

EXECUTIVE SUMMARY AUGUST 2020

# Supporting School Improvement

Early Findings from a Reexamination of the  
*5Essentials* Survey



Holly Hart, Christopher Young, Alicia Chen, Andrew Zou, and Elaine M. Allensworth

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# Executive Summary

Why do students in some schools show more progress than others? Families, teachers, principals, district leaders, and state and federal policymakers have asked this question for decades as they pursue a high-quality public K-12 education for all students. For 20 years, the *5Essentials* Survey and its underlying conceptual framework, which articulates critical aspects of school climate and organization, have helped school communities unpack what may be contributing to—or holding back—growth in their students’ outcomes.

This report updates the original design and validation of the *5Essentials* Survey, addressing questions about its present-day validity and use in schools and districts.

## History and Context: *5Essentials* Survey and Framework

The *5Essentials* Survey and underlying framework originated in the 1990s as a tool for studying differential progress among schools at a time of historic school reform in Chicago.<sup>1</sup> Researchers at the University of Chicago Consortium on School Research (UChicago Consortium) examined whether having strength in five key areas of school organization explained why some schools improved student achievement and others did not. In consultation with other researchers, practitioners, policymakers, and community stakeholders, these researchers created a conceptual framework called the “Five Essential Supports for School Improvement.” This framework identified five key elements, or “essential supports,” of a school that influenced its students’ learning: Effective Leaders, Collaborative Teachers, Involved Families, Supportive

Environment, and Ambitious Instruction.<sup>2</sup> The *5Essentials* Survey captures the strength of each essential support through survey questions (also called items) completed by teachers<sup>3</sup> and students.<sup>4</sup> Underlying concepts that make up each essential, such as Instructional Leadership or Student-Teacher Trust, are captured using groups of items (called “measures”). The *5Essentials* Survey items, measures, and essentials are presented in **Figure 2 in the full report**, replicated on page 2.

A longitudinal validation study using 15 years of districtwide elementary school data (collected between 1991 and 2005) and 20 years of research provided evidence that these five essential supports of a school organization were the foundation of a school’s ability to increase students’ learning gains over time. This extensive work was published in the book, *Organizing Schools for Improvement: Lessons from Chicago* in 2010 and examined the relationship between *5Essentials* Survey results with elementary school test scores and attendance.<sup>5</sup> A key finding was that students in schools that were strong in at least three of the essential

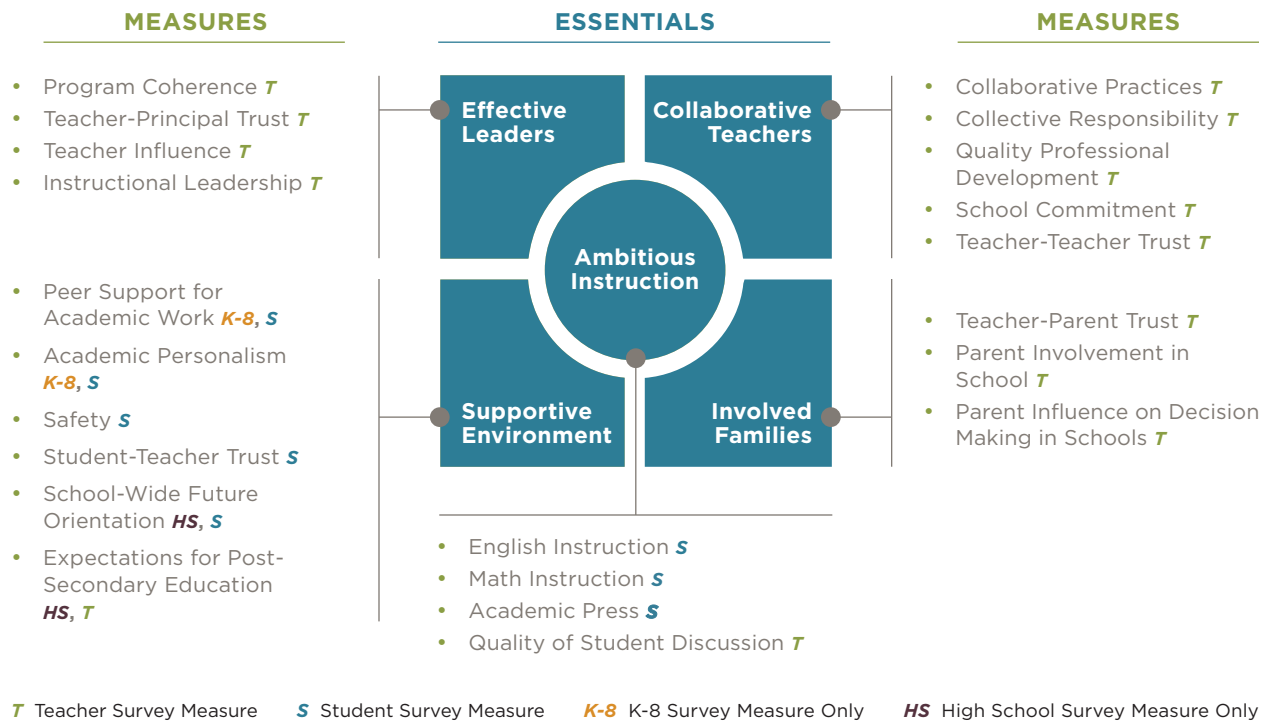
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1 Throughout this report, we refer to the underlying framework as the “five essential supports” and the survey that was created based on this framework as the *5Essentials* Survey.  
2 Authors originally used different terms for the five essential supports in early reports, referring to: school leadership, professional capacity, parent-community ties, student-centered learning climate, and instructional guidance.

3 Some but not all of the survey questions completed by teachers are also completed by non-teaching staff in schools (e.g., teacher assistants, counselors, librarians, etc.).  
4 While a parent survey is given in Chicago Public Schools (CPS), this survey is constructed and administered by CPS and is not part of the *5Essentials* Survey.  
5 Bryk, Sebring, Allensworth, Luppescu, & Easton (2010).

**FIGURE 1**

The Five Essential Supports are Formed by 20 Separate Measures on the *5Essentials* Survey



**Note:** Measures that comprise the Supportive Environment essential are different for elementary schools (Safety; Student-Teacher Trust; Peer Support for Academic Work; Academic Personalism) and high schools (Safety; Student-Teacher Trust; School-Wide Future Orientation; Expectations for Post-Secondary Education). Thus, each *5Essentials* Survey includes 20 measures, but there are 22 unique measures.

supports were up to 10 times more likely to experience substantial gains on both reading and math scores than students in schools that were weak in three or more of the supports.<sup>6</sup>

The current study provides an updated and expanded validation of the *5Essentials* Survey. This study adds an important additional outcome for elementary schools—students’ GPAs—and, even more importantly, also assesses the validity of the *5Essentials* Survey in high schools. The high school analyses encompass a range of outcomes: test scores, attendance, GPAs, Freshman

OnTrack rates, and college enrollment. By revalidating the *5Essentials* Survey and expanding the validation to more grade levels and additional student outcomes, this study seeks to provide school leaders, teachers, researchers, and other education practitioners with a broad-based tool to guide their work building schools in which adults and children can learn and thrive.<sup>7</sup>

### The *5Essentials* Survey in a Changing Education Landscape

While research shows that the environment students and staff experience in schools affects student learning,

<sup>6</sup> Schools were categorized as “strong” on an essential support if their survey score on that indicator fell in the top quartile of Chicago elementary schools. Schools ranked in the bottom quartile for an essential indicator were classified as “weak” on that essential support.

<sup>7</sup> The purpose of this study, like other validation studies, is to examine the degree to which our measurement tool, the *5Essentials* Survey, does what it is intended to do. In this

case, we are assessing the extent to which teachers/staff and students’ reports about their school in one year predict improvement in outcomes in the subsequent year, and also whether growth in *5Essentials* Survey measures predicts improvement in outcomes in the concurrent year. All analyses controlled for prior student achievement. In the interest of transparency, this report aims to clearly articulate our findings for public consideration.

there are not many school climate tools and measurements available to educators and policymakers that are both validated and useful for identifying challenges in schools and guiding their work toward improvement. As one of the few validated instruments, the *5Essentials* Survey is one of the most widely-used tools to measure school climate. The *5Essentials* Survey has been administered in more than 6,000 schools across the country.<sup>8</sup>

Nonetheless, the *5Essentials* Survey was last validated in 2010 and there were some limitations of that study. The validation only examined elementary schools and three outcomes: reading test scores, math test scores, and attendance rates. And the data used for the validation are relatively old (1991–2005).

Since the *Organizing for School Improvement* validation study of the five essential supports, much has changed in education both nationally and in Chicago Public Schools (CPS). In addition to educational practice evolving during this period, accountability policies have become an influential part of the context of education, both in Chicago and across the country. Chicago principals of schools that initially and voluntarily participated in the biennial *5Essentials* Survey, between 1997 and 2009, were provided a confidential report of their results.<sup>9</sup> The survey evolved to become annual and web-based, and later—in 2014—it became part of the CPS accountability policy, comprising 5–10 percent of a school’s quality rating. Today, in 2020, the *5Essentials* Survey is completed by CPS students in grades 4–12 and CPS teachers in grades pre–k–12, and reports of results are publicly available.<sup>10, 11</sup>

Changes like these in the administration and use of the survey could potentially strengthen or weaken the quality of the data and the degree to which the surveys

accurately represent what is happening in schools. For example, increased attention to the importance of the *5Essentials* Survey could improve data quality by raising response and completion rates. Better data quality would increase the ability to statistically detect and measure a connection between survey outcomes and performance, strengthening the validity of the survey overall. On the other hand, because school ratings are consequential, there could be an incentive or pressure for schools to appear strong on the five essential supports. If respondents exaggerated their school’s strengths when responding to the survey, it would compromise the ability of the survey to accurately assess schools’ performance, and thereby also compromise the relationship between school organization and improvement in student outcomes. This would be interpreted as a lack of validity.

This study therefore seeks to understand the validity of the *5Essentials* Survey at the present stage of educational practice in both elementary and high schools, and under present conditions in CPS.

## Key Findings from First Phase of this Study

**Our findings indicate that *5Essentials* Survey measures continue to be predictive of school improvement in elementary schools, and are also predictive in high schools.** Of the 22 survey measures, all were in some way positively and significantly associated with schools’ improvement. At the same time, all measures were not associated with all outcomes.<sup>12</sup> For example, yearly attendance rates improved more at elementary schools that were strong on *5Essentials* Survey measures, such as Parent Involvement in School and

<sup>8</sup> Since 2011 many schools and districts have worked with UChicago Impact to take the *5Essentials* Survey and receive online reports. The UChicago Consortium and UChicago Impact are separate units within the University of Chicago Urban Education Institute (UEI). For more information on UEI, please visit <https://uei.uchicago.edu/>. For more information on UChicago Impact’s *5Essentials* Survey administration, see <https://www.uchicagoimpact.org/our-offerings/5essentials>. Of note, the surveys have been available to the public from the UChicago Consortium since 1997, and have been the foundation of many other school climate instruments, including New York City’s Framework for Great Schools; see <https://www.schools.nyc.gov/about-us/vision-and-mission/framework-for-great-schools> for one example.

<sup>9</sup> For an example report provided to participating schools from 1997 to 2009, see <https://consortium.uchicago.edu/publications/improving-chicagos-schools-millard-fillmore-school>

<sup>10</sup> For details about the *5Essentials* Survey, see <https://www.5-essentials.org/>

<sup>11</sup> Fourth- and fifth-grade students fully participated in *5Essentials* Surveys for the first time in 2020 and are therefore not included in analyses in this study.

<sup>12</sup> Nearly all outcomes were positively related to at least one-half the survey measures. The exception is the outcome of college enrollment, which was positively and significantly related to less than one-half of the measures, when considering measure growth instead of measure strength. See p.38 for more details.

School Commitment, than at elementary schools that had average measure scores.<sup>13</sup> The difference between yearly growth in attendance rates in schools with strong vs. average measure scores was as much as an additional 0.48 percentage points in elementary school and an additional 3.55 percentage points in high school. Similarly, Freshman OnTrack rates improved by as much as 3.25 percentage points more in high schools with strong *5Essentials* Survey measures, such as Collective Responsibility and School-Wide Future Orientation, compared to schools with average measure scores.<sup>14</sup>

Additionally, we found:

- **Both 1) starting out the year with strength in *5Essentials* Survey measures and 2) improving on measures during the course of the year predicted improved student outcomes in schools.** Thus, schools that are working to improve in an area, e.g. Student-Teacher Trust or Teacher Influence, but have not yet reached a point of strength may still see improvements in their students' outcomes such as grades, tests, and attendance while they are growing their five essential supports.
- **The *5Essentials* Survey measures were positively and significantly related to growth in elementary test scores and attendance.** This is consistent with the outcomes of our first validation, published in *Organizing Schools for Improvement* in 2010.<sup>15</sup>
- **Elementary GPA also improved more in schools with strong *5Essentials* Survey measures.** This is a new finding and an important addition since students' grades are stronger predictors of their success in high school than test scores.<sup>16</sup> GPA growth was not part of the original validation study.
- **High school outcomes—attendance, test scores, GPA, Freshman OnTrack, and college enrollment—were positively and significantly related to**

*5Essentials* Survey measures. This is the first study that has incorporated all of these high school outcomes with all *5Essentials* Survey measures and it is an important contribution to school climate research and practice.

- ***5Essentials* Survey measures predicted improvement for schools that were strong compared to other schools, but also for schools compared to themselves in stronger vs. weaker years.** Our analyses looked at both schools compared to other schools, and schools compared to themselves over time. This finding suggests that the five essential supports do not just relate to differences between schools, but also to the changes in organizational strength in the same schools over time.

**These results suggest that the *5Essentials* Survey, and its underlying framework, continue to be meaningful indicators for schools working to improve student outcomes.**

## Next Steps: Second Phase of this Study

Our next steps will be to examine whether the *5Essentials* Survey measures relate to outcomes differently across different school contexts. These contexts include variations in student population (e.g., in terms of students' socioeconomic status, race/ethnicity, mobility, special education status) and also school characteristics, such as those with selective enrollment policies, or smaller enrollment.

And while the quality and robustness of the *5Essentials* Survey's statistical underpinnings are critically important to the value of this tool, so, too, are the experiences of people who interact with the survey in schools—as respondents, practitioners, and school leaders. Understanding these experiences and the ways individuals' perceptions shape the dynamics of schools' engagement with the five essential supports represents another priority for this research. Thus, in addition to the second-phase technical

<sup>13</sup> "Strong" is defined as one standard deviation above the average on a particular *5Essentials* Survey measure in the spring prior to the year in which we measure outcome improvement.

<sup>14</sup> For example, a school with strong *5Essentials* Survey measures in the spring of 2016 saw a larger increase in their Freshman OnTrack rate (4 percentage points) between the spring 2016 and spring 2017 than schools that had average *5Essentials*

Survey measures. All analyses controlled for prior student achievement. Therefore, this is an improvement in the outcome greater than that which would have been expected based on students' prior performance.

<sup>15</sup> Bryk et al. (2010).

<sup>16</sup> Allensworth, Gwynne, Moore & de la Torre (2014).

validation described above, we are also exploring how CPS personnel interact with the *5Essentials* Survey as a tool in school improvement through interviews with principals and teachers in elementary and high schools. This qualitative study is vital to understanding how the *5Essentials* Survey influences, and is influenced by, the enactment of policies and practices tied to school improvement and accountability. Furthermore, findings may shed light on opportunities for improving communication and reporting of the *5Essentials* Survey to more effectively support

positive school outcomes.

Ultimately, we undertook this two-year study to ensure a strong research foundation for the *5Essentials* Survey and framework as a tool to guide educators, policymakers, researchers and families in their work creating supportive school environments. Findings from this work will guide ongoing improvements and additional study of both the five essentials framework and *5Essentials* Survey. Results from the second phase of this study will be available in early 2021.

## ABOUT THE AUTHORS

**HOLLY HART** is currently Survey Director at the UChicago Consortium. In this position she oversees survey content development and research on *5Essentials* and *Early Education Essentials* Surveys. Holly is a mixed-methods researcher with a background in psychology and adult development. Before joining the UChicago Consortium, Holly oversaw survey research on a variety of topics at the Survey Research Lab at UIC. As a Senior Research Associate at the UChicago Consortium, she has conducted a number of studies focused on teachers and principals at different points of their careers. Her teacher-focused work has included studies of teacher training and coaching by the Urban Teacher Education Program and the Chicago New Teacher Center. She has also studied Chicago's REACH teacher evaluation system. Her research on principals ranges from principal preparation in Chicago and Illinois, to an Institute of Education Sciences study of the key mechanisms through which school leaders influence student achievement.

**CHRISTOPHER YOUNG** As a Psychometrician at the UChicago Consortium, Chris helps to create informative survey items and to refine the quantitative feedback provided to practitioners so that it is accurate and useful. Chris also provides support across Urban Education Institute by advising researchers about applying analysis techniques and providing an accurate interpretation of results for their particular audience. Chris's background is in developmental psychology, a field where he has published on how to identify skills and choose among competing theories of cognition by comparing statistical models. Prior to joining the UChicago Consortium, he helped to develop an assessment system that pre-kindergarten teachers used to measure and improve their students' proficiencies in mathematical and literacy skills through play. Chris focuses on using data to understand change over time. He hopes to build tools that measure and promote healthy schools and that help students to grow beyond expectations of past trends.

**ALICIA CHEN** As Survey Coordinator at the UChicago Consortium, Alicia develops content for the *5Essentials* and *Early Education Essentials* Surveys. She is interested in describing the ways that school environments affect

students' learning and outcomes, and using survey data to provide insights for school leaders and stakeholders. Using statistical methods and quantitative data analysis, Alicia assists Consortium research in its goals of improving education outcomes in Chicago.

**ANDREW ZOU** As a Research Analyst, Andrew supports the work of Consortium researchers as they design and implement studies. He also contributes to the organization's capacity to conduct highly rigorous quantitative research on the Chicago Public Schools. Andrew currently works on expanding the five essential supports to early childhood education and evaluating the trauma responsive educational practices program in Chicago. Andrew's past experiences include working as an intern at Advance Illinois, an education policy advocacy organization, researching teacher shortage in Illinois. There, he also had the opportunity to attend congressional hearings and contact lawmakers to support the approval of the state's education budget. In addition, Andrew has interned at Russell Investments, conducting competitive analyses on different types of defined contribution plans.

**ELAINE M. ALLENSWORTH** is the Lewis-Sebring Director of the UChicago Consortium, where she has conducted research on educational policy and practice for the last 20 years. She works with policymakers and practitioners to bridge research and practice, providing advice to researchers across the country about conducting research-practice partnerships, and serving on panels, policy commissions, and working groups at the local, state and national level. She is recognized as an expert in the areas of students' educational attainment, school leadership, and school improvement. She is one of the authors of the book, *Organizing Schools for Improvement: Lessons from Chicago*, which documents the ways in which organizational structures in schools influence improvements in student achievement. She has received a number of awards from the American Educational Research Association, including the Palmer O. Johnson award Division H awards outstanding publications. She was once a high school Spanish and science teacher.

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# UCHICAGO Consortium on School Research

1313 East 60th Street  
Chicago, Illinois 60637

**T** 773.702.3364

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