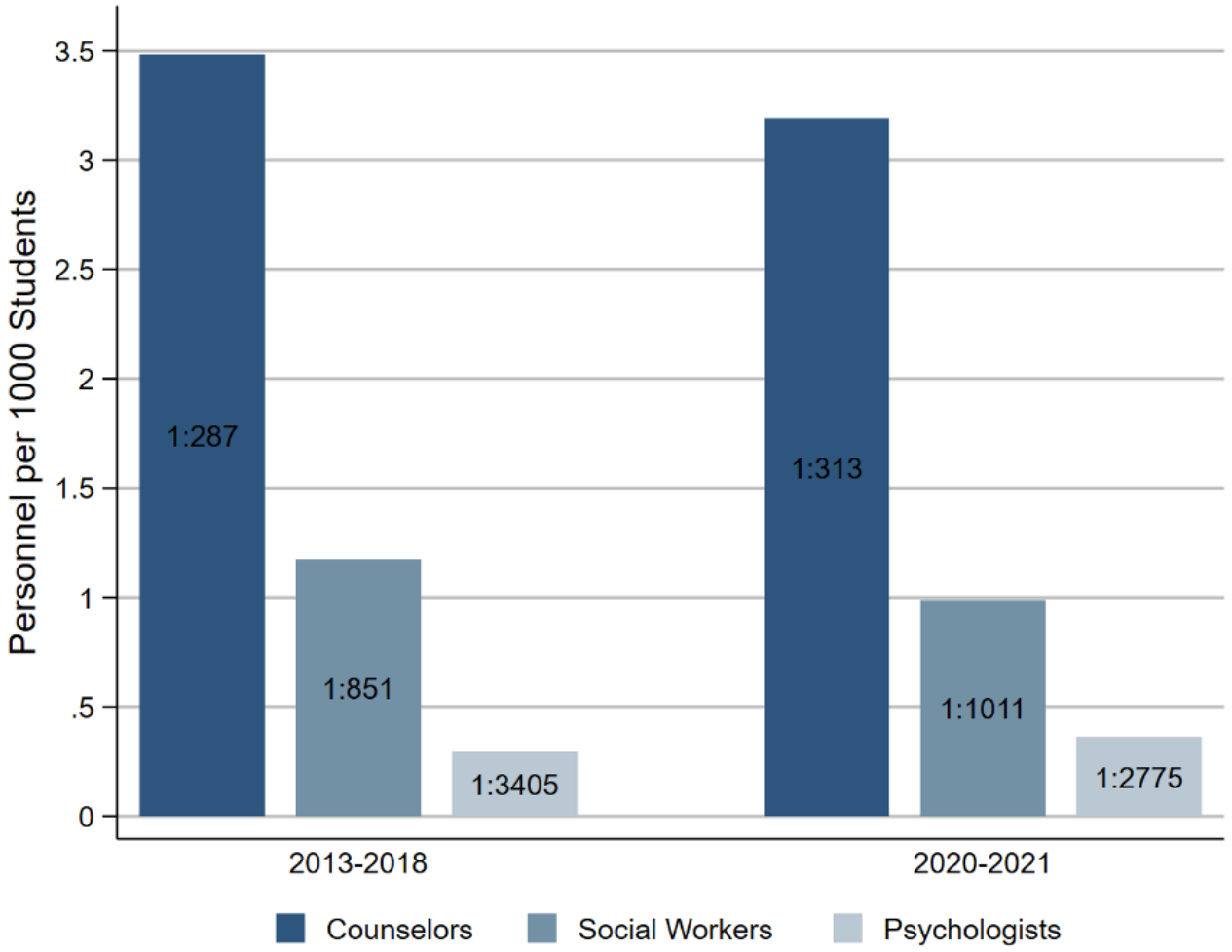
A growing literature finds evidence of benefits of increased access to SISPs for student academic and behavioral outcomes.[5,7,14–17] For example, one study found that hiring an additional counselor led to improved educational achievement, especially for the students in the bottom third of the testing distribution and reductions in behavioral problems.[5] They quantified the impact on academic achievement of hiring an additional counselor to be twice as effective as hiring an additional teacher to reduce class size.[5] They also found reductions in student misbehavior of about 20 percentage points for boys associated with the addition of a counselor.[5] An evaluation of schools implementing the American School Counselor Association (ASCA) model found that schools with more robust counseling programs had higher ACT scores and improved academic outcomes across the board.[15] Another study found that the addition of a counseling policy was associated with a 3 percentage point decline in the fraction of teachers expressing some concern over student misbehavior disrupting teaching.[17] An Indiana study found that a 1:250 ratio of counselors to students yielded the largest gains for attendance, with an approximate 0.3 percentage-point higher attendance (~3 more students per day in a 1,000-student school).[18] A handful of studies using quasi-experimental designs that separate the effects of schools counselors from difficult to measure counfounds by exploiting counselor assignment rules.[16,19,20] These find strong effects on disciplinary infractions[16,19] and 4-year college-going,[19] but no significant effects on student test performance.[16] The evidence on effects of school social workers and psychologists is more limited, potentially due to their lower prevalence in schools which makes it more difficult to detect effects at the school level.[7,14,21]

Given the importance of student behaviors and academic outcomes for teachers, we hypothesize that the presence of SISP, particularly school counselors, would also affect teacher turnover. Teachers themselves already recognize the value of SISP support. In one survey, teachers preferred greater access to counselors and nurses over smaller class sizes or even a 10% pay raise.[22] Below we add to the literature by quantifying the effect of SISP on teacher turnover in North Carolina.

EFFECT OF SUPPORT PERSONNEL ON TEACHER TURNOVER DURING THE PANDEMIC

Figure 1 contrasts support personnel to student ratios in the years leading up to the pandemic in North Carolina (2013/14-2018/19) and the pandemic 2020/21-2021/22.[i.] Larger numbers reflect greater access to support personnel in units of support personnel per 1000 students. We also indicate average support personnel to student ratios in the bars, as these are most readily comparable to national guidelines. We find that student access to counselors and social workers worsened during the pandemic, while access to psychologists improved slightly. The counselor to student ratio increased from 1:287 to 1:313, and the social worker to student ratio rose from 1:851 to 1:1011, meaning each counselor and social worker served more students on average in 2020/21-2021/22. North Carolina lags behind recommendations provided by the national organizations for school counselors (American School Counselors Association), social workers (School Social Work Association of America), and school psychologists (National Association of School Psychologists): 1:250 counselor to students, 1:250 social worker to students, and 1:500 psychologist to students ratios.[23–25]

Figure 1. Support Personnel to Student Ratios Pre-Pandemic and During the Pandemic



Next, we consider how teacher turnover differed in schools by the SISP-to-student ratios in 2018/19 (pre-pandemic). Teacher turnover is defined as the percentage of teachers who leave a teaching role at a school, including those who exit teaching in North Carolina public schools, move into administrative roles, or transfer to another school. We hypothesize that schools which had more access to SISP would be better equipped to deal with the significant learning loss and socioemotional challenges of the pandemic. As a result, we expect to see that turnover would increase less in schools that had more SISPs per student.

Figure 2 shows how turnover differed from pre- to post-pandemic for schools with above median counselors per student compared to schools with below median counselors per student pre-pandemic. We focus on 2021/22 for our post pandemic year, as this year represents an approximate return to normal in person schools for most school districts when teacher turnover was particularly high. We find that turnover increased significantly in schools from pre- to post-pandemic, consistent with other research, and the increases were slightly smaller in school with more counselors per students (3 percentage point increase in turnover compared to 4.7 percentage point increase in turnover). Figure 3 shows smaller differences in turnover for above-median (3.6 percentage points) and below-median social workers to students (4.3 percentage points). Figure 4 shows very similar changes in turnover for schools with above and below-median school psychologists per student (4.2 to 4.0 percentage points).

Figure 2. Teacher Turnover by Below and Above Median Counselors per Student in 2018/19

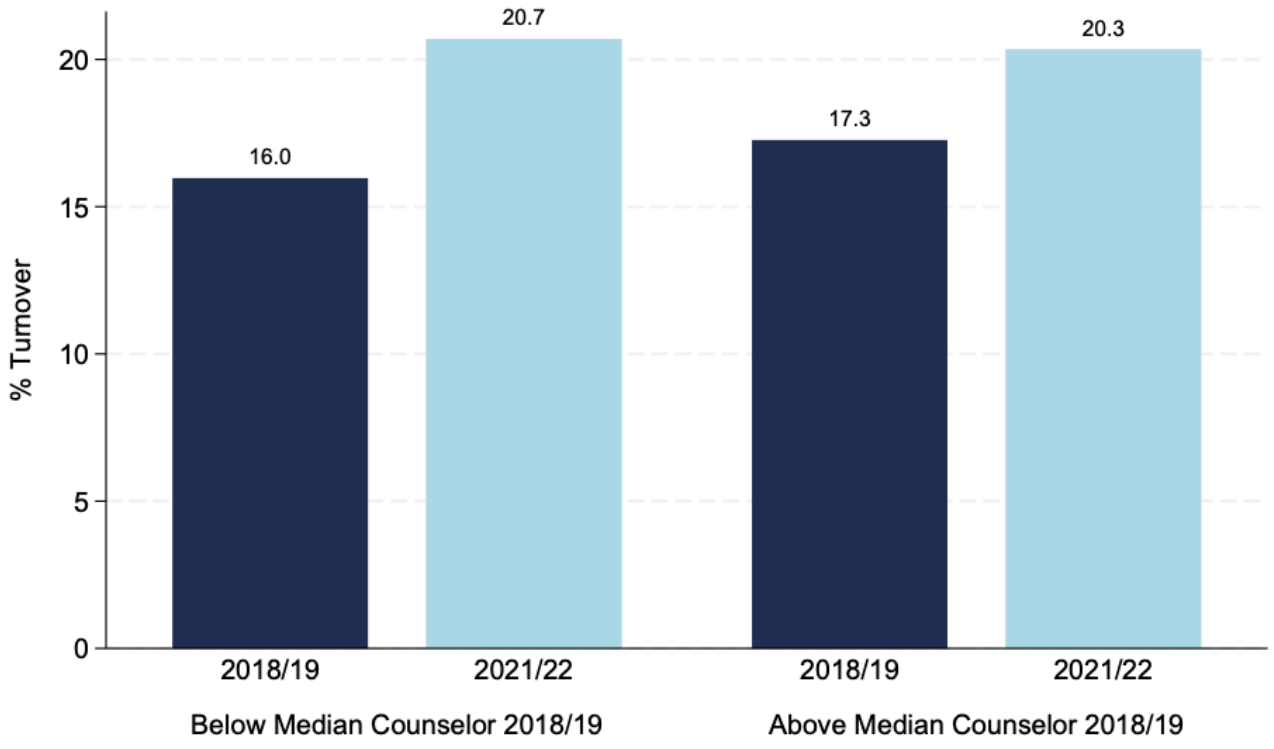


Figure 3. Teacher Turnover by Below and Above Median Social Workers per Student in 2018/19

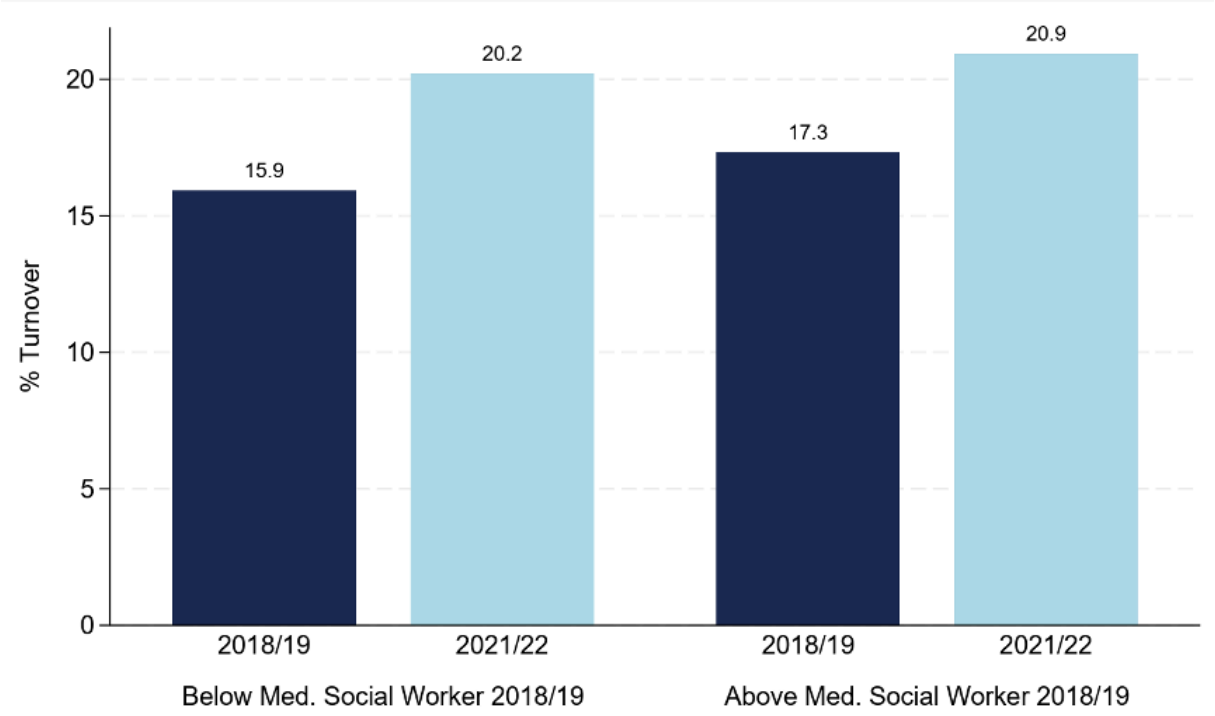
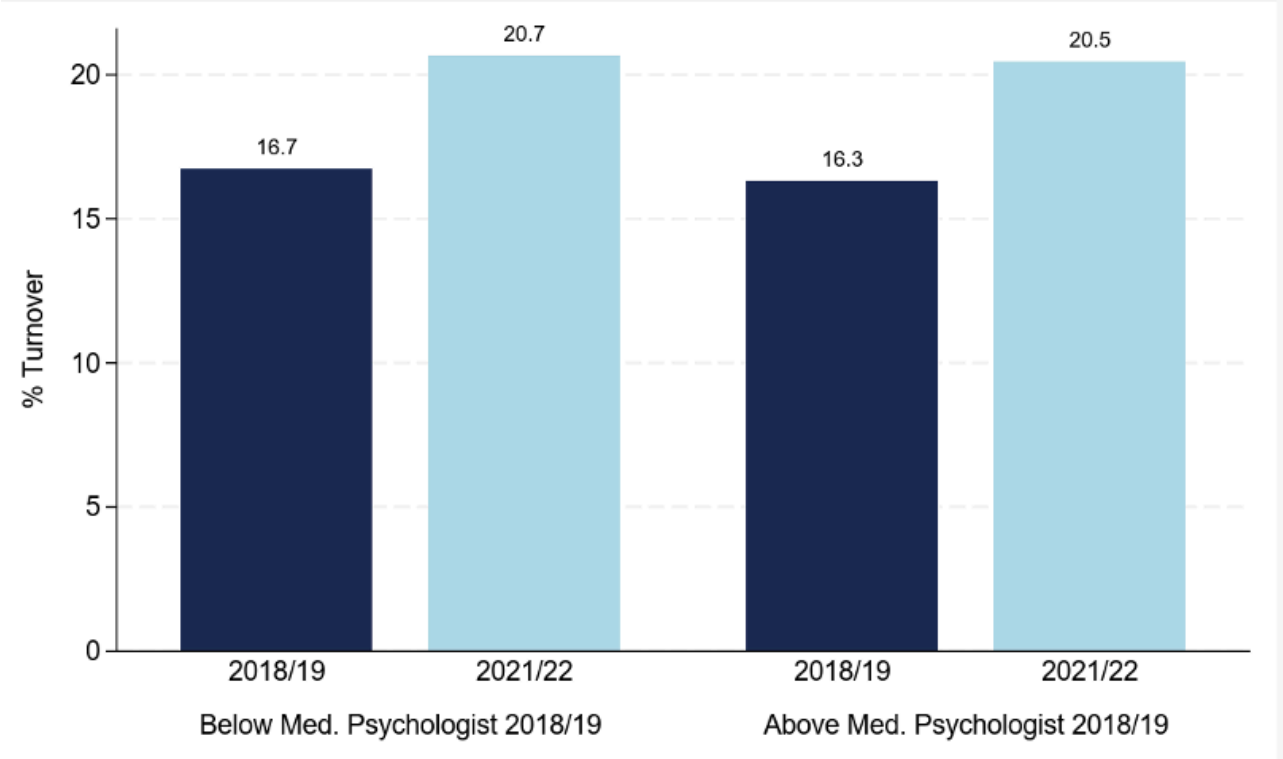


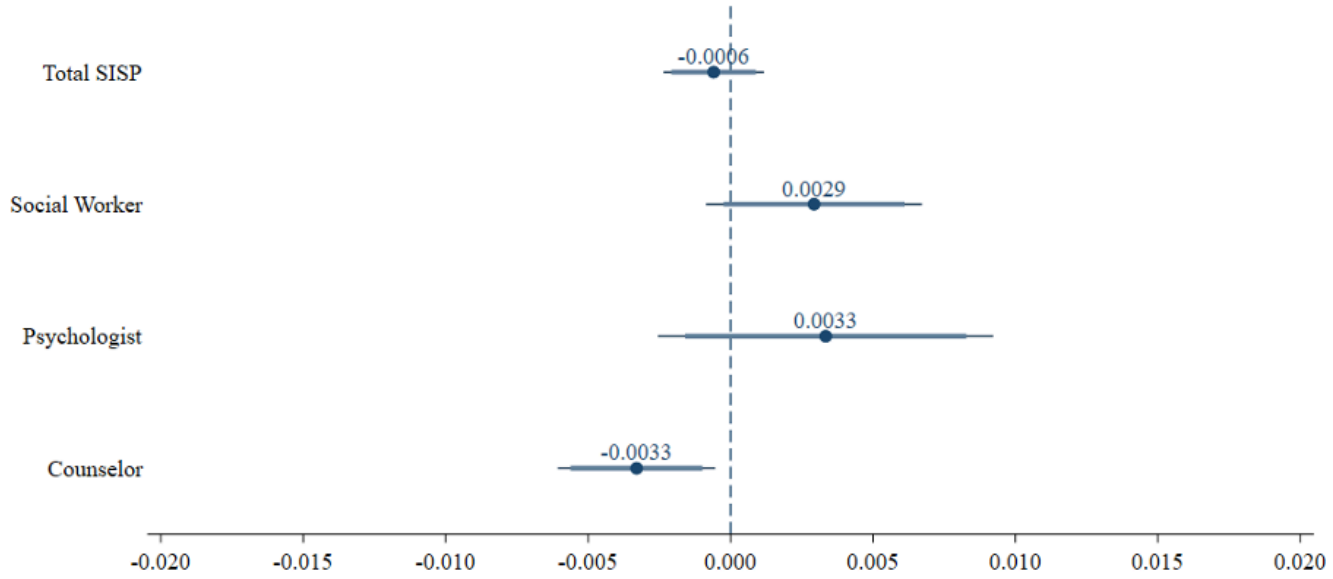
Figure 4. Teacher Turnover by Below and Above Median Psychologists per Student in 2018/19



There may be a few reasons that these simple comparisons may understate the benefits of SISP for teacher turnover. First, research shows that higher poverty schools have more SISPs per students.[13] Turnover also tends to be higher in high poverty schools, suggesting that economic disadvantage may be an important confound.[26] Consistent with this narrative, in our graphs we find that teacher turnover pre-pandemic was actually higher in schools with more counselors and social workers per student. Second, the pandemic may have led to turnover in SISP as well, suggesting that we should consider contemporaneous SISP per student as better representing the school supports available to teachers. Third, it may be important to consider the 3 types of SISP in combination given that their roles and contributions may differ depending on the broader student supports in place in the schools. These challenges combined motivate our regression framework. In the regression, we control for school characteristics that may be associated with greater availability of SISP and higher turnover (like economic disadvantage, school size and racial composition). We also focus on how changes in SISP at the school level determine changes in teacher turnover using school fixed effect models, thereby isolating effects of SISP from difficult to measure school-level attributes (e.g., intensity of poverty or socioemotional needs) that may affect availability of SISP and teacher turnover.[ii]

Figure 4 shows the parameter estimates with 90% (thin line) and 95% (thick line) confidence intervals. The first bar shows results from a regression estimating the effect of total SISP (the count of social worker, psychologist and counselor FTEs combined). We find no significant protective effect of total SISP for teacher turnover. The last 3 bars show results from a regression when we instead control for social worker, psychologist and counselor FTE as distinct inputs. In this case, the effect of counselors is statistically significantly different from 0, whereas there is no statistically significant effect of social workers and psychologists. These results show that adding 1 counselor decreases turnover by 0.3 percentage points on average. Other estimates (not shown) find that effects are not significantly different in the pandemic compared to pre-pandemic. Thus, the protective effects of counselors were similar pre-pandemic and during the pandemic.

Figure 5. The Effect of Support Personnel on Teacher Turnover (2013/14-2021/22)



CONCLUSIONS

Teacher turnover rose significantly during and after the COVID-19 pandemic, raising concerns about how North Carolina should allocate investments to stabilize the teaching workforce. Using North Carolina data from 2013/14 to 2021/22, we find that counselors are a protective factor: adding one counselor FTE is associated with an average 0.3 percentage-point reduction in teacher turnover after controlling for school and teacher characteristics. We hypothesize that counselors play a more protective role in our findings than other SISP because they are more a part of the school ecosystem and therefore can serve as more of a daily resource to teachers and students. By contrast, psychologists and social workers are often shared across multiple schools within a district and therefore can provide less focused support for students and impact fewer students and teachers in a given school. This makes it more difficult to detect the potential protective role they could play for teacher turnover given more favorable personnel to student ratios.

The dominant argument for hiring SISP is to provide additional support for student learning, emotional, and behavioral needs. Our research points to potential additional effects on the teacher workforce. While the protective effects we find for teacher turnover are small, we hypothesize that they may understate the potential benefits for teachers. For instance, we focused on year-to-year changes to separate effects of SISP from important confounds, yet this could understate the protective effects of SISP if the benefits accumulate over time. We also did not measure effects on teacher burnout and job satisfaction, which may impact teacher turnover in the longer run and affect teacher ability to support students. When taken in combination with significant benefits to students shown in a growing body of research,[5,16,19,20] our findings reenforce the need for school counselors suggesting that the benefits may be even bigger than previously suggested.

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[i] We calculate support personnel in full-time equivalent (FTE) units, taking into account the percentage of time they work at the given school and how many months out of the school year they work at the school. Because of some large outliers in the data that likely resulted from measurement error, we trim the top 1% of observations.

[ii] These models are estimated at the teacher level using year 2013/14 to 2021/22 and control for school characteristics (number of students, racial/ethnic composition of the school, percent economically disadvantaged), teacher characteristics (experience, experience-squared, National Board Certified, whether the teacher has a license to teacher, race/ethnicity, sex, salary, tenure), grade fixed effects, and year fixed effects (N=683,598). In models that control for teacher fixed effects estimated effects of counselors are even larger (-0.008), and there are also positive effects of school psychologists. We do not want to overinterpret the findings of positive effects of school psychologists in these models out of concerns it may be driven by measurement error and the large number of 0's. School psychologists are largely shared across schools within a district, making it more difficult to isolate within-teacher variation or even within-school variation.

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