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Teacher Absenteeism in a Metro-Atlanta School District

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Background and Motivation

Given the well-established links between teacher absenteeism and student outcomes,[1] leaders in a metro-Atlanta school district ("the district") wanted to better understand the frequency and patterns of teacher absenteeism. The district sought to understand if perceptions about the frequency and duration of absenteeism were accurate and if patterns in absenteeism pointed to larger issues such as teachers' well-being, classroom effectiveness, or teacher turnover.

In this report, we use administrative data from the district to document the frequency and stated reasons for absenteeism over a nine-year period. We also conduct regression analyses to determine which teacher characteristics, if any, are associated with increased levels of absenteeism. We differentiate between discretionary absences (e.g., personal or sick leave days) and non-discretionary absences (e.g., professional development or absences connected with school activities). Non-discretionary absences may provide positive returns to student academic achievement and improve school climate and working conditions.

Discretionary teacher absenteeism is linked to negative consequences for student academic performance[2] and increased costs for schools.[3] Teacher absenteeism requires that districts locate qualified personnel to serve as substitute teachers and compensate those individuals for their time. In addition to these direct costs of providing coverage during teacher absences, there may be additional costs in terms of decreased student learning and demoralization or discouragement among teachers whose coworkers have poor attendance.

There are many reasons teachers take leave from work, including providing care for a sick family member or themselves. This study did not delve into why teachers take leave beyond administrative data descriptions for absence types which the district had historically collected. Regardless of the reason for absences, it is important for teachers, like all employees, to have access to leave policies that support their well-being and allow them to perform the tasks required for their positions. Leave policies that prioritize attendance at the expense of educator well-being have the potential to undermine the overall effectiveness of instruction.

Data and Methods

We use several types of regularly-collected administrative data about the district's teachers. These data include teacher-level daily absence data for

school year (SY) 2011–12 through SY 2018–19, which provide information on the reasons for specific absences, and teacher demographic and employment characteristics. Our descriptive analyses examine absenteeism patterns by day of the week, month, grade level, geographic region within the district, school cluster (i.e., schools feeding into a high school), and individual school over time to visualize absenteeism trends.

We examine five specific outcome measures, four of which are measures of absenteeism and one that is a measure of attendance:

1. total absences;
2. discretionary absences, including sick leave or personal business days;
3. spells of five consecutive days of absence;
4. chronic absenteeism, which is defined as 15 or more total days absent in a school year; and
5. perfect attendance.

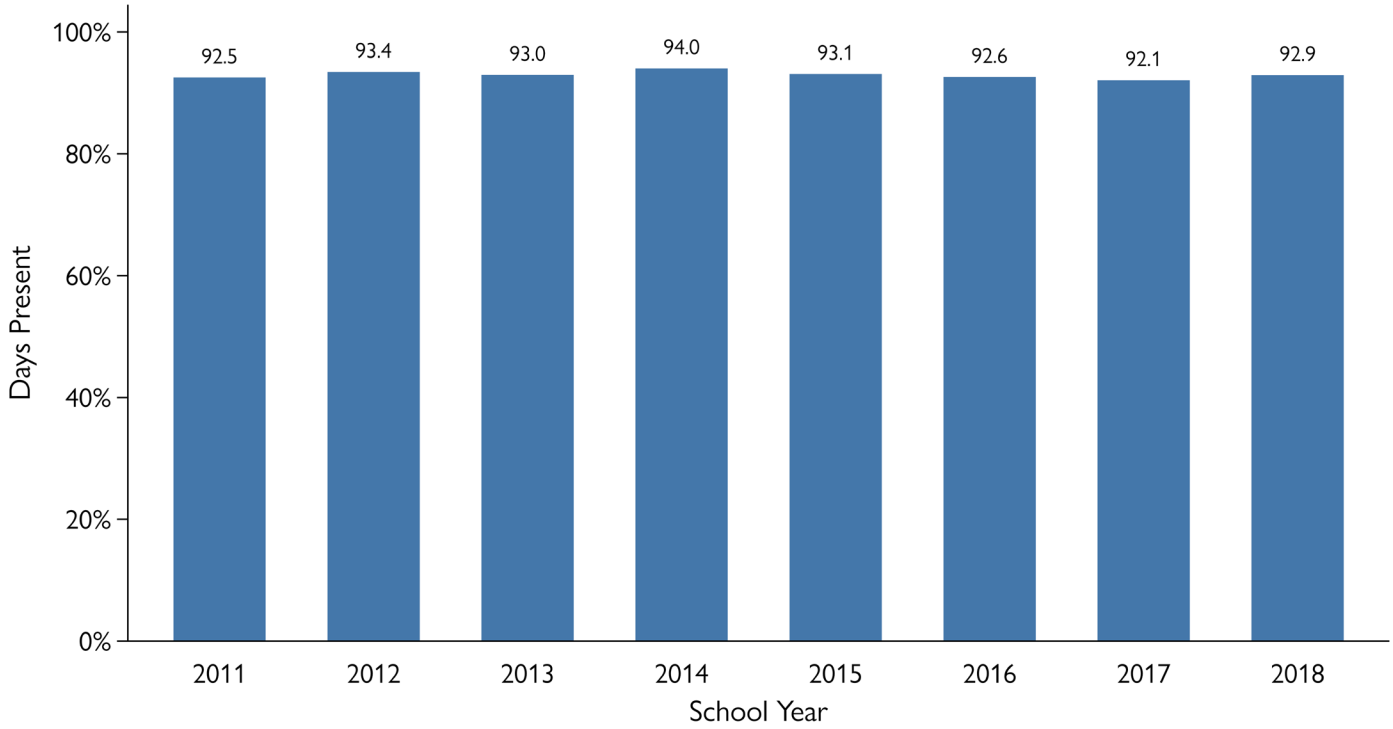
We use regression models to estimate the association between absenteeism-related outcomes and teacher characteristics. The models include year, teacher, classroom/student, and school-level control variables. We also examine a parallel set of models with school fixed effects in place of school-level control variables. Estimates from the models with school fixed effects compare teachers within schools, and the models with school-level control variables estimate associations district-wide. We consider whether models predicting chronic absenteeism or perfect attendance are driven mainly by long-term absence spells. To check the robustness of our findings, we estimated additional models excluding observations where teachers had spells of five or more consecutive absences.

Research Questions

We addressed two research questions:

1. What are the patterns of absenteeism among teachers?
2. What characteristics of teachers are associated with absenteeism?

Figure 1. Teacher Attendance Rate Over Time



Notes. School years refer to the second calendar year (e.g., 2011 refers to SY 2010–11).

Finding 1: Overall Rate of Teacher Attendance

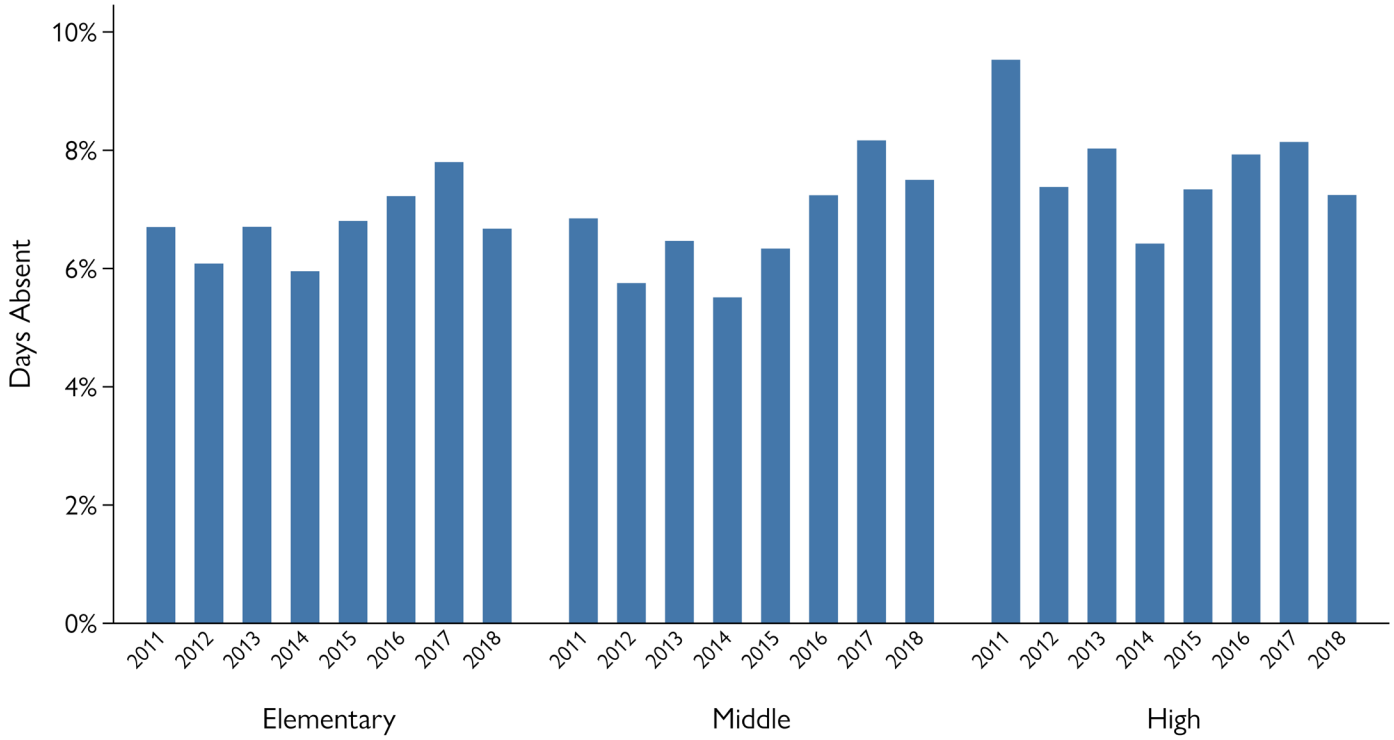
The overall teacher attendance rate is high at around 93%. We observe no significant time trends in attendance.

Figure 1 shows the teacher attendance rate over time. While yearly fluctuations in attendance occur over the nine years, there are no consistent upward or downward trends in overall absenteeism rates. Patterns are similar across time in the ratio of discretionary to non-discretionary absenteeism. Concern that the share of teachers taking extended leave (i.e., more than five consecutive absences) has increased is not supported by the data.

Finding 2: Variation in Absenteeism Across Schools and Clusters

Patterns of teacher absenteeism vary when the data are disaggregated into smaller units.

Figure 2. Teacher Absence Rate by School Type



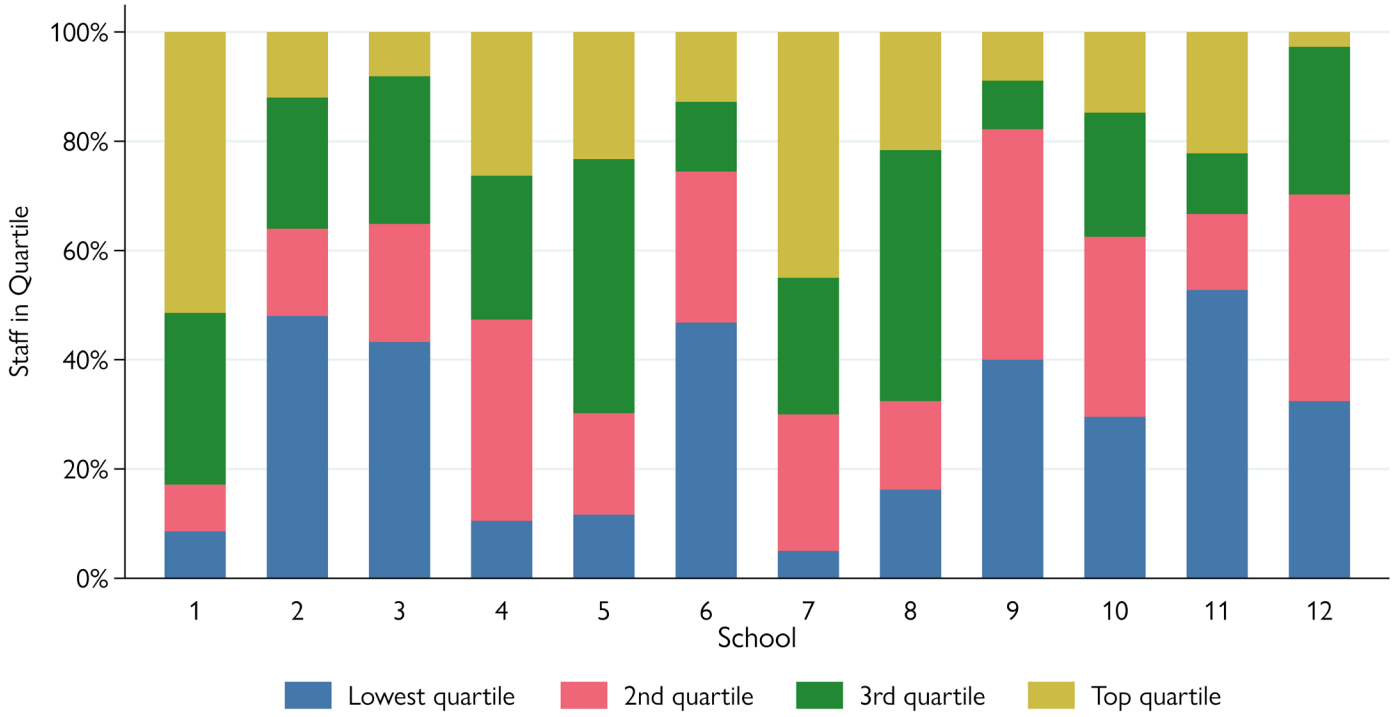
Notes. School years refer to the second calendar year (e.g., 2011 refers to SY 2010–11).

Unsurprisingly, data aggregated across the district mask the substantial variation that occurs across groups of teachers. When examining patterns across schools, clusters, or regions of the district, we see differences in the attendance of teachers that may indicate a need for further examination of conditions within those subunits. Figure 2 presents an example of these differences by comparing rates of absenteeism based on the grade level taught. The visual differences in absence rates—whereby teachers of students in high school grades are absent more often than teachers in other grades—remain present after controlling for a variety of teacher and school characteristics.

We further investigate differences in absences across schools by defining categories based on the number of absences across all teachers in the district in SY 2018–19. We divide teachers into absence quartiles (i.e., four groups each containing the same number of teachers). The lowest quartile includes teachers with the lowest absence rates, and the top quartile includes teachers who missed the highest number of days.

Figure 3 shows the percentage of teachers who fall within each of the absence quartiles for 12 randomly-selected schools to illustrate the variation. We

Figure 3. Percentage of Teachers Within Overall Absence Quartiles Among Sample of 12 Schools, by School

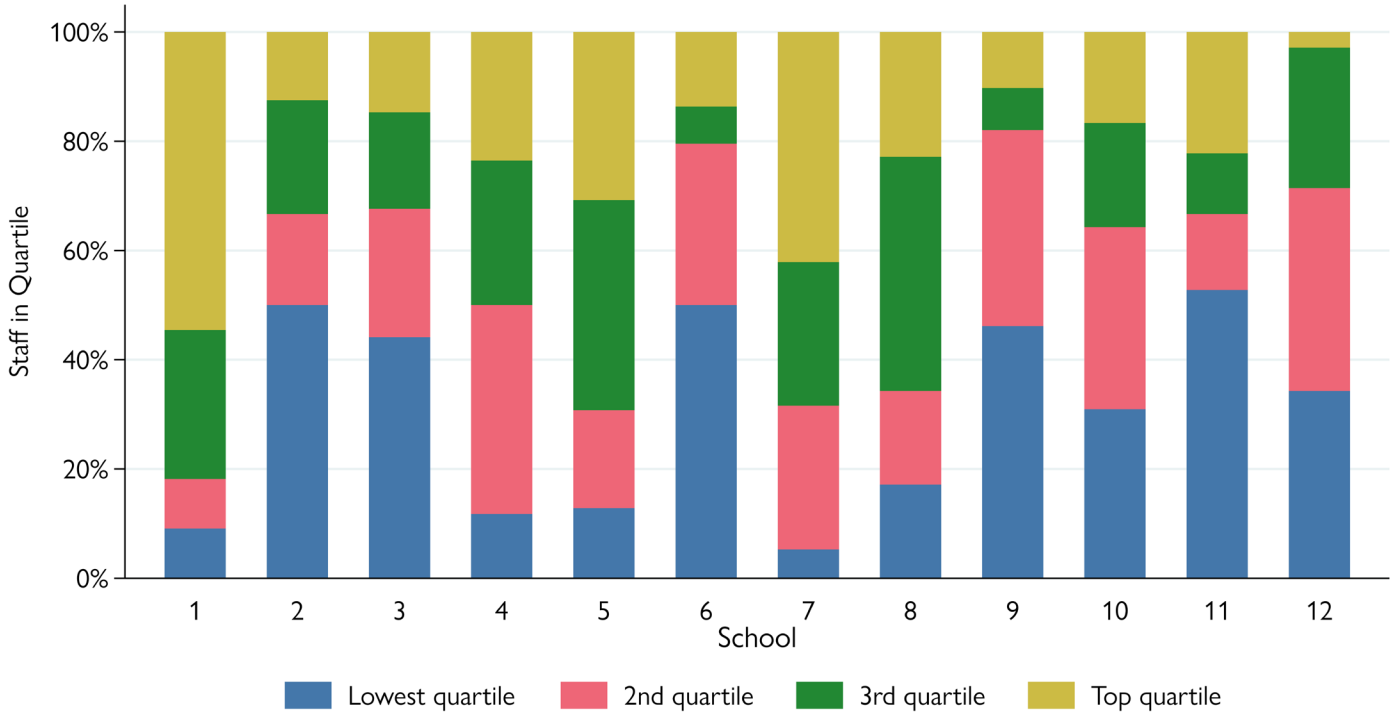


observe different patterns of absenteeism across schools. In School 1, over 80% of teachers were in the highest two absence quartiles and missed the highest number of days relative to all other teachers; over 50% were in the highest quartile. By contrast, in School 6, over 75% of teachers were in the lowest two absence quartiles, missing relatively few days, and about 50% of teachers were in the lowest quartile.

In Figure 4, we exclude any teachers experiencing a spell of five or more consecutive days absent during the school year to remove cases of long-term leave. The patterns of absence vary somewhat across Figures 3 and 4, but the overall pattern of absenteeism across schools remains relatively steady.

Disaggregating absenteeism in this way can identify schools in which the pattern of absences is unusually high relative to other schools in the district. Identifying systemic problems or promising practices may help the district lower teacher absenteeism in future years.

Figure 4. Percentage of Teachers Within Overall Absence Quartiles Among Sample of 12 Schools, Excluding Long-Term Leave, by School



Finding 3: Teacher Characteristics and Absenteeism

Regression models relating absenteeism to observed teacher characteristics explain very little overall variation in absence outcomes. Some characteristics of teachers and the students they teach are predictive of attendance, holding all other factors constant.

Appendix Tables 1 and 2 present estimates from regression models that relate teacher characteristics to the five measures of absenteeism or attendance. Appendix Table 1 shows estimates from models that include school-level control variables, while Appendix Table 2 includes school fixed effects in place of school-level controls.

The estimated models show that teacher characteristics are weak predictors of absenteeism; the best-fitting model explains only about 7% of the total variation in teacher absenteeism.[4] Most variation in absenteeism is not predicted by

observable teacher characteristics. This suggests that interventions intended to reduce absenteeism will likely be equally effective across teachers regardless of their work settings, the population of students they serve, or most personal characteristics.

Although teacher characteristics explain little overall variation in teacher absenteeism, some specific characteristics are associated with absenteeism or attendance:

Grade Level

Compared to elementary and middle school teachers, high school teachers have higher rates of overall absences. Grade level is not significantly associated with other outcomes.

Experience

Teachers with fewer than three years of experience have fewer overall absences and discretionary absences (about two days of increased absences whether measured by total days absent or discretionary absences) compared to more experienced teachers. Less-experienced teachers also have lower rates of extended absenteeism, are less likely to be chronically absent, and are more likely to have perfect attendance.

Gender

Female teachers have higher rates of overall absenteeism and discretionary absenteeism relative to male teachers. In addition, female teachers are less likely to have perfect attendance and more likely to have extended absences or be chronically absent. The gender differences persisted after removing teachers with a spell of five or more consecutive days absent in a school year, but it did reduce the effect of the relationship between gender and chronic absenteeism.

Race

We find a small difference in discretionary absenteeism between White teachers relative to Black teachers in a model with school fixed effects, but this result did not appear in a model that compared teachers across schools. Models in which the outcome is any absenteeism detected about one fewer day absent per year for White teachers, Hispanic teachers, or Asian-American teachers relative to Black teachers. This indicates that, after controlling for other

observed teacher characteristics, Black teachers have about one additional non-discretionary day of absence per school year compared to teachers in the other race categories.

Classroom and School Composition

Overall, the statistical relationships between classroom and school composition measures and the outcomes are relatively modest and show patterns of correlation mostly consistent with prior expectations. The coefficients on the classroom and school composition variables are interpreted as the expected change in the absenteeism outcome given a one-percentage-point increase in the classroom or school variable, while holding fixed other teacher characteristics included in the model. For example, a teacher whose classroom contains 10% of students identified as gifted is expected to have about 0.15 fewer discretionary absences per school year on average relative to similar teachers whose classrooms contain no gifted students.

- Teachers serving higher proportions of students identified as gifted have lower discretionary absences rates compared to those serving fewer gifted students.
- Teachers working with students with identified disabilities have higher rates of overall absenteeism, discretionary absenteeism, and chronic absenteeism than teachers in settings serving fewer students with identified disabilities.
- Teachers who served students with higher absenteeism rates in the prior school year also have elevated rates of absenteeism on all five measures of attendance.
- Counterintuitively, teachers serving higher proportions of students with prior-year disciplinary incidents have lower rates of overall absenteeism and are less likely to be chronically absent.
- We do not detect any association between measures on a school-level survey of working conditions and our measures of teacher absenteeism.[5]

Implications

In this study of teacher absenteeism in metro Atlanta, we find high overall teacher attendance with no indication of a trend toward increasing absenteeism or increasing use of extended absence spells. Observed teacher characteristics only weakly predict teacher absenteeism.

Teacher characteristics that are most strongly predictive of absenteeism outcomes after controlling for other observed characteristics (including experience and gender) do not neatly align with targeted interventions as they represent somewhat immutable differences in the students taught. Inexperienced teachers likely feel more pressure to avoid absences given their relative newness to the job. Still, it is unknown if the related positive impacts on student learning from high teacher attendance may also present a trade-off in terms of teacher burnout and stress. Observed gender differences related to work absenteeism are well-established in many contexts, and theorized explanations for these differences include characteristics of work settings, work-life decisions, and societal norms that vary across gender.[6] Given the predominantly female workforce in many educational settings and increased rates of absenteeism among this group, interventions that effectively address disproportionate out-of-work burdens (e.g., providing workplace supports in the event of a sick child or elder care services) will likely be particularly impactful in reducing overall rates of absenteeism.

Endnotes

1. Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2009). Are teacher absences worth worrying about in the United States? *Education Finance and Policy*, 4(2), 115-149.

2. Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2009). Are teacher absences worth worrying about in the United States? *Education Finance and Policy*, 4(2), 115-149.

3. Norton, M. S. (1998). Teacher absenteeism: A growing dilemma in education. *Contemporary Education*, 69(2), 95.

4. Variation is measured by R-squared.

5. Due to the inability to link teacher responses to teacher-level measures of absenteeism, the power of this analysis is limited.

6. Bekker, M. H., Rutte, C. G., & Van Rijswijk, K. (2009). Sickness absence: A gender-focused review. *Psychology, Health & Medicine*, 14(4), 405-418.

About the Authors

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C. Kevin Fortner, Ph.D., is an associate professor of research, measurement, and statistics in the College of Education and Human Development's department of educational policy studies at Georgia State University. His research interests include teacher effectiveness and persistence, program evaluation, and the application of quantitative methods to policy relevant questions. His work is published in a variety of journals including *Science*, *Educational Researcher*, *Early Childhood Education Quarterly*, and *Educational Evaluation and Policy Analysis*.

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Kate Caton is a doctoral student in the research, measurement, and statistics program in the College of Education and Human Development at Georgia State University. They are a graduate research assistant with the Georgia Policy Labs and an education systems research intern at the American Institutes for Research. Their dissertation work is focused on student discipline and the impacts of urbanicity on students using a critical quantitative lens. They were selected as a 2019 Society for Research on Educational Effectiveness summer fellow and have previously worked with the Urban Child Study Center at Georgia State University.

About the Georgia Policy Labs

The Georgia Policy Labs is an interdisciplinary research center that drives policy and programmatic decisions that lift children, students, and families—especially those experiencing vulnerabilities. We produce evidence and actionable insights to realize the safety, capability, and economic security of *every* child, young adult, and family in Georgia by leveraging the power of data. We work alongside our school district and state agency partners to magnify their research capabilities and focus on their greatest areas of need. Our work reveals how policies and programs can be modified so that every child, student, and family can thrive.

Housed in the Andrew Young School of Policy Studies at Georgia State University, we have three components: the Metro Atlanta Policy Lab for Education (metro-Atlanta K-12 public education), the Child & Family Policy Lab (supporting children, families, and students through a cross-agency approach), and the Career & Technical Education Policy Exchange (a multi-state consortium exploring high-school based career and technical education).

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