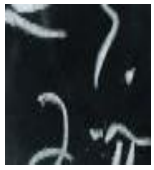










YouthTruth

STUDENT SURVEY

A NATIONAL NONPROFIT

Design & Methodology

Background: YouthTruth Student Survey

YouthTruth harnesses student perceptions to help educators accelerate improvements in their K-12 schools and classrooms. After gathering candid student feedback, we rigorously analyze and report on the resulting quantitative and qualitative data in a robust, interactive online reporting platform. Through these services, YouthTruth surveys provide a cost-effective, rigorous, and meaningful way to inform data-driven practices, school improvement plans, and targeted professional development.

Through partnering with YouthTruth, clients can survey students in grades 3-12 using any or all of the following survey instruments:

- The YouthTruth *Feedback for Teachers Survey*, for grades 6-12, gathers student feedback about their experiences with specific teachers and classes in six key areas: student engagement, academic rigor and expectations, relevance of instruction, instructional methods, personal relationships between students and teachers, and classroom culture.
- The YouthTruth *Overall School Experience Survey*, which is offered in both a high school and middle school version, gathers feedback from students about their experiences at their schools in six key areas: student engagement, academic rigor, relationships with teachers, relationships with peers, school culture, and, for high school surveys only, college and career readiness.
- The YouthTruth *Elementary School Survey*, for grades 3-5, gathers student feedback about their experiences with their teachers and classrooms. We can report the data gathered through this survey at the teacher level, as in the *Feedback for Teachers Survey*, or we can roll up results to the school level, as in the *Overall School Experience Survey*. Themes include: student engagement, academic rigor and expectations, relevance of instruction, instructional methods, personal relationships between students and teachers, and classroom culture.

If a school chooses to offer multiple surveys, the surveys can be administered separately or as part of a single, integrated survey experience.

Introduction

This document provides an overview of YouthTruth, our survey and reporting products, and technical documentation regarding:

- Survey development, design, and administration,
- Data processing and analysis procedures,
- Data reliability and validity, and
- Findings from existing survey data.

Because this paper's purpose is to describe the YouthTruth survey instruments and the nature of the data we have collected with these instruments, it does not include results from extensive variable relationships testing or significance testing.

This document is designed for general audiences without prior training in survey or statistical methods. It is particularly relevant for district and school leaders, researchers, program evaluators, and other parties interested in using validated student survey instruments to help districts, schools, and teachers improve or to evaluate the effects of programs, professional development, or interventions.

Finally, this document shares large portions of YouthTruth's survey instruments but does not represent the full survey instrument. Please note that survey content cannot be used without the expressed permission of YouthTruth.

Value of Student Surveys

The perceptions of beneficiaries are critical factors in evaluating the effectiveness of systems, programs, and interventions. Recently, there has been growing interest in making better use of beneficiary perceptions in program improvement.[1] The use of beneficiary perception data – from students, in this case – leads to a more nuanced understanding of organizational effectiveness, is a reliable predictor of teacher performance, and is a leading indicator that allows for mid-course adjustments before it is too late to achieve desired impact.[2]

Recent evidence suggests that student feedback should be a complementary component of school improvement and teacher evaluation initiatives alongside student test performance and classroom observations. The *Measures of Effective Teaching* (MET) study empirically links student perceptions to academic performance, finding that student perceptions predict teacher quality better than classroom observations do.[3] Another study appearing in the Journal of Educational Psychology found that students who perceived stronger connections between their schoolwork and their later life success had higher grades and lower absenteeism.[4]

While test scores and teacher value-added measures can be useful in measuring overall performance, it can be difficult to act on these measures because they are often reported after the student has left the classroom and because educators may find their meaning unclear. Student feedback can serve as an actionable, real-time barometer of both school and teacher factors that influence academic success.

Feedback from student surveys can provide detailed, contextual, and targeted data on a number of important markers of teacher and school performance. Student surveys are not necessarily summative in nature, so they can be administered at any point in the year. Additionally, student surveys can be used to understand student perceptions within any classroom and for any teacher, whereas the use of test scores is largely limited to specific

[1] Twersky, F. (2013). "Listening to Those Who Matter Most, the Beneficiaries." SSIR. http://www.ssireview.org/articles/entry/listening_to_those_who_matter_most_the_beneficiaries.
[2] Gates Foundation. (2013). "Ensuring Fair and Reliable Measures of Effective Teaching". *MET Project*.
[3] Gates Foundation. (2013). "Ensuring Fair and Reliable Measures of Effective Teaching". *MET Project*.

[4] Church, M. (2001). "Perceptions of Classroom Environment, Achievement Goals, and Achievement Outcomes." Journal of Educational Psychology, 93(1), 43-54.

subjects or grade levels. Student surveys, moreover, can serve as tools for evaluating the effectiveness of school-based interventions. Finally, in comparison to academic assessments or classroom observations, student surveys are cost-effective and easy to implement. For instance, some districts have found that student surveys cost one-sixth as much to implement per pupil as classroom observations or value-added estimates.[5]

Survey History & Development

Survey Development and Refinement

YouthTruth surveys ask questions that focus on critical areas of school and teacher practice. We have carefully developed and refined our surveys in deliberate stages over the last six years. In developing our pilot survey instrument in 2008, we completed a comprehensive review of the field of student surveys including more than 15 existing survey instruments. We drew many of the questions for the YouthTruth pilot, with permission, from other survey instruments that have been well-validated in the field, including the Chicago Consortium on School Research's *My School, My Voice* survey and the *Survey of Student Engagement* led by Indiana University's School of Education. Other pilot YouthTruth survey questions represented adaptations of existing survey questions that explored constructs related to school quality and teacher effectiveness. In this way, we paid careful attention to the content validity of our instrument. Additionally, we convened an advisory group that contributed substantial expertise to the design of the survey. This advisory group was made up of survey design experts, educators, district administrators, school leaders, university researchers, students, public officials, foundation staff, and non-profit leaders.

During the 2008-2009 school year, with the support of the Bill & Melinda Gates Foundation, we piloted the *Overall School Experience Survey* with more than 5,300 students in 20 high schools from Georgia, North Carolina, Washington, D.C., and Washington State. The Gates Foundation was interested in assessing the student experience in the schools they were supporting with funds for specific initiatives. The Gates Foundation asked the Center for Effective Philanthropy (CEP) to lead and execute the pilot because of CEP's deep experience in collecting and analyzing perceptual survey data for foundations.

Given the success of the pilot, we expanded YouthTruth during the 2009-2010 school year, surveying more than 15,000 students from 72 high schools spanning eight districts and networks in Arizona, Colorado, Florida, Georgia, North Carolina, Ohio, and Texas. Six of the 20 schools that participated in the YouthTruth pilot repeated the survey in 2009-2010 and three other pilot schools repeated the survey in subsequent years.

A formative evaluation of YouthTruth's progress conducted by researchers at Brandeis University in 2010 reported that, "high school leaders overwhelmingly believe that YouthTruth has been valuable for their schools." Among school and district leaders that participated in the first two years, 94 percent who responded to a follow-up survey stated that the survey

[5] Education First (2014). "Student Surveys: Measuring Students' Perceptions of Teacher Effectiveness." http://www.education-first.com/files/Strategies_for_Success_Student_Surveys.pdf

generated valuable information for schools. One school leader commented that YouthTruth "was a powerful vehicle for student voice." Although the evaluation identified several challenges facing YouthTruth, the report concluded that there was "a high potential of going to scale with YouthTruth."[6]

Developing Surveys for Different Age Groups

The *Overall School Experience Survey* was initially developed for students in grades 9-12. In summer 2012, in response to increasing inquiries from school and district leaders, we developed a version of the *Overall School Experience Survey* for grades 6-8. This survey targets many of the same concepts as the survey for grades 9-12. However, through extensive research, including literature reviews, focus groups and field tests with middle school students, we refined the survey to ensure that the questions were age-appropriate and relevant for grades 6-8. In summer 2013, using a similar process of testing and review, we developed a survey for grades 3-5, which can be used to gather feedback at both the school and the teacher level.

***Feedback for Teachers Survey* Development**

After two years gathering student perceptions about their teachers at an aggregate level through our *Overall School Experience* survey, YouthTruth developed a survey instrument focused explicitly on students' classroom experiences with their individual teachers. In creating the pilot *Feedback for Teachers Survey* instrument in 2011, we drew from two sources. First, we adapted relevant teacher-specific versions of items in the *Overall School Experience Survey* related to relationships and rigor. Second, early research from the MET study pointed to specific constructs that were associated with high-quality teaching. Informed by this research, we incorporated those items identified in the MET study as being most strongly associated with effective teaching. The first iteration of the *Feedback for Teachers Survey* was administered in January 2012 in 111 classrooms to approximately 2,000 students in the 2011-12 school year. After the first administration, YouthTruth further refined the survey instrument based on results from analysis and practitioner feedback. To date, YouthTruth's *Feedback for Teachers Surveys* have been administered in approximately 3,700 classrooms with nearly 35,000 student respondents.[7]

Appendix Tables 1-4 list the Likert questions included in each survey.

Additional Questions Addressed in YouthTruth Surveys

In addition to the Likert scale questions and factors referenced throughout this report, supplemental questions that address other elements of the student experience appear in the middle and high school *Overall School Experience Surveys*. These additional questions collect critical student perceptions by asking students to indicate:

[6] Bailis, L., et al. "Formative Evaluation of YouthTruth – Final Report." (2010). Prepared for The Bill and Melinda Gates Foundation.

[7] Approximately 12,000 students participated in an early version of the *Feedback for Teachers Survey* administered in partnership with the national teacher training organization, TNTP.

- Their school's greatest strength and greatest area for improvement, along with the option to comment about both selections
- Whether they have participated in supplemental academic support services, such as tutoring or after-school academic programming, along with a rating of the helpfulness of such services
- Whether they have participated in college and career readiness services, such as college entrance exam preparation or career counseling, along with a rating of the helpfulness of such services
- Whether the student believes that there is at least one adult in his or her school who he or she could ask for a job, scholarship or college recommendation
- Whether the student believes that there is at least one adult in his or her school who he or she could approach for help with a personal problem
- Whether the student wants to go to college and what the student expects to do after finishing high school
- Whether the student has ever considered dropping out of school and, if yes, the reason for considering dropping out (including falling behind in school and feeling unable to catch up, feeling like no one cared whether the student stayed in school, feeling unsafe at school, and other options)
- Indicators of obstacles to a student's optimal performance in school, such as family responsibilities, crime and violence, or extracurricular commitments.
- Indicators of whether the student has been physically, verbally, socially, or electronically bullied at school and, if the student has been bullied in these ways, the causes of such bullying, as the student perceives them (with response options including items such as the student's gender, sexual orientation, and race, among other student characteristics).

Additional Topics and Customization

YouthTruth also offers clients the opportunity to customize their surveys by adding questions about areas of particular interest. In 2012, we reviewed custom questions previously developed for specific clients, identified themes that garnered broad interest from schools and districts, and developed supplemental content related to these themes. In doing so, we consulted many existing instruments, such as the *California Healthy Kids Survey*, the *Learning Styles Inventory*, and the *New York City School Survey*, as well as a variety of external advisors with content-specific expertise. For instance, our work with the research staff at the Stupski Foundation in 2011 informed the development of our supplemental *Student Motivation and Grit* topic, with questions drawn or adapted from several validated inventories of student motivation, ownership, and engagement developed by researchers at Stanford University, the University of Pennsylvania, and other institutions. In summer 2013, we further refined supplemental questions by examining survey data we had collected from these question modules using quantitative analysis and by engaging with clients about the utility of individual questions.

To date, supplemental survey topics include: Student Motivation and Grit Scale, Student Voice and Leadership, Learning Styles, Project-Based Learning, STEM Education, School Safety, General Health, Emotional and Mental Health, Drugs and Alcohol, and Nutrition and Exercise.

We also assist school and district leaders in developing high-quality, customized survey questions to address other specific topics of interest.

Participating Schools

As a national nonprofit, YouthTruth operates with grant support and fee-for-service revenue. As a result, we do not administer surveys among a random or fully nationally representative sample of schools or students and, therefore, the comparative data should not be interpreted as representative of all U.S. schools and students. Nonetheless, the comparative data include a diverse representation of schools and students. Table 1 describes a range of school-level sample statistics from the grades 6-12 *Overall School Experience Survey* sample, alongside a comparison of these indicators across the U.S. population of public schools.

Given that the middle school *Overall School Experience Survey* was introduced only in the 2012-2013 school year, high school responses represent the largest of YouthTruth's comparative datasets. This survey's sample fairly evenly represents a range of U.S. geographies. Approximately sixty percent of the sample is evenly divided between large cities and rural areas, with another 16 percent of the schools drawn from small cities and 26 percent drawn from suburbs. Compared to the U.S. population of schools, the *Overall School Experience Survey* has a larger proportion of large city schools and smaller proportion of rural schools.[8] Distribution by school size is fairly consistent between the YouthTruth and the national samples. The YouthTruth sample includes a larger percentage of high poverty schools (defined as a school in which at least 70 percent of students qualify for free or reduced price lunch) and a somewhat higher proportion of schools designated for turnaround status. A larger proportion of YouthTruth schools have curricula focused on science, technology, engineering, and math (STEM); project-based learning; or subscribing to non-traditional models, such as early college, charter or vocational models.

[8] The geographical designations are drawn from the National Center for Education Statistics locale codes and are as follows (for more information, please see: http://nces.ed.gov/ccd/rural_locales.asp):

- Large city schools: school located in urbanized area and in a principal city with a population of >=250K,
- Small city schools: school located in urbanized area and in a principal city with a population of <250K,
- Suburban schools: school located in an urbanized area, but outside a principal city,
- Rural schools: school located more than 10 miles from an urbanized area.

Table 1. *Overall School Experience Survey* School-Level Sample Statistics[9]

	% of U.S. schools	% of sample	*n*[10]
School Level			
High school	48%	82%	282
Middle school	52%	14%	50
Elementary school	52%	4%	14
Geography			
Large city	12%	29%	84
Small city	11%	16%	45
Suburban	29%	26%	76
Rural	49%	29%	84
School Size			
Small (0 to 300)	29%	31%	90
Medium (301 to 800)	41%	36%	102
Large (over 800)	30%	33%	94
High Poverty	22%	38%	111
Early College	< 1%	17%	46
STEM	n/a	19%	53
Project-Based Learning	n/a	15%	42
Charter	5%	14%	39
Vocational	< 1%	4%	10
Turnaround	1%	3%	8

Survey Administration

We use a survey administration process that places the utmost emphasis on data accuracy and ease of school- or classroom-based administration. Because critical school improvement, professional development, and teacher evaluation decisions are made based on YouthTruth survey data, it is important that we gather student feedback in a valid manner and accurately link that feedback to the appropriate teachers and classes.

We offer numerous two-week survey windows in which districts and schools can participate. Schools and districts also have the option of choosing a custom survey window. During the administration window, administrators receive notifications of response rates – how many students have completed the survey overall and disaggregated by grade – on a regular basis. Surveys are currently offered in both English and Spanish. We encourage schools to meet a minimum response rate of 60 percent. Average response rates range from 70 percent to 84 percent across the instruments.

[9] Note: Data on the U.S. public school population is drawn from the National Center for Education Statistics "Common Core of Data."
U.S. Department of Education (2013). "Common Core of Data, 2010-2011." National Center of Education Statistics: http://nces.ed.gov/ccd/index.asp.

[10] "*n*" is shorthand for "sample size" and will be used throughout this report.

YouthTruth surveys can be administered online or on paper, though the overwhelming majority of surveys have been administered online. If students are taking the survey online, we prepare a set of student login codes that the school distributes. Schools plan a survey administration schedule to cycle students through computer labs, use classroom based laptops, or mobile or tablet devices. If students instead take the paper survey, they simply complete the survey "at their desks."

Sampling and Roster Verification

In the case of the *Feedback for Teachers Survey*, we work with client organizations to determine a sampling plan that fits their needs. Thus, students may provide feedback about one or more of their teachers. When students provide feedback about more than one teacher, the survey can be administered in a single sitting or in multiple sittings. The more complex, but most widely used, administration for the *Feedback for Teachers Survey* is a single-sitting online survey administration—which takes less instructional time compared to multiple sittings. In this scenario, students log in to the online survey using a unique identifier granting them access to a survey with questions about all of their participating teachers. To implement this type of administration, clients must submit student enrollment data as part of the class roster verification process. We then prepare that data in our FERPA- and PPRA-compliant data management system.[11] This process ensures that students are responding to survey questions only about teachers in whose classes they are currently enrolled.

Specifically, the district or school submits class roster data, including student identification numbers, teacher names, course names, and departments for all students and classrooms to be included in the survey. The data is then processed through a set of algorithms that reshapes and standardizes the data in preparation for upload to the survey tool. After processing, we send clients a report highlighting possible errors and summarizing the enrollment data. For example, schools receive a report pointing out classrooms that appear to contain fewer than five students, or more than 40 students, as well as teacher, course, and department names that appear to be misspelled or duplicated. Clients then have an opportunity to confirm the enrollment data internally and to correct any errors before the survey is opened to students.

An alternative means of completing the *Feedback for Teachers Survey* involves single or multiple sittings of paper survey administration. In this case, student login codes are linked to the teacher and class section, but are not unique to an individual student since they do not need to correspond to a given student's unique set of teachers.

[11] The Family Educational Rights and Privacy Act (FERPA) and the Pupil Privacy Rights Act (PPRA) are the two central federal laws governing the protection of educational records and personally identifiable information, such as student names and identification numbers.

Post-Survey Data Processing and Quality Control

When the school-based survey administration is complete, we run collected survey data through a rigorous and standardized cleaning, checking, and aggregation process. Newly collected survey data is cleaned and aggregated in our data management system and then folded into the larger comparative dataset.[12]

[12] The data cleaning process includes a number of tasks, including recoding data, summarizing factor variables, and determining which missing data should be excluded from analysis.

Analytic Methods & Products

Factors

Factor analysis is a data reduction technique for examining the underlying structure of a dataset to understand how variables relate to one another.[13] We regularly perform factor analysis on student data to: (1) better understand the structure of these data, (2) organize our survey instruments, analysis, and reporting in a way that is analytically rigorous, and (3) group survey questions in a way that helps clients construct meaning from the data.

The factors identified through factor analysis represent a way to understand summary-level data about overall school experience and feedback for teachers that would be difficult to assess by asking students about the summary themes directly. For example, it would not be advisable to ask a student to rate a school's overall culture. However, by capturing student perceptions of the core elements of school culture—through specific, age-appropriate questions about concepts students are in a position to observe—we can accurately aggregate these results into a measure summarizing school culture.

The most recent factor analysis was conducted in summer 2014 on data collected from students taking both the *Overall School Experience Survey* and the *Feedback for Teachers Survey*. Through this analysis, we identified six factors describing high school students' perceptions of their school and classroom experiences in the *Overall School Experience* S*urvey* and six factors describing students' perceptions of their teachers in the *Feedback for Teachers Survey*. Because the constructs in many of the questions in the two surveys are similarly framed, there is some overlap in factors across the two surveys. However, a number of differences emerge, likely because students are responding at different levels of analysis—schools and teachers—in the two surveys.

The six factors identified in the high school *Overall School Experience Survey* include: student engagement, academic rigor, relationships with teachers, school culture, college and career readiness, and relationships with peers. Six factors were identified in the *Feedback for Teachers Survey*, including: student engagement, academic rigor and expectations, relevance, instructional methods, personal relationships, and classroom culture. Appendix Tables 1 through 4 offer summaries of the questions included within each factor in each survey. Table 5 describes the reliability of factors, and tables 6 and 7 describe each question's correlation to the overall factor, known as the factor loading.

The following definitions summarize the concepts described by the questions contained in each factor.

[13] Specifically, we use principal factor analysis with oblique rotation to analyze variation in the data and identify a set of latent factors. We retained only factors that explained a substantial amount of variation in the data and grouped variables into a factor only if they were highly correlated with the overall factor itself. We retain only factors with Eigen values greater than 0.4 and include variables within factors only if the factor loadings are greater than 0.3. However, the majority of variables within a factor load at 0.5 or higher, with 30% of the factors loading at 0.7 or higher.

Table 2. Overall School Experience Survey Factors	
Student Engagement:	Describes the degree to which students perceive themselves as engaged with their school and their education.
Academic Rigor:	Describes the degree to which students feel they are challenged by their coursework and teachers.
Relationships with Teachers:	Describes the degree to which students feel they receive support and personal attention from their teachers.
Relationships with Peers:	Describes the degree to which students have supportive, collaborative relationships with their classmates.
School Culture:	Describes the degree to which students believe that their school fosters a culture of respect and fairness.
College & Career Readiness:	Describes the degree to which students feel equipped to pursue college and careers

Table 3. ***Feedback for Teachers Survey*** **Factors**	
Student Engagement:	Describes the degree to which the teacher fosters in students a love of learning and a desire to succeed.
Academic Rigor & Expectations:	Describes the degree to which the teacher poses challenging and substantive work to students, building a strong academic work ethic and critical thinking skills.
Relevance:	Describes the degree to which the teacher connects student learning with life inside and outside the classroom.
Instructional Methods:	Describes the degree to which the teacher uses techniques that probe for absorption and understanding, providing effective support to students when needed.
Personal Relationships:	Describes the degree to which the teacher supports students' academic success through positive interpersonal interactions.
Classroom Culture:	Describes the degree to which the teacher develops a classroom environment premised on respect, motivation, and organization.

To ensure that these results were not simply a product of the data we collected in a given year, but were consistent with other samples, the 2014 factor analysis of the *Overall School Experience Survey* was compared to annual factor analyses conducted since 2009. These analyses indicated that the 2013-2014 factor analysis results were consistent with results from prior years.

We also conducted extensive testing of these factor analyses in the *Feedback for Teachers Survey*. We first conducted these analyses on data collected in the 2011-2012 school year when the *Feedback for Teachers Survey* was piloted with a national teacher training organization. Next, we conducted the same analysis on a combined data set containing all data from 2011-2014 (i.e., all *Feedback for Teachers Survey* data). In these additional analyses, we produced factors consistent with or identical to the results described in this paper, despite changes to the order in which individual questions appeared in surveys between 2011 and 2014.

This consistency indicates that we have identified the underlying factors of this student perception data in both the *Overall School Experience Survey* and *Feedback for Teachers Survey*, and not simply factors produced by a particular sample.

Reliability Testing

In addition to factor analysis, we measure the internal consistency of both survey instruments' factors using a test of reliability known as Cronbach's alpha. Alpha is expressed as a number between 0 and 1, with a higher alpha indicating that the set of items in a factor are measuring the same construct.[14] Cronbach's alpha is a statistic used widely throughout education research to understand if test questions or survey questions intended to measure a given construct are indeed measuring that construct.

We use this measure to confirm that the questions within each factor are adequately related to the underlying factor. Appendix Table 5 displays the alphas for each factor across both survey instruments. With Cronbach's alphas ranging between 0.84-0.91 in the *Feedback for Teachers Survey*, 0.74 – 0.88 in the *Overall School Experience Survey* for grades 9-12, and 0.66 – 0.83 in the *Overall School Experience Survey* for grades 6-8, these results indicate that the questions grouped within each factor are highly correlated with the factor and truly measure the constructs we intend to measure with them.

We have replicated these analyses on historical YouthTruth Student Survey data within a variety of samples. In all instances, we have found measures of reliability consistent with the results described in this paper. Independent third party validation has confirmed the reliability and validity of YouthTruth surveys.[15]

Overall Sample, Comparison Groups, and Subgroup Reporting

One of the primary values of using the YouthTruth surveys is that we present student feedback within a comprehensive comparative context, including comparisons to the overall YouthTruth sample, a school's district, custom comparison groups, and a variety of student subgroups. These comparative data allow clients to better understand the relative position of their ratings both within and beyond their school and district context.

National Comparison

Although we do not claim to have a nationally representative sample of schools and students, we do have a large and robust dataset representing the experiences and perceptions of students from a wide range of environments, geographies, and school contexts. This comparative context informs participants' interpretation of their results, aiding educators and administrators to make improvements that are based on sound data. Within reports, results are

[14] The following rule of thumb applies when interpreting the quality of constructs and their alphas. Excellent: >0.9; Good: 0.8-0.9; Acceptable: 0.7-0.8; Questionable: 0.6-0.7; Poor: 0.5-0.6; Unacceptable: <0.5 [Kline, P. (1999). The handbook of psychological testing (2nd ed.). London: Routledge].

[15] Third party validation has been conducted by John Madura of the Neag School of Education at the University of Connecticut; a summary of findings is available upon request.

displayed along a percentile scale so that clients can compare their own ratings to those of other participating schools and teachers.

District and School Type Comparisons
In an effort to make comparisons more contextually meaningful, we provide clients with the opportunity to compare their data to that of smaller subsets of participants with similar characteristics as the client. For example, because most schools participate in the YouthTruth surveys alongside other schools within their local school district or network, most schools can compare their students' feedback to that of students from other schools in their districts.

We also offer a standard set of comparison groups that allow all clients to view the range of results received by subsets of schools meeting certain criteria related to poverty, school size, school type, and geography. These standard comparison groups include:

High-poverty:	Greater than or equal to 70% of a district or school's students receiving free or reduced price lunch.
Small schools:	Less than or equal to 300 students for high schools and less than or equal to 200 students for middle schools.
Large schools:	Greater than or equal to 1,200 students for high schools and greater than or equal to 800 students for middle schools.
STEM education:	Schools utilizing a curriculum focusing primarily on science, technology, engineering, and math.
Early college:	Schools that implement an early college model.
Large city schools:	Schools located in an urbanized area and in a principal city with a population greater than or equal to 250,000.
Small city schools:	Schools located in an urbanized area and in a principal city with a population of less than 250,000.
Suburban schools:	Schools located in an urbanized area, but outside a principal city, or located inside an urban cluster that is no more than 10 miles from an urbanized area
Rural schools:	Schools located more than 10 miles from an urbanized area or located in Census-defined rural territory.[16]

Demographic Questions and Student Subgroup Analysis
Finally, all YouthTruth surveys ask students a variety of demographic and other questions that allow for subgroup analyses. Secondary students can report the following information about themselves: grade level, gender, race and ethnicity, receipt of free or reduced price lunch, grades, and course enrollment. Elementary school students receive only two demographic questions: grade level and gender. Students are not required to answer any questions they do not wish to answer.

[16] The four geographic cohorts are defined based on collapsed categories using National Center for Education Statistics locale codes. For more information on NCES methodology, please visit http://nces.ed.gov/ccd/rural_locales.asp.

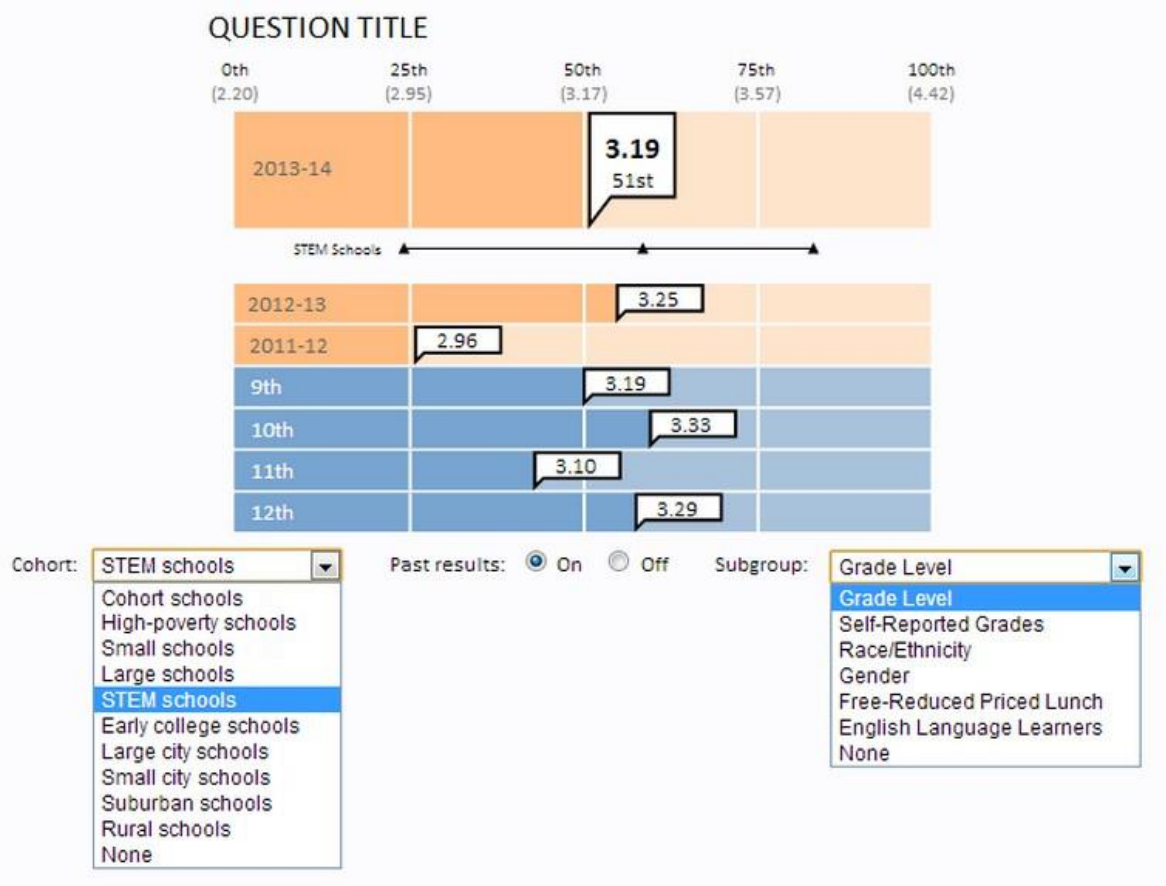
This in turn enables clients to view comparisons of differences in student perceptions across different student subgroups in their reports. Subgroups containing fewer than five respondents are suppressed in reports to protect student confidentiality.

Custom Comparisons and Subgroups
Custom comparison groups and custom subgroup analysis can also be requested to facilitate clients' understanding of the student experience across different school types, programs, or student characteristics.

Report Products
YouthTruth reports are delivered to clients through an interactive, online reporting system, which is password-protected and uses bank-grade security. Different reports are produced for different audiences: district or network leaders, school leaders, and teachers.

Figure 1 contains a sample of a key chart found in a YouthTruth report (Note: the brackets and associated text are for illustrative purposes only). This particular chart displays school culture ratings for a sample school.

Figure 1. Sample YouthTruth Chart



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School Rating and National Comparison: The orange bar at the top of the chart sets this school's rating in a comparative context: compared to all schools of the same grade level that have participated in the *Overall School Experience Survey*, this school's average student rating of 3.19 places it in the 51st percentile—that is, the school received an average rating higher than that of 51 percent of other participating schools. At the top of the chart, the numerical values appearing in parentheses beneath quartile labels indicate the average student rating, on a 1-5 scale, associated with each quartile. In this sample chart, for example, the 25th percentile is associated with an average student rating of 2.95.

District or School Type Comparisons: The thin black line with triangles below the top bar provides a second level of comparison. For most clients, this bar will enable a comparison between a school and the district overall, assuming that many or all schools from the district are participating. The user can also toggle the other comparison groups identified in the previous section using the "Cohort" drop-down menu.

Subgroup Analysis: The remainder of the chart enables clients to make further comparisons with their data alone. The blue section at the bottom of the chart contains a range of subgroup data described in the previous section, which the user may change using the drop-down menus. In reports based on the *Feedback for Teachers Survey*, school and district leaders can also see comparisons of student feedback across specific teachers and classrooms. Individual teacher reports based on the *Feedback for Teachers Survey* allow teachers to view student feedback across their classes, and by students' grade level and gender.

Trend Data: The second orange bar in this example (labeled "2012-13") allows clients to compare their current average rating to the average rating they received when they last participated in the YouthTruth survey, unless they are participating for the first time.

Other Features: The online reports contain numerous other features, including an executive summary, narratives of results related to each summary measure, interactive charts for each summary measure and each survey question, students' perceptions of their school's strengths and areas for improvement, and a file containing indexed students' qualitative comments.

General Results: YouthTruth Aggregate Analysis and Descriptive Statistics

This section of the report describes respondent sample statistics and general findings for the high school and middle school *Overall School Experience* and *Feedback for Teachers* surveys. General findings stem from analyses of comparative data associated with particular YouthTruth surveys. The *Overall Experience Survey* data come from over 192,000 students at 282 high schools and over 28,000 students at 50 middle schools, while *Feedback for Teachers Survey* data come from 7,000 students at 40 middle and high schools. In all, respondents to the *Feedback for Teachers Survey* included in this analysis provided feedback on 1,074 classes

taught by 638 teachers.[17] The *Elementary School Survey* analysis includes data from 2,188 students at 14 schools.

Sample Statistics

Table 4 provides respondent sample statistics for the students who have participated in a high school or middle school *Overall School Experience Survey*, the *Feedback for Teachers Survey*, or the *Elementary School Survey*, and who are included in YouthTruth's comparative data set. All four surveys have high response rates, with 75 percent, 83 percent, 70 percent, and 84 percent of students completing the four surveys, respectively.

Although representation from grade level to grade level varies slightly across all surveys, the distribution of grades within each survey is relatively normal. The high school data includes responses from a relatively low proportion of twelfth graders, most likely due to higher cumulative dropout rates and other forms of attrition. The middle school data contains greater representation of seventh-graders, possibly because the types of grade levels represented in middle schools can vary. While the sixth and eighth grades are occasionally located in other types of schools (e.g., primary, intermediate, or high schools), the seventh grade most reliably exists in middle schools.

Demographic data for respondents to the *Feedback for Teachers Survey* does not differ considerably from that for respondents to the *Overall Experience Survey*. Unlike administration of the *Overall Experience Survey*, administration of the *Feedback for Teachers Survey* typically takes place in a sample of classrooms at individual schools. Considering such sampling, the data from the *Feedback for Teachers Survey* will require more time to become representative of the full student population participating in YouthTruth.

[17] Many districts have collaborated with YouthTruth over a number of years, meaning that the total number of surveyed teachers and classrooms is considerably higher. The comparative data includes only the most recent responses from repeat clients.

Table 4. Student-Level Sample Statistics

	Overall School Experience			
	High School Sample	Middle School Sample	*Feedback for Teachers* Sample	*Elementary School Survey*[18]
n	108, 176	22,266	29,243[19]	2,188
Avg. Response Rate	76%	83%	70%	84%
Grade Level				
3rd	--	--	--	32%
4th	--	--	--	33%
5th	--	--	--	35%
6th	--	32%	9%	--
7th	--	35%	11%	--
8th	--	32%	11%	--
9th	27%	--	21%	--
10th	27%	--	19%	--
11th	24%	--	17%	--
12th	20%	--	12%	--
Gender				
Male	49%	51%	50%	51%
Female	51%	49%	50%	49%
Race				
American Indian or Alaska Native	1%	1%	2%	--
Asian	5%	6%	13%	--
Black or African-American	27%	15%	10%	--
Hispanic, Latino, or Spanish origin	40%	38%	41%	--
Native Hawaiian or Other Pacific Islander	0%	0%	1%	--
White	22%	29%	27%	--
Multiracial	4%	5%	3%	--
Other race/ethnicity	2%	5%	3%	--
Self-Reported Grades				
A	34%	34%	56%	--
B	37%	34%	34%	--
C	16%	11%	10%	--
D and lower	3%	2%	1%	--
Don't know	--	11%	--	--

[18] Includes responses from both the teacher- and school-level versions of this survey.

[19] A single student may respond to surveys regarding multiple teachers. This count and the associated response rate refer to the number of students in the sample. Elsewhere in this report, calculations refer to the number of student responses rather than the number of unique students.

Types of Classes Taken By Respondents				
Regular/Standard	62%	--	--	--
Special Education	3%	--	--	--
ESL/ELL/Bilingual	8%	--	--	--
Honors or Gifted	33%	--	--	--
Vocational or Technical	6%	--	--	--

Racial and Ethnic Background of YouthTruth Survey Respondents

The racial and ethnic background of respondents differs somewhat from that of public school students nationally.[20] Approximately 40 percent of the students in each survey self-identify as Hispanic, comprising the largest ethnic group that has participated in YouthTruth. Twenty-seven percent of respondents in the high school *Overall Experience Survey* identify as African-American/Black, followed by 22 percent of respondents identifying as White. For the middle school *Overall School Experience Survey*, 29 percent and 15 percent of respondents identify as White and African-American/Black, respectively. Remaining racial and ethnic groups each comprise less than 10 percent of the sample. In comparison to students nationally, respondents to the YouthTruth surveys are disproportionately non-White: 51 percent, 24 percent, and 16 percent of students nationally are White, Hispanic, and African-American, respectively. The proportion of YouthTruth respondents identifying as Asian or Native American is consistent with the national population.[21]

Findings

The tables remaining in this section highlight factor-level findings across the middle and high school *Overall Experience Survey* and *Feedback for Teachers Survey* and the *Elementary School Survey*, as well as results disaggregated by grade, gender, and race and ethnicity for each survey.

[20] There are differences of only 1-3 percentage points between the racial distributions of students in any given grade and those of public school students overall. Therefore, we use the latter group to better infer representation across our entire respondent sample.

[21] U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1996–97 through 2010–11; and National Public Elementary and Secondary Enrollment by Race/Ethnicity Model, 1994–2010. (This table was prepared by YouthTruth in August 2014.)

Table 5—High School *Overall School Experience Survey*: Summary of Findings

Table 5 contains descriptive statistics for the survey's six factors: student engagement, academic rigor, relationships with teachers, school culture, relationships with peers, and college and career readiness. The first column contains the percent of students responding with ratings of fours and fives to the questions within the factor, indicating favorable responses. There is substantial variation in favorability across these areas, with 75 percent of students in the comparative dataset rating academic rigor favorably and 42 percent of students rating school culture favorably.[22] The following columns include both student- and school-level averages, standard deviations, and counts for each factor.

Average student and school ratings are all above the scale's mid-point of three, especially among the factors rated most favorably, indicating a somewhat non-normal distribution among students.

Table 5. High School *Overall School Experience Survey*: Student & School Ratings

		Average Rating (Standard Deviation)		*n*	
	% Responding 4s & 5s	Students	Schools	Students	Schools
Student Engagement	67%	3.71 (0.88)	3.75 (0.83)	79,209	155
Academic Rigor	75%	3.88 (0.91)	3.94 (0.85)	102,644	235
Relationships with Teachers	51%	3.39 (0.90)	3.54 (0.82)	102,427	235
School Culture	42%	3.15 (0.95)	3.29 (0.86)	104,653	235
College & Career Readiness	55%	3.39 (1.05)	3.49 (0.98)	99,568	214
Relationships with Peers	58%	3.59 (0.82)	3.68 (0.73)	14,461	40

[22] Calculating the percent of 4s and 5s for factors is less straightforward than calculating the percent of 4s and 5s for a specific question. Factors are calculated by averaging the responses to the questions in a given factor for respondents who answered every question; respondents with missing data in any factor's question (amounting, on average, to 3% of respondents for a given factor) are excluded. For factor favorability ratings, we use rounding to determine the percent of 4s and 5s: any non-missing respondent with an average factor rating greater than 3.5 is counted as rating favorably.

Table 6—High School *Overall School Experience Survey*: Findings by Grade, Gender, Race, and Ethnicity

Grade Level
A clear grade level trend emerges across all six factors, with ninth graders rating the highest, followed by tenth and eleventh graders. Twelfth graders are relatively consistent with tenth and eleventh graders, although they indicate more positive perceptions of their relationships with teachers and college and career readiness than eleventh graders do, on average. A possible explanation for this difference is that some level of attrition has occurred prior to and during the 12th grade, leaving behind the more satisfied and successful students.

Gender
There are small differences between female and male students in measures of student engagement and academic rigor, with ratings from female students exceeding ratings from male students by approximately 3 percent.

Race/Ethnicity
There are a variety of differences between the three racial and ethnic groups with the greatest representation – Black, Hispanic, and White. In the measures that are most similar to traditional educational outcome measures – student engagement, academic rigor, and college and career readiness – Black students rate higher than do students in other groups, followed by Hispanic students, and then White students. However, the trend changes when measuring indicators of more relational dimensions, including relationships with teachers, relationships with peers, and school culture. On these measures, White students rate the highest of the three groups.

Other racial groups with smaller surveyed populations exhibit differences, as well. Students identifying as American Indian or Alaska Native rate lower on many survey themes, while students identifying as Asian rate higher in many areas. Students identifying as Native Hawaiian or Other Pacific Islander comprise a very small number of respondents relative to other surveyed racial or ethnic groups (n=62).

Table 6. High School *Overall School Experience Survey*: Average Student Ratings By Subgroup

n = 104,653

	Student Engagement	Academic Rigor	Relationships with Teachers	School Culture	College & Career Readiness	Relationships with Peers
Grade						
9th	3.79	3.96	3.44	3.29		3.63
10th	3.69	3.86	3.36	3.12	3.36	3.58
11th	3.67	3.85	3.36	3.08	3.34	3.60

12th	3.70	3.85	3.42	3.09	3.42	3.62
Gender						
Female	3.78	3.95	3.39	3.14	3.41	3.60
Male	3.66	3.83	3.42	3.17	3.41	3.64
Race/Ethnicity						
American Indian or Alaska Native	3.47	3.68	3.36	3.09	3.30	3.69
Asian	3.79	3.98	3.58	3.32	3.46	3.82
Black or African-American	3.83	3.97	3.30	3.06	3.53	3.60
Hispanic, Latino, or Spanish origin	3.70	3.88	3.37	3.19	3.37	3.54
Native Hawaiian or Other Pacific Islander	3.68	3.89	3.80	3.55	3.43	3.77
White	3.64	3.83	3.54	3.20	3.34	3.71
Multiracial	3.62	3.78	3.39	3.04	3.30	3.58
Other race/ethnicity	3.56	3.76	3.25	3.03	3.26	3.47

Table 7—Middle School *Overall School Experience Survey*: Summary of Findings The themes highlighted in this survey – academic rigor, relationships with teachers, relationships with peers, and school culture – represent topical constructs that emerged from preliminary analysis into data gathered in this instrument's pilot. Further research is needed to establish whether these constructs will continue to adhere as factors. Nonetheless, the data indicates patterns that are consistent with the results of the high school *Overall School Experience Survey*.

Academic rigor is the highest-rated theme, with 81 percent of students responding with ratings of fours and fives.[23] Middle school students respond less favorably with regard to their school culture. Overall, however, middle schools rate their overall school experience quite high. The lowest rated summary measure is school culture, with an average student rating of 3.48, while the highest is academic rigor with an average student rating of 4.04.

Table 7. Middle School *Overall School Experience Survey*: Student & School Ratings

n = 22,266

		Average Rating (Standard Deviation)		*n*	
	% Responding 4s & 5s	Students	Schools	Students	Schools
Student Engagement	65%	3.74 (0.91)	3.71 (0.88)	9,416	25
Academic Rigor	81%	4.04 (0.79)	4.03 (0.76)	20,635	49
Relationships with Teachers	65%	3.69 (0.87)	3.72 (0.81)	20,301	49
Relationships with Peers	56%	3.55 (0.79)	3.58 (0.74)	9,356	25
School Culture	58%	3.48 (0.95)	3.49 (0.87)	20,481	49

[23] The percent of middle school students rating favorably was calculated in the same manner as for high school students in Table 5.

Table 8—High School *Overall School Experience Survey*: Findings by Grade, Gender, Race, and Ethnicity

Middle school data reveals a clear pattern of younger students rating their school experience higher than older students, like the data for the high school *Overall School Experience Survey*. This pattern is even stronger among middle school students than it is among high school students. Across all themes, sixth graders generally have more positive views than eighth graders do, with their ratings of school culture nearly half a point higher than eighth graders' ratings.

Differences by gender, race, and ethnicity, however, are smaller in the middle school *Overall School Experience Survey* as compared to the high school *Overall School Experience Survey*. Female students consistently rate lower than do male students across all four areas, but the differences appear to be nominal. Differences between White and Hispanic students are relatively small, with no consistent pattern. However, as we find in the high school survey, Black students rate lower than do White and Hispanic students in measures of relationships with teachers and peers and school culture.

Table 8. Middle School *Overall School Experience Survey*: Average Student Ratings By Subgroup

n = 22,266

	Student Engagement	Academic Rigor	Relationships with Teachers	School Culture	Relationships with Peers
Grade					
6th	3.95	4.21	3.87	3.75	3.59
7th	3.68	4.01	3.65	3.43	3.52
8th	3.58	3.94	3.57	3.31	3.55
Gender					
Female	3.81	4.05	3.70	3.47	3.59
Male	3.71	4.07	3.72	3.53	3.54
Race/Ethnicity					
American Indian or Alaska Native	3.76	4.03	3.65	3.58	3.52
Asian	3.86	4.08	3.82	3.68	3.78
Black or African-American	3.74	4.06	3.51	3.25	3.42
Hispanic, Latino, or Spanish origin	3.75	4.06	3.75	3.49	3.56
Native Hawaiian or Other Pacific Islander	3.62	3.78	3.76	3.27	3.81
White	3.76	4.04	3.73	3.59	3.67
Multiracial	3.60	3.96	3.56	3.26	3.38
Other race/ethnicity	3.62	4.06	3.63	3.54	3.44

Table 9—*Elementary School Survey*: Summary of Findings

The *Elementary School Survey* may be administered at the school or the teacher level; the table below includes responses from students who took surveys at both levels of analysis. The themes highlighted in this survey – academic rigor and expectations, instructional methods, relevance, classroom culture, personal relationships, and student engagement – are not fully formed factors. Since the instrument is relatively new, factor analysis will be forthcoming as the dataset grows.

Nonetheless, the data indicate patterns that are consistent with the results of the secondary *Feedback for Teachers Survey*. Please note that unlike other surveys included in this report, the *Elementary School Survey* is administered on a scale of 1 to 3, rather than a scale of 1 to 5. This is consistent with best practices suggesting that, because young children have comparatively less sophisticated linguistic and cognitive processing skills than adults, they are better able to map their perceptions to specific response options when there are fewer response options available – ideally, "not more than two or three response categories."[24]

Table 9. *Elementary School Survey*: Student & School Ratings

Student *n* = 2,358

		Average Rating (Standard Deviation)	
	% Responding "Yes"[25]	Students	Schools
Academic Rigor & Expectations	86%	2.72 (0.32)	2.71 (0.32)
Instructional Methods	82%	2.65 (0.35)	2.65 (0.35)
Relevance	78%	2.61 (0.36)	2.61 (0.37)
Classroom Culture	32%	2.21 (0.40)	2.21 (0.37)
Personal Relationships	76%	2.68 (0.38)	2.67 (0.36)
Student Engagement	39%	2.69 (0.33)	2.69 (0.31)

[24]de Leeuw, E. D. (2001). Improving data quality when surveying children and adolescents: Cognitive and social development and its role in questionnaire construction and pretesting. In Annual Meeting of the Academy of Finland: Research Programs, Public Health Challenges, and Health and Welfare of Children and Young People. See also Borgers, N., & Hox, J. J. (2000, October). Reliability of responses in questionnaire research with children. In Fifth international conference on logic and methodology, Cologne, Germany

[25] These factors are summary measures including multiple items which are calculated at the respondent level before being summarized. Responses were counted as "yes" when the average rating of the constituent questions was greater than or equal to 2.5 – that is, closer on a 1-3 scale to "yes" than to "sometimes."

Table 10—*Elementary School Survey*: Findings by Grade and Gender
There are essentially no gender differences among students responding to the *Elementary School Survey*. Differences between students in different grades are minimal, but follow the same pattern as differences in the *Overall School Experience Survey*. In general, third graders rate higher than fourth and fifth graders; the average difference is approximately one-tenth of a point.

YouthTruth does not gather self-reported race or ethnicity data from elementary school respondents.

Table 10. *Elementary School Survey Survey*: Average Student Ratings By Subgroup

n = 2,358

	Academic Rigor & Expectations	Instructional Methods	Relevance	Classroom Culture	Personal Relationships	Student Engagement
Grade						
3rd	2.76	2.64	2.62	2.25	2.70	2.73
4th	2.74	2.68	2.65	2.26	2.70	2.72
5th	2.68	2.64	2.58	2.12	2.62	2.63
Gender						
Female	2.74	2.67	2.63	2.20	2.70	2.70
Male	2.70	2.63	2.60	2.22	2.66	2.68

Table 11—*Feedback for Teachers Survey*: Summary of Findings[26]

Although the factors in the *Feedback for Teachers* and *Overall School Experience* surveys are not identical, in general it is clear that students rate their individual teachers higher than they rate their schools.

The most striking difference occurs with respect to the factor related to relationships: 51 percent of high school students and 65 percent of middle school students rated their relationships with teachers in their school favorably in the *Overall School Experience Survey*. However, in the *Feedback for Teachers Survey,* 81 percent of all middle and high school respondents rated their relationships with individual teachers favorably.

Accordingly, average ratings at the student and teacher level are quite high, with most above 4.0.

Table 11. *Feedback for Teachers* Student & Teacher-Level Factor Ratings

Student *n* = 29,243
Teacher *n* = 589

		Average Rating (Standard Deviation)	
	% Responding 4s & 5s	Students	Teachers
Academic Rigor & Expectations	79%	4.18 (0.81)	4.17 (0.71)
Instructional Methods	77%	4.14 (0.88)	4.14 (0.77)
Relevance	65%	3.74 (1.02)	3.75 (0.92)
Classroom Culture	68%	3.88 (0.92)	3.88 (0.79)
Personal Relationships	81%	4.22 (0.88)	4.22 (0.78)
Student Engagement	82%	4.17 (0.84)	4.17 (0.76)

[26] Ratings in the *Overall School Experience Survey* tables were aggregated at the student and school level, whereas the ratings in Table 11 are aggregated at the student and teacher level. YouthTruth also reports school-level results from this survey back to schools. Teacher-level results are discussed here, as teachers are the primary unit of analysis.

Table 12—*Feedback for Teachers Survey:* Findings by Grade, Gender, Race, and Ethnicity There are essentially no gender differences and minimal differences by race and ethnicity, with most differences between one-tenth and three-tenths of a point. Differences between students in different grades, however, mirror such differences in the *Overall School Experience Survey*. In general, there is a steady decline in ratings as grade levels increase, ending with an uptick among 12th graders. On average, approximately four-tenths of a point separates the lowest- and highest-rating grades.

Table 12. *Feedback for Teachers* Student-Level Factor Ratings, By Subgroups

n = 29,243

	Academic Rigor & Expectations	Instructional Methods	Relevance	Classroom Culture	Personal Relationships	Student Engagement
Grade						
6th	4.40	4.31	3.94	4.02	4.44	4.47
7th	4.25	4.21	3.81	3.80	4.26	4.28
8th	4.17	4.14	3.72	3.77	4.15	4.20
9th	4.10	4.09	3.66	3.78	4.15	4.11
10th	4.05	3.98	3.55	3.83	4.13	4.02
11th	4.17	4.13	3.71	3.97	4.25	4.12
12th	4.24	4.18	3.89	4.07	4.35	4.18
Gender						
Female	4.19	4.14	3.70	3.87	4.23	4.19
Male	4.15	4.11	3.74	3.89	4.22	4.14
Race/Ethnicity						
American Indian or Alaska Native	4.16	4.11	3.72	3.90	4.19	4.14
Asian	4.26	4.22	3.82	3.95	4.32	4.27
Black or African-American	4.14	4.12	3.73	3.82	4.15	4.13
Hispanic, Latino, or Spanish origin	4.20	4.18	3.74	3.94	4.24	4.19
Native Hawaiian or Other Pacific Islander	4.29	4.26	4.01	4.04	4.45	4.35
White	4.18	4.10	3.71	3.84	4.26	4.18
Multiracial	4.12	4.13	3.61	3.73	4.13	4.16
Other race/ethnicity	4.13	4.14	3.69	3.84	4.16	4.10

Appendix

Part A. Appendix Tables

Appendix Table 1. High School Overall School Experience Survey Likert-Scale Questions

Student Engagement

I take pride in my school work
I try to do my best in school
I enjoy coming to school most of the time
My teachers' expectations make me want to do my best
What I learn in class helps me outside of school

Academic Rigor

In order to receive a good grade, I have to work hard in my classes
The work that I do for my classes makes me really think
I can tell that my teachers understand the subjects that they are teaching
My teachers give me assignments that help me to better understand the subject
Most of my teachers don't let people give up when the work gets hard
Most of my teachers want us to use our thinking skills, not just memorize things
Most of my teachers want me to explain my answers – why I think what I think
In most of my classes, we learn a lot almost every day
In most of my classes, we learn to correct our mistakes

Academic Rigor – English

In order to receive a good grade in my English class, I have to work hard
The work that I do for my English class makes me really think
I can tell that my English teacher understands the subject that (s)he is teaching
My English teacher gives me assignments that help me to better understand the subject

Academic Rigor – Math

In order to receive a good grade in my Math class, I have to work hard
The work that I do for my Math class makes me really think
I can tell that my Math teacher understands the subject that (s)he is teaching
My Math teacher gives me assignments that help me to better understand the subject

Relationships with Teachers

How many of your teachers are willing to give extra help on school work if you need it?
How many of your teachers try to be fair?
How many of your teachers believe that you can get a good grade if you try?

How many of your teachers are not just satisfied if you pass, they care if you're really learning?
How many of your teachers connect what you're learning in class with your life outside of school?
How many of your teachers make an effort to understand what your life is like outside of school?

Relationships with Peers

I really feel like part of my school's community
I can usually be myself around other students at this school
Most students at this school are friendly to me
How often do you work with other students for your classes because your teachers ask or tell you to?
How often do you work with other students for your classes, even when your teacher doesn't ask or tell you to?

School Culture

Most students in this school treat adults with respect
Most adults in this school treat students with respect
Most students in this school want to do well in class
Discipline in this school is fair

College & Career Readiness

My school has helped me develop the skills and knowledge I will need for college-level classes
My school has helped me understand the steps I need to take in order to apply to college
My school has helped me figure out which careers match my interests and abilities
My school has helped me understand the steps I need to take in order to have the career that I want

Appendix Table 2. Middle School Overall School Experience Survey Likert-Scale Questions

Academic Rigor

In order to get a good grade, I have to work hard in my classes
The work that I do for my classes makes me really think
My teachers explain things in a way that I understand
My teachers give me assignments that really help me learn
My school is helping me learn the material I will need for high school
I feel like I will be ready for high school classes when I finish middle school
Most of my teachers want us to use our thinking skills, not just memorize things
Most of my teachers want me to explain my answers – why I think what I think
In most of my classes, we learn to correct our mistakes
Most of my teachers don't let people give up when the work gets hard
In most of my classes, we learn a lot almost every day

Academic Rigor – English

The work that I do for my English/Language Arts class makes me really think
In order to get a good grade, I have to work hard in my English/Language Arts class
My English/Language Arts teacher gives me assignments that really help me learn
My English/Language Arts teacher explains things in a way that I understand

Academic Rigor– Math

The work that I do for my Math class makes me really think
In order to get a good grade, I have to work hard in my Math class
My Math teacher gives me assignments that really help me learn
My Math teacher explains things in a way that I understand

Relationships with Teachers

How many of your teachers are willing to give extra help on school work if you need it?
How many of your teachers try to be fair?
How many of your teachers believe that you can get a good grade if you try?
How many of your teachers are not just satisfied if you pass, they care if you're really learning?
How many of your teachers connect what you're learning in class with your life outside of school?
How many of your teachers try to understand what your life is like outside of school?

Relationships with Peers

I really feel like a part of my school's community
I can usually be myself around other students at this school
Most students at this school are friendly to me
How often do you work with other students for your classes because your teachers ask or tell you to?
How often do you work with other students for your classes, even when your teacher doesn't ask or tell you to?

School Culture

I think my classmates want to do well in class
Most students in this school treat adults with respect
Most adults in this school treat students with respect
Discipline in this school is fair

Student Engagement

I enjoy coming to school most of the time
I take pride in my school work
What I learn in class helps me outside of school

Appendix Table 3. Feedback for Teachers Survey Likert-Scale Questions (Grades 6-12)

Academic Rigor & Expectations
How well do your teacher's assignments help you understand the subject?
In this class, how much do you learn every day?
How much does the work that you do for your class make you really think?
How well does your teacher understand the subject that (s)he is teaching?
How much effort does your teacher expect you to give in class?
How much does your teacher want you to use your thinking skills, not just memorize things?
When the work gets difficult, how hard does your teacher expect you to try?
Instructional Methods
How often does your teacher ask students to explain more about answers they give?
How often does your teacher want you to explain your answers – why you think what you think?
How often does your teacher ask questions to be sure that you and your classmates are following along when (s)he is teaching?
If someone doesn't understand something, how often does your teacher explain it another way?
In this class, how much have you learned to correct your mistakes?
Relevance
How much does your teacher try to understand what your life is like outside of school?
How much do you think your teacher cares about you?
How much does what you learn in this class help you outside of school?
How well does your teacher connect what you're learning in class with your life outside of school?
Classroom Culture
How many of your classmates behave the way your teacher wants them to?
How much is student behavior under control in this class?
How respectful are students to the teacher in this class?
How often does your class stay busy and not waste time?
How many students in this class want to do well?
Personal Relationships
How fair is your teacher?
How respectful is your teacher to students in this class?
How much does your teacher believe that you can get a good grade if you try?
How willing is your teacher to give extra help on school work if you need it?
How fair is discipline in this class?

Student Engagement

How much do you try to do your best in this class?
How much pride do you take in your work for this class?
How much do your teacher's expectations make you want to do your best?
How often do you enjoy coming to this class?

Appendix Table 4. Elementary School Survey Likert-Scale Questions (Grades 3-5)

Academic Rigor & Expectations

Does your homework help you learn?
Do you learn a lot in your class every day?
Does your teacher let you give up when the work gets hard?
Does the work you do in class make you really think?
Do you think your teacher wants you to work your hardest?

Instructional Methods

Does your teacher ask you if you understand what you are learning?
Does your teacher explain things in ways you can understand?
Does your teacher let you explain your ideas?
When you make a mistake, does your teacher help you correct it?
Does your teacher ask you to show your work?

Relevance

Do you learn interesting things in class?
Does what you learn in class help you outside of school?
Do you think your teacher cares about you?
Does your teacher ask you about your life at home?

Personal Relationships

Is your teacher fair to you?
Does your teacher give you extra help if you need it?
Does your teacher tell you that you can do well if you work hard?
Does your teacher treat you with respect?
Do you like the way your teacher treats you when you need help?

Classroom Culture

Do students behave well in your class?
Do students in your class treat the teacher with respect?
Does your class stay busy and not waste time?
Can you find the things you need in your classroom?

Student Engagement

Does your teacher want you to do your best?
Do you like coming to your class?

Appendix Table 5. Reliability of Factor Variables

	Factors	Cronbach's Alpha
Feedback for Teachers Survey (Grades 6-12)	Student Engagement	0.84
	Academic Rigor & Expectations	0.90
	Relevance	0.86
	Instructional Methods	0.91
	Personal Relationships	0.90
	Classroom Culture	0.90
Overall School Experience Survey (Grades 9-12)	Student Engagement	0.82
	Academic Rigor	0.83
	Relationships with Teachers	0.86
	School Culture	0.78
	College & Career Readiness	0.88
	Relationships with Peers	0.74
Overall School Experience Survey (Grades 6-8)	Student Engagement	0.66
	Academic Rigor and Preparation	0.84
	Relationships with Teachers	0.81
	Relationships with Peers	0.71
	School Culture	0.68

Appendix Table 6. Overview of Factor Loadings: Feedback for Teachers Survey (Grades 6-12)

Factors & Questions	Factor Loading
Student Engagement	
How much do you try to do your best in this class?	0.77
How much pride do you take in your work for this class?	0.82
How much do your teacher's expectations make you want to do your best?	0.70
How often do you enjoy coming to this class?	0.70
Academic Rigor & Expectations	
How well do your teacher's assignments help you understand the subject?	0.80
In this class, how much do you learn every day?	0.78
How much does the work that you do for your class make you really think?	0.72

How well does your teacher understand the subject that (s)he is teaching?	0.73
How much effort does your teacher expect you to give in class?	0.74
How much does your teacher want you to use your thinking skills, not just memorize things?	0.77
When the work gets difficult, how hard does your teacher expect you to try?	0.75

Relevance

How much does your teacher try to understand what your life is like outside of school?	0.80
How much do you think your teacher cares about you?	0.77
How much does what you learn in this class help you outside of school?	0.70
How well does your teacher connect what you're learning in class with your life outside of school?	0.77

Instructional Methods

How often does your teacher ask students to explain more about answers they give?	0.85
How often does your teacher want you to explain your answers – why you think what you think?	0.84
How often does your teacher ask questions to be sure that you and your classmates are following along when (s)he is teaching?	0.80
If someone doesn't understand something, how often does your teacher explain it another way?	0.79
In this class, how much have you learned to correct your mistakes?	0.75

Personal Relationships

How fair is your teacher?	0.86
How respectful is your teacher to students in this class?	0.82
How much does your teacher believe that you can get a good grade if you try?	0.75
How willing is your teacher to give extra help on school work if you need it?	0.72
How fair is discipline in this class?	0.77

Classroom Culture

How many of your classmates behave the way your teacher wants them to?	0.86
How much is student behavior under control in this class?	0.82
How respectful are students to the teacher in this class?	0.83
How often does your class stay busy and not waste time?	0.75
How many students in this class want to do well?	0.74

Appendix Table 7. Overview of Factor Loadings: Overall School Experience Survey (Grades 9-12)

Factors & Questions	Factor Loading
Student Engagement	
I take pride in my schoolwork.	0.80
I enjoy coming to school most of the time.	0.52
My teachers' expectations make me want to do my best.	0.57
I try to do my best in school.	0.77
What I learn in class helps me outside of school.	0.51
Academic Rigor	
In order to receive a good grade, I have to work hard in my classes.	0.76
The work that I do for my classes makes me really think.	0.74
I can tell that my teachers understand the subjects that they are teaching.	0.55
My teachers give me assignments that help me to better understand the subject.	0.54
Relationships with Teachers	
How many of your teachers are willing to give extra help on schoolwork if you need it?	0.78
How many of your teachers try to be fair?	0.80
How many of your teachers believe you can get a good grade if you try?	0.68
How many of your teachers are not just satisfied if you pass, they care if you're really learning?	0.71
How many of your teachers connect what you're learning in class to life outside of the classroom?	0.61
How many of your teachers make an effort to understand what your life is like outside of school?	0.58
School Culture	
Most students in this school treat adults with respect.	0.78
Most adults in this school treat students with respect.	0.61
Most students in this school want to do well in class.	0.65
Discipline in this school is fair.	0.59
College & Career Readiness	
My school has helped me develop the skills and knowledge I will need for college level classes.	0.53
My school has helped me understand the steps I need to take in order to apply to college.	0.73

My school has helped me figure out which careers match my interests and abilities.	0.85
My school has helped me understand the steps I need to take in order to have the career that I want.	0.90

Relationships with Peers

I really feel like part of my school's community.	0.62
I can usually be myself around other students at this school.	0.70
Most students at this school are friendly to me.	0.69
How often do you work with other students for your classes because your teachers ask or tell you to?	0.44
How often do you work with other students for your classes, even when your teacher doesn't ask or tell you to?	0.44

Part B. YouthTruth Student Survey Staff Biographies

Dr. Ellie Buteau, PhD, Vice President of Research
Ellie oversees the design, execution, and writing of research and manages the Center for Effective Philanthropy's research team. She is a leading authority on foundation strategy and performance assessment, and an expert in research design and statistical analysis. Before joining CEP in 2004, Ellie led the design and analysis of education and health-related research projects at Cornell University, Tufts University, and a variety of nonprofit organizations. She taught courses on statistics at Tufts University and published research in a number of journals. She received a Ph.D. in Social-Personality Psychology from City University of New York Graduate Center and a B.A. in Psychology, awarded with Great Distinction, from McGill University in Montreal.

Jen Vorse Wilka, Executive Director
Jen leads YouthTruth, a rapidly growing national nonprofit that harnesses student perceptions to help K-12 educators accelerate improvements in their schools and classrooms. She is passionate about making education systems more responsive to the needs and aspirations of the students they serve. Prior to joining CEP in 2011, Jen worked as a consultant to a school network serving 1.4 million students across Latin America, including 25,000 students in Ecuador, where she was based. Previously, she worked at The Boston Foundation on grant making, public policy and strategic initiatives in education, youth development, and criminal justice, and also served as a Rappaport Fellow in the Boston Mayor's Office. Jen holds a Masters in Public Policy from Harvard's Kennedy School of Government, where she completed an award-winning thesis analyzing the unintended consequences of zero tolerance school discipline policies, and graduated with a B.A. in English from Williams College.

Sonya Kendall Heisters, Manager of Partnerships & Outreach
Sonya brings a decade of experience in education management to building district and school partnerships. Prior to joining CEP in 2013, Sonya served as Associate Director of Engagement for the Presidio Graduate School, where she directed all aspects of the department of Alumni Affairs and recruited top MBA and MPA applicants for the graduate program. Her K-12 education experiences include serving as Director of University Tutoring, the Northern California West Tutoring Program Manager for Kaplan Test Prep, and Site Director of a K-5 after school program and summer camp in Graton, CA. Sonya graduated magna cum laude from Lesley University in Cambridge, MA with degrees in English Literature and Non-Profit Management with a focus on secondary education programs and curriculum. She completed her student teaching practicum at Cambridge Rindge and Latin High School.

Whitney Ivie, Client Services & Operations
Whitney partners with District, Network, and School administrators to ensure continued success at each stage of survey implementation. She manages internal resources and processes for report delivery and contributes to the definition and scope of YouthTruth's objectives. Prior to joining YouthTruth in 2010, Whitney worked for mission-driven non-profit organizations in Montana and Massachusetts. A passion for data driven decision making and utilizing thoughtful feedback for positive change has guided her throughout her career. Whitney is a graduate of Rocky Mountain College where she earned her B.A. in Communication Studies.

Sachi Takahashi-Rial, Partnerships
Sachi works to build YouthTruth's relationships and partnerships through leading webinars, attending conferences, and meeting education leaders across the US. She also supports districts participating in YouthTruth surveys to interpret and effectively use student perception data to accelerate

improvements. Before joining YouthTruth, Sachi worked at the school, district, and state levels in San Jose, Boston, Washington D.C., and North Carolina. In these roles, she ran afterschool programs, led a team of City Year Americorps Corps Members, and researched local and state assessments. Most recently, she served in North Carolina's Department of Public Instruction. There she analyzed the time students spend on local and state testing requirements, and identified strategies for how the state can support districts in making the most out of benchmark assessments. Sachi received her MPP from Duke's Sanford School of Public Policy and her BA in Economics from UC Berkeley**.**

Jeremy Gormley, Senior Analyst
Jeremy assists with the survey administration and data analysis processes, as well as co-manages research projects on national YouthTruth data. Working closely with fellow research analysts, Jeremy is committed to providing school leaders and teachers with valuable data-driven insights to enhance the effectiveness of students' learning experiences. A former middle school math teacher in Oklahoma and Washington, D.C., Jeremy is dedicated to ensuring a quality education for students of all backgrounds and is an advocate for the importance of quantitative analyses of student perception data. Jeremy graduated from Brandeis University in Waltham, MA and received a Post-Baccalaureate in Computer Science from Georgetown University.

Sophie Beiers, Analyst
Sophie works closely with YouthTruth partners to ensure smooth survey administration and effective follow-up as a result of gathering and analyzing student perception data. With thoughtfulness and good humor, she coordinates with district and school leaders throughout the survey administration processes, analyzes student perception data to quickly produce interactive reports, and provides speedy technical assistance. Sophie is a graduate of Pitzer College, where she earned her B.A. in Psychology and Sociology, primarily focusing on infant development and education inequality. Sophie's interest in education was initially inspired by her time as a Jumpstart Americorps member where she worked toward closing the achievement gap in a local Los Angeles Headstart preschool. She took time to pursue her passion for travel when she set sail to three different continents on Semester at Sea, then was able to combine her interest in education and travel when she took time off to teach in rural Ghana.

Brian Postow, Software Architect
Brian designs, maintains, and improves the software tools used to analyze student perception data and produce online, interactive reports for clients. Prior to joining the team in October 2015, Brian worked in various roles in the software industry for eight years. Before that, he was an assistant professor at Union College in Schenectady, New York. Brian has a Ph.D. in Computer Science from the University of Maryland in College Park and a B.A. in Mathematics and Computer Science (with an accidental minor in Philosophy) from Oberlin College. Outside of work, Brian has been described as "the standard combination of computer scientist, fencer, juggler, and wearer of silly hats." He now enjoys rock climbing instead of fencing, but he still wears silly hats.

Hannah Bartlebaugh, Marketing and Community Engagement Fellow
Hannah works on developing a robust marketing plan to expand YouthTruth's communication efforts, manages YouthTruth's social media accounts, and assists with client services. A recent graduate of UC Santa Barbara with a double major in Political Science and Psychology, Hannah is serving as an AmeriCorps RISE Fellow from New Sector Alliance. Her senior thesis focused on the participation of parents of high-needs students in California's new district-level decision-making process under the Local Control Funding Formula (LCFF). As an undergraduate, she also helped teach community disaster preparedness classes and worked with a number of local education-focused nonprofits.

Josh Ho, Research Fellow

Josh Ho, Research Fellow, supports the YouthTruth team by developing assessment products, analyzing data, and supporting survey report generation and follow-up. Josh is serving as a 2015-2016 Americorps RISE Fellow with New Sector Alliance. Josh's interest in education is inspired by his previous tutoring work with groups ranging from long-term patients at a local children's hospital to anxious high school and college students. He is passionate about combining student voices and research expertise in order to accelerate positive outcomes. Josh is a graduate of UC Berkeley, where he earned a B.A. degree in Integrative Biology and Social Welfare, focusing on topics like public health, homelessness, and human trafficking. His honors thesis research explored the role of gut bacteria in protection against infection.