



Contents

1. Introduction.....	3
2. Sample.....	4
3. Data Collection Procedures.....	6
4. Data and Analytical Approach.....	7
5. Findings and Recommendations.....	11
5.1 Survey Items and Scales.....	11
5.1.1 Student survey.....	11
5.1.2 Instructional staff survey.....	24
5.1.3 Noninstructional staff survey.....	35
5.1.4 Parent survey.....	46
5.2. Survey Platform.....	51
5.2.1. Technical issues and recommendations.....	51
5.2.2 Administration issues and recommendations.....	55
6. Conclusion.....	58
References.....	59
Appendix.....	60

National Center for Education Statistics  
ED School Climate Surveys (EDSCLS)  
National Benchmark Study 2016

Appendix D  
EDSCLS Pilot Test 2015 Report

August 2015

## 1. Introduction

The ED School Climate Surveys (EDSCLS) are a suite of survey instruments being developed for schools, school districts, and states by the U.S. Department of Education's National Center for Education Statistics (NCES). Through the EDSCLS, schools nationwide will have access to survey instruments and a survey platform that will allow for the collection and reporting of school climate data across stakeholders at the local level. The surveys can be used to produce school-, district-, and state-level scores on various indicators of school climate from the perspectives of students, teachers and staff, principals, and parents and guardians. The survey platform is designed to be downloadable free of charge and provides user-friendly school climate reports. Educational entities can choose to administer any or all four surveys included in the platform. Upon completion data collections, the platform can produce reports showing aggregate group results.

This report summarizes the findings from the pilot test conducted to evaluate the EDSCLS instruments, develop school climate scales, and beta test the survey platform. The pilot test was also used to produce evidence-based recommendations for the final set of EDSCLS items to be included in the released EDSCLS platform and for the revisions to the EDSCLS User Guide that accompanies the platform.

The development of the EDSCLS survey instruments started in 2013 with a review of the existing school climate literature and survey items in the Position Paper on EDSCLS Content. Based on that paper, a Technical Review Panel (TRP) meeting was held in early 2014 to recommend items to be included in the EDSCLS. Next, building on the foundation of the Position Paper and the recommendations from the TRP, a Concept Design Paper containing the draft survey items was created. In the summer of 2014, cognitive lab testing, including cognitive interviews and usability testing, was conducted on the draft items and the survey platform.

Between February and early June 2015, 16 sites, containing 50 public schools, volunteered to participate in the pilot test of the EDSCLS instruments and platform. Participation in the pilot test involved installation of the EDSCLS platform by the school or district hosting it; the administration of one or more EDSCLS surveys at the school or district level through the platform; and the export and transfer of raw survey data files to the American Institutes for Research (AIR). Any public school or district with students in grades 5–12 was eligible to participate in the pilot test and host the EDSCLS platform on its own servers. Approximately half-way through the pilot test data collection, a cloud-based server option was also offered to host sites that experienced difficulty installing the platform or installing it quickly enough to complete the data collection by the end of May. As a result, eight sites hosted the EDSCLS on their local servers and eight hosted the EDSCLS on cloud servers rented from Amazon Web Services (AWS).

The pilot study was intended to achieve two goals:

- Collect sufficient data to enable analysis of the psychometric properties of the items, remove problematic or unnecessary items from the final list of items in the surveys, and develop scales on topics covered by the EDSCLS. To allow for the deletion of poorly performing items while retaining sufficient items for scale construction, the pilot test purposely included more items than were needed to create the school climate scales. The detailed item analysis results and recommendations are discussed in section 5 of this report.
- Conduct an operational beta test, under “live” conditions, of all the technical components of the survey platform, including installation, opening and closing data collections, generating and distributing log-in credentials, producing live submission status reports to track response rates in real time, and producing survey results reports at the conclusion of data collections by local education agencies or individual schools. The test also included an appraisal of the clarity and comprehensiveness of the EDSCLS User Guide, which contains technical guidance on setting up and administering the EDSCLS using the survey platform, administration guidance on recommended data collection practices, and sample materials that schools and districts could use to reduce the burden of conducting the EDSCLS (parental consent forms for parents to give schools permission to include their children in the EDSCLS, proctor scripts for giving students instructions before taking the EDSCLS, etc.). Beta test data were gathered via logs of the technical and administrative help provided during the data collection and through debriefing meetings conducted with every host site. See section 5 for a detailed breakdown of the issues encountered and recommended solutions.

## 2. Sample

A convenience sample driven by a purposive outreach effort was used with the goal of representing the range of characteristics that may affect schools’ ability to self-administer the EDSLCS surveys. AIR successfully recruited schools of varying grades, locales, ethnic/racial compositions, and levels of socioeconomic status (measured via the percentage of students eligible for free/reduced-price lunch through the National School Lunch Program) (see table 1).

Table 1. Number and percentage of schools in the EDSCLS pilot test sample, by various school characteristics

School characteristic	Number	Percentage
School level		
Primary school	14	28.57
Middle school	16	32.65
High school	16	32.65
Other school	3	6.12
Free/reduced-price lunch eligibility		
50 percent or more students eligible	38	77.55
Less than 50 percent students eligible	11	22.45
Locale		
City	26	53.06
Suburb	4	8.16
Town	13	26.53
Rural	6	12.24
Primary race/ethnicity at school		
White	19	38.78
Black	28	57.14
Hispanic or Latino	2	4.08

NOTE: Although 50 schools participated in the pilot study, 2 of these schools (Jackson Middle School and Jackson High School) are classified as 1 school (Jackson City School) in the CCD; thus, 49 schools are reported in the table.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), 2012–13.

For students, it was important for the survey to be completed in a typical class period while leaving time for other aspects of survey administration (e.g., settling into the computer lab, providing log-in instructions, etc.). Due to the large number of student survey items in the pilot test, a balanced incomplete block (BIB) design was used for the student respondent group; this allowed AIR to sample enough students to obtain precise results for each survey item while generally consuming a total of no more than an hour of each student’s time. Based on the three domain areas of the EDSCLS—Engagement, Safety, and Environment—three blocks were created, and each student only answered two of the three blocks. In this design, each survey block appeared twice in each of the two possible positions, and each block was paired once with every other block. Therefore, there were six versions of the student survey and they were assigned randomly to student usernames (table 2).

Table 2. Six versions of the EDSCLS student survey, based on the balanced incomplete block (BIB) design

Student survey version	Position 1 survey block	Position 2 survey block
1	Engagement	Safety
2	Safety	Environment
3	Environment	Engagement
4	Engagement	Environment
5	Safety	Engagement
6	Environment	Safety

### 3. Data Collection Procedures

#### Recruitment

Pilot test recruitment efforts began in January 2015. AIR and NCES coordinated with the U.S. Department of Education's Office of Safe and Healthy Students (OSHS) to recruit participants. OSHS reached out to its Project Prevent (P2) grantees and School Climate Transformation grantees. Two informational webinars were also hosted in February, and recordings were made available by OSHS through the National Center on Safe Supportive Learning Environments (NCSSE).

Once a school or district expressed interest in participating in the pilot test, AIR requested contact information for survey administrators at each site, distributed copies of the EDSCLS User Guide, and answered questions from district and school coordinators through a variety of media—including print materials, telephone conference calls, and virtual meetings—to ensure the fidelity of the survey administration.

To incentivize participation and assist in the implementation of the survey, host sites were offered the choice of one Dell Inspiron laptop or one Apple iPad tablet per participating school. EDSCLS support staff installed PDF copies of the User Guide on the desktop of each device and set the browser home page to the EDSCLS website (<http://safesupportivelearning.ed.gov/scls>) before shipping the devices to pilot sites. Based on the feedback received from the pilot sites, the incentive was especially effective in obtaining principals' buy-in to survey participation.

#### Data Collection

The EDSCLS pilot test data were collected through each of the 16 sites that hosted the EDSCLS platform.

For each hosting entity, the Information Technology (IT) staff employed by the entity installed and configured the survey platform on a local or cloud-based server. A survey administrator used the EDSCLS username generator to create lists of log-in credentials for each respondent group that was surveyed in each school. Respondents used those credentials to log in to their respective surveys. The data were collected and stored on the host server (either district-owned or cloud-rented) before being exported and sent to AIR. The survey administrator was able to view the survey submission reports and item response frequency reports for each participating school, and if administered at the district level, for the district as a whole. Data files delivered to AIR did not contain any directly identifying personally identifiable information (PII).

AIR provided an EDSCLS User Guide, consisting of a Technical Guide and an Administration Guide, to all education agencies that hosted the platform. As mentioned earlier, the Technical Guide provides step-by-step instructions for IT staff to download and install the survey platform and for survey administrators to operate the EDSCLS dashboard to create data collections, generate random usernames and disseminate them via e-mail, and produce survey reports. The Administration Guide provides information on best practices in survey administration, such as how to conduct a universe data collection, how to survey students, and how to boost response rates in general and for specific groups.

The User Guide also contained sample materials for survey administrators, such as an EDSCLS flyer to advertise the data collection, a proctor script for the student survey, and parental consent forms.

Leading up to and throughout the February–June 2015 pilot test period, AIR received and responded to inquiries about the study through a Help Desk, accessible via a toll-free telephone number (1-844-849-5252) and an EDSCLS e-mail address ([schoolclimate@air.org](mailto:schoolclimate@air.org)). EDSCLS support staff were assembled to share the bulk of the administrative and technical assistance responsibilities during the platform installation, survey administration, and data collection process at all participating sites. The Help Desk staff replied to all inquiries within one business day and recorded all inquiries, along with their resolutions. Primary support included troubleshooting the administration functions of the platform, checking in with site administrators regarding their data collection efforts, and providing instructions on how to read the survey status reports. AIR coordinated with Sanametrix, the subcontractor that programs the EDSCLS platform, to solve any technical platform issues that arose.

Detailed records of each administration issue were documented in an Excel spreadsheet log, including the nature of the issue, the assistance provided, and the staff member providing the assistance. All issues were also brought to NCES’s attention during update meetings.

After the survey administration and data collection had been completed, EDSCLS staff scheduled post-survey debriefings with administrators at each host site. These meetings were conducted to further discuss the issues that arose at each site during the course of the survey administration as well as to examine best practice recommendations with regard to the dissemination of survey materials, time and resource management during survey administration, and other practical improvements that would make for a more seamless effort in future iterations of the survey.

### **Data Transfer**

The EDSCLS pilot test host sites exported their data from the platform in the form of Comma Separated Values (CSV) files. They then securely transferred the data to AIR using a secure file transfer system.

The process involved AIR creating a digital destination folder for each EDSCLS site. AIR then sent each host site two e-mails: the first contained a temporary link to the site’s designated folder; the second contained temporary credentials for each site (which had to be changed upon the first log-in). Once a secure link was established, the site uploaded its data and AIR sent a confirmation e-mail verifying the data transfer was successful.

## **4. Data and Analytical Approach**

Schools and school systems participating in the pilot test were free to determine which surveys they would field. Of 50 participating schools, 46 fielded the student survey, 37 fielded the instructional staff survey, 30 fielded the noninstructional staff survey, and eight fielded the parent survey. The student survey was completed<sup>1</sup> by approximately 17,630 students in 43 schools<sup>2</sup>. About 990 teachers completed

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<sup>1</sup> A completed survey was defined as one with any valid responses received to any of the school climate questions.

<sup>2</sup> Student data were submitted by 3 more schools, but the data only included information from demographic items and did not include responses to the school climate items.

the instructional staff survey in 37 schools. Two hundred and thirty staff members from 29 schools provided information for the noninstructional staff survey<sup>3</sup>. The parent survey was completed by 240 parents in eight schools.

The survey completion rate<sup>4</sup> is calculated as the number of completed respondents divided by the number of usernames generated as shown in the data files. The student completion rate in each school ranged from 0 to 100 percent, with an average of 65.2 percent; the instructional staff completion rate in each school ranged from 1.4 to 100 percent, with an average of 51.4 percent; the noninstructional staff completion rate in each school ranged from 0 to 100 percent, with an average of 28.1 percent; and the parent completion rate in each school ranged from 0.5 to 6.5 percent, with an average of 3.6 percent.

Spanish-language versions of the survey items were available for both the student and parent surveys. In both surveys, 1.7 percent of the respondents responded to at least one question in Spanish (i.e., they provided valid responses to any of the school climate questions).<sup>5</sup> The respondent demographics by survey are shown in table 3.

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<sup>3</sup> One extra school did not have any noninstructional staff who provided valid responses to any of the school climate questions.

<sup>4</sup> Completion rates are not the same as response rates. The completion rates calculate the number of log-in credentials used to complete the survey in comparison to the number of log-in credentials generated. In contrast, response rates are determined by dividing the number of eligible responding cases by the number of all eligible cases. It is not clear how closely the number of usernames corresponds to survey eligibility.

<sup>5</sup> Respondents could toggle back and forth between languages as they completed the survey.



Table 3. Demographic characteristics of EDSCLS respondents, by survey

	Student		Instructional staff		Noninstructional staff		Parent	
	Count	%	Count	%	Count	%	Count	%
Gender								
Male	8,740	49.6	290	29.4	50	20.4	30	13.7
Female	8,860	50.4	700	70.6	180	79.6	210	86.3
Grade								
5	1,830	10.4	†	†	†	†	†	†
6	2,710	15.4	†	†	†	†	†	†
7	2,260	12.8	†	†	†	†	†	†
8	2,520	14.3	†	†	†	†	†	†
9	2,570	14.6	†	†	†	†	†	†
10	2,460	14.0	†	†	†	†	†	†
11	1,920	10.9	†	†	†	†	†	†
12	1,300	7.4	†	†	†	†	†	†
Not graded	40	0.2	†	†	†	†	†	†
Race/ethnicity								
White	6,520	37.3	870	88.8	140	60.3	110	46.9
Black/African- American	5,460	31.3	80	7.98	70	31.7	100	40.3
Hispanic	3,280	18.8	20	1.94	10	3.6	20	8.71
Asian American	380	2.2	0	0.2	0	0.9	—	—
American Indian or Alaska Native	100	0.6	—	—	0	0.9	0	0.41
Native Hawaiian or Pacific Islander	50	0.3	—	—	0	0.5	—	—
Two or more races	1,690	9.7	10	1.12	10	2.2	10	3.73
Special education								
Yes	†	†	520	52.5	110	50.4	†	†
No	†	†	470	47.5	110	49.6	†	†
Years working at school								
1-3	†	†	320	32.3	80	34.8	†	†
4-9	†	†	270	27.0	80	33.5	†	†
10-19	†	†	300	30.1	60	24.2	†	†
20 or more	†	†	110	10.6	20	7.5	†	†

— Not available.

† Not applicable.

NOTE: The number of respondents is rounded to the nearest ten. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

The EDSCLS instruments provide measures on 13 topics in three domains:

- Engagement: Cultural and Linguistic Competence, Relationships, and School Participation
- Safety: Emotional Safety, Physical Safety, Bullying/Cyberbullying, Substance Abuse, and Emergency Readiness/Management
- Environment: Physical Environment, Instructional Environment, Physical Health, Mental Health, and Discipline

All school climate items (all survey items except the demographic questions) were designed with a 4-category Likert-type response option set with two negative response options, two positive options, and

no middle/neutral category. The purpose of the analyses, described in section 5, was to evaluate all school climate items but not the demographic questions in the pilot study for their overall quality and psychometric properties and to evaluate the items for suitability for inclusion in the scales for each school climate topic. An analysis of the selected survey items was conducted to evaluate the reliability and validity of the final scales. The analyses consisted of two parts: item analysis to select items for each scale; and assessment of the reliability and validity of the recommended scales. The goal was to select items that produce high-quality data and create scales that are psychometrically reliable, valid, and generalizable. By design, the emergency readiness/management topic was not meant to be used for scaling purpose and the psychometric properties of the items in this topic were not evaluated.

The item analysis consisted of the following evaluations:

- item response rates to identify items with high item nonresponse rates (INR),
- response patterns to identify items with low response variation (i.e., where most of the responses fell into one response category),
- results from Confirmatory Factor Analyses to identify items with low factor loadings to the underlying construct,
- point-polyserial correlations to identify items with low values, and
- item fit statistics from a Rasch analysis to identify out-of-range values.

The results of the item analyses served as the basis of decisions regarding which items to retain and which to drop from the final surveys. They also provided the basis from which to develop the scales for each school climate topic.

For each item, the item nonresponse rate (omitted or not reached) was computed. The *omitted* rate is the percentage of respondents who did not provide an answer to the question when it was presented to them. The *not-reached* rate is the percentage of respondents who did not reach the question because they dropped out of the survey. If an item was missing responses for more than 10 percent of respondents, it was flagged. A high item nonresponse rate indicates that many respondents, for various reasons, did not respond to the item: they may have had difficulty providing the requested information (for instance, if the item was not clearly worded), they may have stopped taking the survey before reaching the item (if the survey was too long), or they may have been sensitive to the subject area of the question and therefore did not respond to it.

The percentage of valid responses in each response category was also calculated. If more than 90 percent of the responses fell into one category, the item was considered to have performed poorly in differentiating respondents and was flagged. Confirmatory factor analysis (CFA) was conducted for each domain, and items with the following characteristics were flagged: those with a factor loading<sup>6</sup> lower than a significant cut point of 0.5 to the underlying construct (Hair et al. 1998), those with a general point-polyserial correlation lower than 0.3 (Allen and Yen 1979), and those with out-of-range infit/outfit values (<0.7 or >1.3) (Bond and Fox 2001).

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<sup>6</sup> A hierarchical confirmatory factor analysis was conducted for each domain with its topics as subfactors.

The flagging criteria are shown in table 4. All items that were flagged were reviewed closely for potential removal from the final SCLS instruments.

Table 4. Flagging criteria used in the EDSCLS item analyses

Criteria	Flagging range
Item nonresponse rate (omitted or not reached)	>10 percent
More than 90 percent of responses in one category	>90 percent
Factor loading	<0.5
Point-polyserial	<0.3
Infit/outfit statistic	<0.7 or >1.3

Using the item analysis as well as feedback from the pilot schools, the EDSCLS team, consisting of NCES and AIR staff, reviewed all of the items that were flagged by the above criteria—as well as the remaining items in each topic—to determine the final set of survey items. These items had to:

- perform well in the pilot test (i.e., not have been flagged by more than one criteria);<sup>3sw</sup>
- contribute to the current discussions about school climate, provide actionable information for educators, and/or have been used in similar school climate surveys;
- have a level of language difficulty appropriate for the target respondents; and
- provide a good spread of item difficulty.<sup>7</sup>

The survey length overall, as measured by the total number of items, also had to be reasonable for the target respondents.

Once the final set of items was determined for each scale, a second set of analyses were performed. The final set of items were evaluated in terms of scale reliability as indicated by Cronbach’s alpha, construct validity using confirmatory factor analysis, item technical quality as evidenced by item fits using Rasch analysis, and generalizability validity as evidenced by differential item functioning using Rasch analysis. The final set of survey items will be included in the 2015 fall platform release and in the national benchmark study in spring 2016.

## 5. Findings and Recommendations

### 5.1 Survey Items and Scales

#### 5.1.1 Student survey

The EDSCLS 2015 pilot student survey consisted of 132 items, including 5 general demographic questions and 127 items measuring 13 topics in the 3 domains of Engagement (ENG), Safety (SAF), and Environment (ENV). All 127 topical items used a 4-point Likert response option scale. The breakdown of

<sup>7</sup> Item difficulty refers to how easy or difficult it is for respondents to provide a positive response (e.g., “I feel socially accepted” is an easier item than “I feel loved and wanted”). If an item has negative valence, it refers to how easy or difficult it is for respondents to provide a negative response (e.g., “Students at this school think it is okay to try drugs” is an easier item than “Students at this school think it is okay to get drunk”).

the survey, by the number of items in each topic, is shown in table 5. The exact wording of each item, along with flags and the final decision about whether to retain it in the survey, can be found in table 9.

Table 5. EDSCLS 2015 pilot student survey, by domain, topic, and item

Domain	Topic	Item
Engagement (ENG)	Cultural and linguistic competence (CLC)	8 items with prefix SENGCLC
	Relationships (REL)	17 items with prefix SENGREL
	School participation (PAR)	6 items with prefix SENGPAR
Safety (SAF)	Emotional safety (EMO)	10 items with prefix SSAFEMO
	Physical safety (PSAF)	12 items with prefix SSAFPSAF
	Bullying/cyberbullying (BUL)	13 items with prefix SSAFBUL
	Substance abuse (SUB)	12 items with prefix SSAFSUB
	Emergency readiness/management (ERM)	3 items with prefix SSAFERM
Environment (ENV)	Physical environment (PENV)	9 items with prefix SENVPENV
	Instructional environment (INS)	10 items with prefix SENVINS
	Physical health (PHEA)	7 items with prefix SENVPHEA
	Mental health (MEN)	8 items with prefix SENVMEN
	Discipline (DIS)	12 items with prefix SENVDIS

### *Student item analysis*

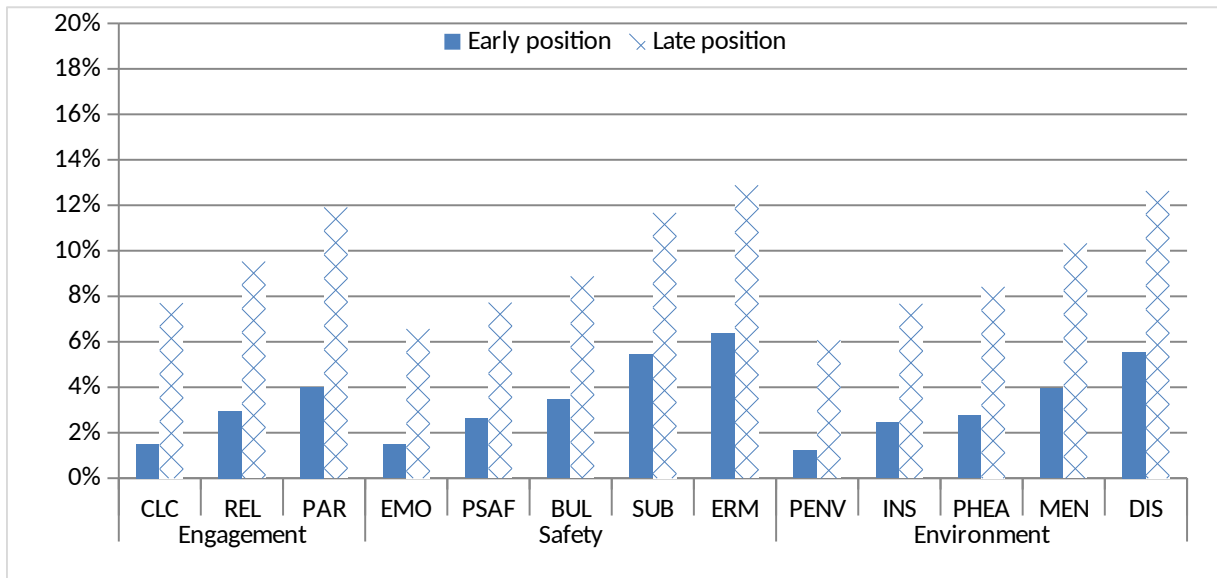
For each item, the item nonresponse rate (omitted or not reached) and the percentage of responses in each category, factor loading to the underlying construct, point-polyserial correlation with the total raw score, and infit/outfit values were checked using the criteria in table 4.

### **Item missing rate**

The item nonresponse rate for students ranged from 1.9 to 6.8 percent, with an average of 4.2 percent, and was below 7 percent for all 127 items. No items were flagged due to high item nonresponse rates. Nonresponse rates by item can be found in appendix table A-1.

Because the order in which the domains were presented to the respondents was randomized—but the order in which the topics in each domain were presented was not—the pattern of item missing rates was consistent across the three domains (see figure 2). That is, items in later topics had, on average, a higher nonresponse rate than items in earlier topics in the same domain. The analysis shows that although item nonresponse rates were low overall, respondents were less likely to provide information if an item was presented later in the survey.

Figure 2. Average item nonresponse rate by position and topic in the EDSCLS 2015 pilot student survey



SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Response variance**

Among the 127 school climate items in the student survey, none had 90 percent or more of the valid responses clustered in one response option. Therefore, no items were flagged due to low response variance. The percentage of responses ranged from 2.7 to 41.1 percent for the most negative option, from 6.0 to 43.2 percent for the somewhat negative option, from 16.2 to 57.8 percent for the somewhat positive option, and from 5.0 to 60.4 percent for the most positive option. The percentage of responses in each category, by item, can be found in appendix table B-1.

**Factor loading**

A hierarchical factor model was fit to the items in each domain, with the topics in the domain as first-order factors. Twenty items were flagged because they had a first-order factor loading below 0.5 (see table 6). In addition, the physical health subfactor has a factor loading of 0.489 to the overall factor, indicating that the items in the physical health topic may not measure the same construct and thus should be excluded from the environment factor. The complete factor loadings can be found in appendix table C-1.

Table 6. Items flagged due to low factor loading in the EDSCLS 2015 pilot student survey

Variable name	Description	Factor loading
SENGCLC5	There are examples of different racial, ethnic, or cultural backgrounds in the class lessons at this school.	0.477
SENGCLC6	Adults working at this school have disrespected students because of their race, ethnicity, or cultural background. <sup>1</sup>	0.423
SENGPAR44	I regularly attend school-sponsored events, such as school dances, sporting events, student performances, or other school activities.	0.493
SENGPAR45	I regularly participate in extra-curricular activities offered through this school, such as, school clubs or organizations, musical groups, sports teams, student government, or any other extra-curricular activities.	0.490
SSAFEMO51	Students at this school are sensitive to the feelings of other students.	0.453
SSAFPSAF61	I worry about crime and violence at this school. <sup>1</sup>	0.497
SSAFPSAF63	I sometimes stay home because I don't feel safe at this school. <sup>1</sup>	0.487
SSAFBUL78	Adults working at this school make it clear to students that bullying is not tolerated.	0.444
SSAFBUL79	Students tell adults working at this school when other students are being bullied.	0.443
SENVENV104	Overcrowding is a problem at this school. <sup>1</sup>	0.248
SENVINS108	Other students often disrupt class. <sup>1</sup>	0.195
SENVINS109	I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. <sup>1</sup>	0.125
SENVPHEA125	How often do you eat breakfast on school days?	0.404
SENVPHEA126	How often do you eat candy at school? <sup>1</sup>	0.286
SENVPHEA127	How often do you drink soda at school? <sup>1</sup>	0.336
SENVPHEA128	How often do you go to gym class or participate in other physical activity during the school day (e.g., running, playing sports)?	0.372
SENVPHEA129	How often do you stay after school to participate in sports or other physical activity?	0.170
SENVMEN135	Students at this school give up when they can't solve a problem easily. <sup>1</sup>	0.256
SENVMEN136	Students at this school think it's ok to fight if someone insults them. <sup>1</sup>	0.367
SENVDIS147B	School rules for behavior are strict.	0.434

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Point-polyserial correlations

The point-polyserial correlation is the correlation between the responses to an individual item and the total raw score in the domain. Higher values correspond to higher correlations with the underlying construct.

Point-polyserial correlations were computed for the items in each topic, except Emergency Readiness/Management, and ranged from 0.082 to 0.684, with an average of 0.481. A total of 11 student items were flagged because their point-polyserial correlations were lower than 0.3, as shown in see table 7. Point-polyserial correlations by item can be found in appendix table D-1.

Table 7. Items flagged by low point-polyserial correlations in the EDSCLS 2015 pilot student survey

Variable name	Description	Point-polyserial
SENGCLC6	Adults working at this school have disrespected students because of their race, ethnicity, or cultural background. <sup>1</sup>	0.296
SSAFEMO51	Students at this school are sensitive to the feelings of other students.	0.253
SENVPENV10 4	Overcrowding is a problem at this school. <sup>1</sup>	0.192
SENVINS108	Other students often disrupt class. <sup>1</sup>	0.166
SENVINS109	I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. <sup>1</sup>	0.118
SENVPHEA125	How often do you eat breakfast on school days?	0.201
SENVPHEA126	How often do you eat candy at school? <sup>1</sup>	0.141
SENVPHEA127	How often do you drink soda at school? <sup>1</sup>	0.164
SENVPHEA128	How often do you go to gym class or participate in other physical activity during the school day (e.g., running, playing sports)?	0.184
SENVPHEA129	How often do you stay after school to participate in sports or other physical activity?	0.082
SENVMEN135	Students at this school give up when they can't solve a problem easily. <sup>1</sup>	0.237

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Infit/outfit statistics

Rasch analyses by domain were conducted to examine item fit statistics. The item fit statistic emphasizes the extent to which an item's performance matches the model expectations. A value of 1.2, for example, indicates 20 percent more variation in the observed data than the model predicted. There are two item fit statistics that are routinely reported—the infit statistic and the outfit statistic. The infit statistic assigns more weight to the performance of persons whose ability is close to the item's difficulty because these individuals should provide more precise information for the item's performance. The outfit statistic is not weighted. As shown in table 8, a total of 22 items were flagged because their infit or outfit statistics are out of the range of 0.7 to 1.3. Infit and outfit statistics for all items can be found in appendix table D-1.

Table 8. Items flagged by out-of-range infit or outfit statistics in the EDSCLS 2015 pilot student survey

Variable name	Description	Infit	Outfit
SENGCLC1	All students are treated the same, regardless of whether their parents are rich or poor.	1.156	1.306
SENGCLC6	Adults working at this school have disrespected students because of their race, ethnicity, or cultural background. <sup>1</sup>	1.413	2.727
SENGPAR44	I regularly attend school-sponsored events, such as school dances, sporting events, student performances, or other school activities.	1.348	1.472
SENGPAR45	I regularly participate in extra-curricular activities offered through this school, such as, school clubs or organizations, musical groups, sports teams, student government, or any other extra-curricular activities.	1.345	1.516
SSAFEMO51	Students at this school are sensitive to the feelings of other students.	1.319	1.383
SSAFPSAF61	I worry about crime and violence at this school. <sup>1</sup>	1.214	1.368
SSAFBUL78	Adults working at this school make it clear to students that bullying is not tolerated.	1.209	1.406
SSAFSUB85B	At this school, how much of a problem is student use of electronic cigarettes? <sup>1</sup>	1.277	1.692
SSAFSUB85	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>1</sup>	1.208	1.602
SSAFSUB87	Students use/try tobacco products while at school or school-sponsored events. <sup>1</sup>	1.125	1.304
SENVENV104	Overcrowding is a problem at this school. <sup>1</sup>	1.292	1.419
SENVINS108	Other students often disrupt class. <sup>1</sup>	1.292	1.501
SENVINS109	I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. <sup>1</sup>	1.413	1.601
SENVPHEA123	How often do you eat fruit at school?	1.223	1.320
SENVPHEA124	How often do you eat vegetables at school?	1.231	1.390
SENVPHEA125	How often do you eat breakfast on school days?	1.468	1.934
SENVPHEA126	How often do you eat candy at school? <sup>1</sup>	1.432	1.638
SENVPHEA127	How often do you drink soda at school? <sup>1</sup>	1.440	1.790
SENVPHEA128	How often do you go to gym class or participate in other physical activity during the school day (e.g., running, playing sports)?	1.484	1.950
SENVPHEA129	How often do you stay after school to participate in sports or other physical activity?	1.687	2.514
SENVMEN135	Students at this school give up when they can't solve a problem easily. <sup>1</sup>	1.226	1.333
SENVMEN136	Students at this school think it's ok to fight if someone insults them. <sup>1</sup>	1.154	1.359

<sup>1</sup>These items are negatively valenced and were reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Summary

Based on the results of the above analyses and feedback from the pilot schools, the EDSCLS team reviewed the items using the criteria discussed in section 4 and arrived at final decisions about the student survey items, shown in table 9. Table 9 also shows flags explaining why the items did not perform well and how the item will ultimately be used. As a result of these decisions, the physical health topic was dropped from the student survey because the items in it did not measure the concept as



expected and did not perform well in general (e.g., low correlations among the items). By contrast, there will be a physical health scale for the instructional and noninstructional staff surveys (results for those surveys are shown later in this section).

Table 9. Flags and final decisions for school climate items in the EDSCLS 2015 pilot student survey

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
SENGCLC1	All students are treated the same, regardless of whether their parents are rich or poor.	IO	y-CLC
SENGCLC2	Boys and girls are treated equally well.		y-CLC
SENGCLC3	This school provides instructional materials (e.g., textbooks, handouts) that reflect my cultural background, ethnicity, and identity.		y-CLC
SENGCLC4	Adults working at this school treat all students respectfully.		y-CLC
SENGCLC5	There are examples of different racial, ethnic, or cultural backgrounds in the class lessons at this school.	FL	n
SENGCLC6	Adults working at this school have disrespected students because of their race, ethnicity, or cultural background. <sup>3</sup>	FL/PP/ IO	n
SENGCLC7	People of different cultural backgrounds, races, or ethnicities get along well at this school.		y-CLC
SENGCLC8	Students from different cultural backgrounds get along well at this school.		n
SENGREL9	Teachers understand my problems.		y-REL
SENGREL10	Adults working at this school seem to take a real interest in my future.		n
SENGREL11	Teachers are available when I need to talk with them.		y-REL
SENGREL12	It is easy to talk with teachers at this school.		y-REL
SENGREL13	Students get along well with teachers.		n
SENGREL14	My teachers care about me.		y-REL
SENGREL15	At this school, there is a teacher or some other adult who notices when I am not there.		n
SENGREL153	At this school, there is a teacher or some other adult who students can go to if they need help because of sexual assault or dating violence.		y-REL
SENGREL16	Teachers at this school help us children with our problems.		n
SENGREL17	My teachers make me feel good about myself.		y-REL
SENGREL18	I feel like I belong.		y
SENGREL19	Students help one another.		n
SENGREL20	Students respect one another.		y-REL
SENGREL21	Students like one another.		y-REL
SENGREL22	Students trust one another.		n
SENGREL26	When there are events at this school, lots of families come.		n
SENGREL29	If I am absent, there is a teacher or some other adult at school that will notice my absence.		y-REL
SENGPAR43	At this school, the principal asks students what their ideas are.		n
SENGPAR44	I regularly attend school-sponsored events, such as school dances, sporting events, student performances, or other school activities.	FL/IO	y-PAR

Table 9. Flags and final decisions for school climate items in the EDSCLS 2015 pilot student survey - continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
SENGPAR45	I regularly participate in extra-curricular activities offered through this school, such as, school clubs or organizations, musical groups, sports teams, student government, or any other extra-curricular activities.	FL/IO	y-PAR
SENGPAR46	At this school, students have lots of chances to help decide things like class activities and rules.		y-PAR
SENGPAR47	There are lots of chances for students at this school to get involved in sports, clubs, and other school activities outside of class.		y-PAR
SENGPAR48	I have lots of chances to be part of class discussions or activities.		y-PAR
SSAFEMO49	Students at this school get along well with each other.		y-EMO
SSAFEMO50	Students at this school can tell their teachers if they feel confused about something in class.		n
SSAFEMO51	Students at this school are sensitive to the feelings of other students.	FL/PP/ IO	n
SSAFEMO52	At this school, students talk about the importance of understanding their own feelings and the feelings of others.		y-EMO
SSAFEMO53	At this school, students work on listening to others to understand what they are trying to say.		y-EMO
SSAFEMO54	I am happy to be at this school.		y-EMO
SSAFEMO55	I feel close to people at this school.		n
SSAFEMO56	I feel like I am part of this school.		y-EMO
SSAFEMO57	I feel socially accepted.		y-EMO
SSAFEMO58	I feel loved and wanted.		n
SSAFPSAF59	I feel safe at this school.		y
SSAFPSAF60	I feel safe going to and from this school.		y-PSAF
SSAFPSAF61	I worry about crime and violence at this school. <sup>3</sup>	FL/IO	n
SSAFPSAF62	Students at this school are often threatened. <sup>3</sup>		n
SSAFPSAF63	I sometimes stay home because I don't feel safe at this school. <sup>3</sup>		y-PSAF
SSAFPSAF65	Students at this school carry guns or knives to school. <sup>3</sup>		y-PSAF
SSAFPSAF66	Students at this school belong to gangs. <sup>3</sup>		n
SSAFPSAF67	Students at this school threaten to hurt other students. <sup>3</sup>		y-PSAF
SSAFPSAF68	Students at this school steal money, electronics, or other valuable things while at school. <sup>3</sup>		y-PSAF
SSAFPSAF69	Students at this school damage or destroy other students' property. <sup>3</sup>		y-PSAF
SSAFPSAF70	Students at this school damage or destroy school property. <sup>3</sup>		n
SSAFPSAF71	Students at this school fight a lot. <sup>3</sup>		y-PSAF
SSAFBUL72	Students at this school are often teased or picked on. <sup>3</sup>		n
SSAFBUL74	Students at this school are teased or picked on about their race or ethnicity. <sup>3</sup>		y-BUL
SSAFBUL75	Students at this school are teased or picked on about their cultural background or religion. <sup>3</sup>		y-BUL
SSAFBUL76	Students at this school are teased or picked on about their physical or mental disability. <sup>3</sup>		y-BUL

Table 9. Flags and final decisions for school climate items in the EDSCLS 2015 pilot student survey - continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
SSAFBUL77	Students at this school are teased or picked on about their real or perceived sexual behavior. <sup>3</sup>		n
SSAFBUL77B	Students at this school are teased or picked on about their real or perceived sexual orientation. <sup>3</sup>		y-BUL
SSAFBUL81	Students at this school say mean things to other students when they think the other students deserve it. <sup>3</sup>		n
SSAFBUL73	Students at this school are often bullied. <sup>3</sup>		y-BUL
SSAFBUL78	Adults working at this school make it clear to students that bullying is not tolerated.	FL/IO	n
SSAFBUL79	Students tell adults working at this school when other students are being bullied.	FL	n
SSAFBUL80	Students at this school try to stop bullying.		y
SSAFBUL82	Students at this school are often cyber bullied (e.g., receiving a threatening or hurtful message from another student in an email, on a website, on a cell phone, or in instant messaging). <sup>3</sup>		n
SSAFBUL83	Students often spread mean rumors or lies about others at this school on the internet (i.e., Facebook™, email, and instant message). <sup>3</sup>		y-BUL
SSAFSUB84	At this school, how much of a problem is student drug use?		n
SSAFSUB85B	At this school, how much of a problem is student use of electronic cigarettes? <sup>3</sup>	IO	n
SSAFSUB85	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>3</sup>	IO	n
SSAFSUB86	At this school, how much of a problem is student alcohol use? <sup>3</sup>		n
SSAFSUB87	Students use/try tobacco products while at school or school-sponsored events. <sup>3</sup>	IO	n
SSAFSUB88	Students use/try alcohol or drugs while at school or school-sponsored events. <sup>3</sup>		y-SUB
SSAFSUB89	Students buy or sell drugs, alcohol, or tobacco products while at school or school-sponsored events. <sup>3</sup>		n
SSAFSUB90	Students are sometimes distracted in class because they are drunk or high. <sup>3</sup>		n
SSAFSUB91	It is easy for students to use/try alcohol or drugs at school or school-sponsored events without getting caught. <sup>3</sup>		y-SUB
SSAFSUB92	Students at this school think it is okay to smoke one or more packs of cigarettes a day. <sup>3</sup>		y-SUB
SSAFSUB93	Students at this school think it is okay to get drunk. <sup>3</sup>		y-SUB
SSAFSUB94	Students at this school think it is okay to try drugs. <sup>3</sup>		y-SUB
SSAFERM96	This school has told students what to do if there is an emergency, natural disaster (tornado, flood) or a dangerous situation (e.g., violent person on campus) during the school day.		n
SSAFERM97	Students know what to do if there is an emergency, natural disaster (tornado, flood) or a dangerous situation (e.g., violent person on campus) during the school day.		y

Table 9. Flags and final decisions for school climate items in the EDSCLS 2015 pilot student survey -

continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
SSAFERM98	If students hear about a threat to school or student safety, they would report it to someone in authority.		y
SENVPENV99	The school buildings are pleasant and well maintained.		n
SENVPENV100	The bathrooms in this school are clean.		y-PENV
SENVPENV101	This school is clean and well-maintained.		n
SENVPENV102	The temperature in this school is comfortable all year round.		y-PENV
SENVPENV103	This school looks nice and pleasant.		n
SENVPENV104	Overcrowding is a problem at this school. <sup>3</sup>	FL/PP/ IO	n
SENVPENV105	The school grounds are kept clean.		y-PENV
SENVPENV106	I think that students are proud of how this school looks on the outside.		y-PENV
SENVPENV107	Broken things at this school get fixed quickly.		y-PENV
SENVINS108	Other students often disrupt class. <sup>3</sup>	FL/PP/ IO	n
SENVINS109	I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. <sup>3</sup>	FL/PP/ IO	n
SENVINS111	My teachers praise me when I work hard in school.		y-INS
SENVINS113	My teachers give me individual attention when I need it.		y-INS
SENVINS114	My teachers often connect what I am learning to life outside the classroom.		y-INS
SENVINS115	The things I'm learning in school are important to me.		y-INS
SENVINS117	My teachers are willing to give extra help on schoolwork if I need it.		n
SENVINS119	I'm really learning a lot in my classes.		n
SENVINS121	My teachers expect me to do my best all the time.		y-INS
SENVINS122	The programs and resources at this school are adequate to support students with special needs or disabilities.		n
SENVPHEA123	How often do you eat fruit at school?	IO	n
SENVPHEA124	How often do you eat vegetables at school?	IO	n
SENVPHEA125	How often do you eat breakfast on school days?	FL/PP/ IO	n
SENVPHEA126	How often do you eat candy at school? <sup>3</sup>	FL/PP/ IO	n
SENVPHEA127	How often do you drink soda at school? <sup>3</sup>	FL/PP/ IO	n
SENVPHEA128	How often do you go to gym class or participate in other physical activity during the school day (e.g., running, playing sports)?	FL/PP/ IO	n
SENVPHEA129	How often do you stay after school to participate in sports or other physical activity?	FL/PP/ IO	n
SENVMEN130	My teachers really care about me.		y-MEN
SENVMEN131	Adults working at this school are usually willing to make the time to give students extra help.		n
SENVMEN132	I can talk to my teachers about problems I am having in class.		y-MEN

SENVMEN133	I can talk to a teacher or other adult at this school about something that is bothering me.	y-MEN
SENVMEN134	Students at this school stop and think before doing anything when they get angry.	y-MEN

Table 9. Flags and final decisions for school climate items in the EDSCLS 2015 pilot student survey - continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
SENVMEN135	Students at this school give up when they can't solve a problem easily. <sup>3</sup>	FL/PP/ IO	n
SENVMEN136	Students at this school think it's ok to fight if someone insults them. <sup>3</sup>	FL/IO	n
SENVMEN137	Students at this school try to work out their disagreements with other students by talking to them.		y-MEN
SENVDIS138	Classroom rules are applied equally.		n
SENVDIS139	Problems at this school are solved by students and staff.		n
SENVDIS140	Students get in trouble if they do not follow school rules.		n
SENVDIS141	School rules are enforced consistently and fairly.		n
SENVDIS142	My teachers make it clear to me when I have misbehaved in class.		y-DIS
SENVDIS143	Adults working at this school reward students for positive behavior.		y-DIS
SENVDIS144	Adults working at this school encourage students to think about how their actions affect others.		n
SENVDIS145	Adults working at this school assign consequences that help students learn from their behavior.		n
SENVDIS146	Adults working at this school help students develop strategies to understand and control their feelings and actions.		y-DIS
SENVDIS147	School rules are applied equally to all students.		y-DIS
SENVDIS147B	School rules for behavior are strict.	FL	n
SENVDIS147C	Discipline is fair.		y-DIS

<sup>1</sup> The Flag column notations mean the following - FL: Flagged due to low factor loading; PP: Flagged due to low point-polyserial correlation; IO: Flagged due to out-of-range infit/outfit statistics.

<sup>2</sup> The Decision column notations mean the following - n: Item has been dropped; y: Item will be included as a standalone item; y-XXX: Item will be included in the XXX scale (e.g., y-CLC means the item will be included in the cultural and linguistic competence scale). The acronyms for the scales are cultural and linguistic competence (CLC), relationships (REL), school participation (PAR), emotional safety (EMO), physical safety (PSAF), bullying/cyberbullying (BUL), substance abuse (SUB), physical environment (PENV), instructional environment (INS), mental health (MEN), and discipline (DIS).

<sup>3</sup> Item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

After items were removed, 68 school climate items (63 scale items plus five stand-alone items) from the student survey remained. In the next section, the final set of 63 scale items is evaluated for scale reliability, as indicated by Cronbach's alpha, construct validity using confirmatory factor analysis, item fit, and differential item functioning by Rasch analysis.

## Student scale reliability and validity

### Cronbach's alpha

Cronbach's alpha measures the internal consistency of a scale. A high alpha value indicates good scale reliability. As shown in table 10, based on Kline's (1993) 0.7 standard, the alphas for all topics met the standard for this measure.

Table 10. Cronbach's alpha by domain and topic in the EDSCLS 2015 pilot student survey

Domain/topic	Alpha	Number of items
<i>Engagement (students in grades 9–12)</i>	0.896	19
<i>Engagement (students in grades 5–8)</i> <sup>1</sup>	0.890	18
Cultural and linguistic competence	0.720	5
Relationships (students in grades 9–12)	0.868	9
Relationships (students in grades 5–8) <sup>1</sup>	0.856	8
School participation	0.707	5
<i>Safety (students in grades 9–12)</i>	0.914	24
<i>Safety (students in grades 5–8)</i> <sup>1</sup>	0.913	23
Emotional safety	0.820	7
Physical safety	0.820	7
Bullying/cyberbullying (students in grades 9–12)	0.857	6
Bullying/cyberbullying (students in grades 5–8) <sup>1</sup>	0.825	5
Substance abuse	0.878	5
<i>Environment</i>	0.902	20
Physical environment	0.738	5
Instructional environment	0.748	5
Mental health	0.749	5
Discipline	0.788	5

<sup>1</sup> One of the items in the domain or topic does not apply to students in grades 5–8. However, all the items in the same domain were calibrated together so that the estimated measures for students in grades 5–8 and grades 9–12 will be comparable.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Confirmatory factor analysis

Using the final set of items, a hierarchical one-factor model with multiple first-order factors was fit for each of the three domains. For the engagement domain, a second random half of data was used in the confirmatory factor analysis because the first random half was used for exploratory factor analysis; the whole set of data was used for the safety and environment domains. The weighted least squares means and variances adjusted (WLSMV) estimator was used because this method is appropriate for items with ordered categories (Flora and Curran 2004). The factor loadings are all greater than 0.5 (see table E-1).

Hu and Bentler (1999) suggest that excellent fit for the comparative fit index (CFI) and the Tucker-Lewis index (TLI) should be greater than 0.95, and excellent fit for the root mean square error of approximation (RMSEA) should be below 0.06. However, these standards are too conservative (Marsh, Hau, and Wen 2004). For this pilot test, the following standards were used: >0.90 for CFI and TLI (Bentler 1990) and <0.10 for RMSEA (Browne and Cudeck 1993). The chi-square statistics tend to be less informative indicators of fit with large sample sizes (Jöreskog 1969) and are not used here. As shown in

table 11, all three indices (CFI, TLI, and RMSEA) met the chosen standards for the safety and environment domains. The three indices did not meet the chosen standards for the environment domain, but the close values suggested that the data fit the predetermined model reasonably well.

Table 11. Model fit statistics by domain in the EDSCS 2015 pilot student survey

Domain	N <sup>1</sup>	RMSEA	CFI	TLI
Engagement	11,439	0.103	0.870	0.886
Safety	11,494	0.088	0.911	0.920
Environment	11,509	0.078	0.919	0.929

<sup>1</sup> Because of the balanced incomplete block (BIB) design, items in each domain were only administered to about two thirds of the respondents.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

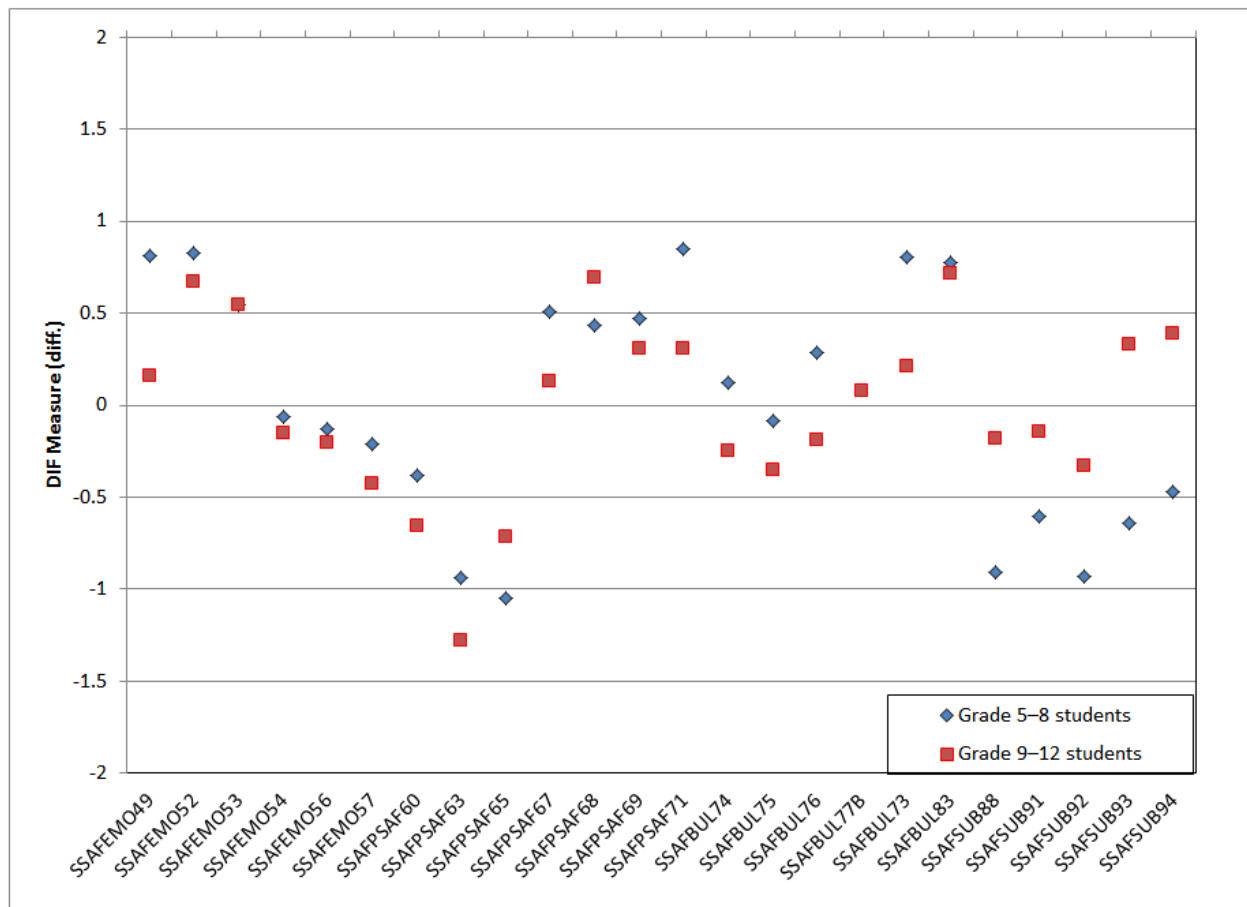
### Item fits

The infit/outfit statistics were in the range of 0.7 to 1.3, except for SENGPAR44, SENGPAR45, SSAFEMO52, and SENVMEN134, whose item fit statistics were outside this range. However, they did not degrade the measurement because their values were well below 2.0. Infit and outfit statistics for all scale items after the original student item set was reduced can be found in appendix table F-1.

### Differential item functioning

The survey items did not seem to function differently across gender, race (White vs. non-White), and domain representation order, meaning that differences in the measures between groups were generally less than 0.64. Item measures for each of the groups can be found in appendix table G-1. The substance abuse items seemed to function differently across school level (see figure 2), but this was expected because grade 9–12 students have been shown by other data sources to attend schools with more substance abuse problems than students in grades 5–8 (Miech et al. 2015).

Figure 2. Plot of differential item functioning (DIF) measures for students in grades 5–8 and grades 9–12



SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### 5.1.2 Instructional staff survey

The EDSCLS 2015 pilot instructional staff survey consisted of 116 items, including 5 general demographic questions and 111 items measuring 13 topics in 3 domains: engagement (ENG), safety (SAF), and environment (ENV). All 111 topical items used a 4-point Likert-type response option scale and they were administered to all respondents. The breakdown of the survey, by the number of items in each topic, is shown in table 12. The exact wording of each item, along with flags and the final decision about whether to retain it in the survey, can be found in table 17.



Table 12. EDSCLS 2015 pilot instructional staff survey by domain, topic, and item

Domain	Topic	Item
Engagement (ENG)	Cultural and linguistic competence (CLC)	8 items with prefix IENGCLC
	Relationships (REL)	7 items with prefix IENGREL
	School participation (PAR)	10 items with prefix IENGP
Safety (SAF)	Emotional safety (EMO)	10 items with prefix ISAFEMO
	Physical safety (PSAF)	9 items with prefix ISAFPSAF
	Bullying/cyberbullying (BUL)	12 items with prefix ISAFBUL
	Substance abuse (SUB)	10 items with prefix ISAFSUB
	Emergency readiness/management (ERM)	4 items with prefix ISAFERM
Environment (ENV)	Physical environment (PENV)	8 items with prefix IENVPENV
	Instructional environment (INS)	10 items with prefix IENVINS
	Physical health (PHEA)	6 items with prefix IENVPHEA
	Mental health (MEN)	7 items with prefix IENVMEN
	Discipline (DIS)	10 items with prefix IENVDIS

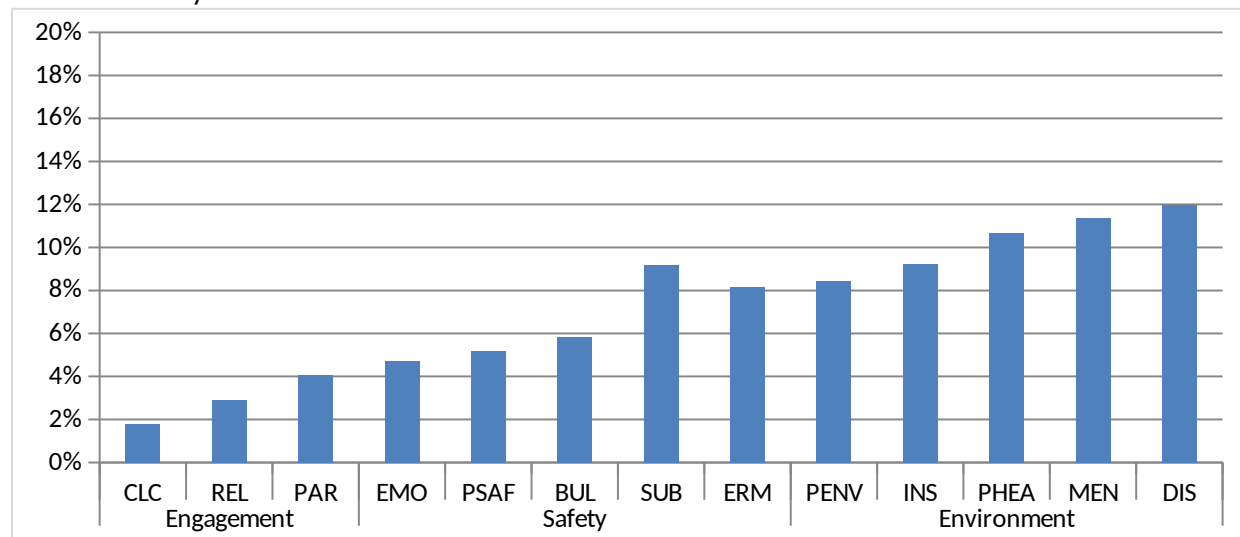
**Instructional staff item analysis**

Similar to the student survey, for each item, the item nonresponse rate (omitted or not reached) and the percentage of responses in each category, factor loading to the underlying construct, point-polyserial correlation with the total raw score, and infit/outfit values, were checked using the criteria in table 4.

**Item missing rate**

The item nonresponse rate ranged from 0.4 to 13.0 percent, with an average of 7.1 percent. Items in later topics had, on average, a higher nonresponse rate than items in earlier topics (see figure 3). However, items in the substance abuse topic had a higher average nonresponse rate than items in some later topics. The nonresponse rate for each item can be found in appendix table A-2.

Figure 3. Average item nonresponse rate by domain and topic in the EDSCLS 2015 pilot instructional staff survey



SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

Twenty-five items about substance abuse were flagged because of high item nonresponse rates (see table 13). However, most of the flagged items (21 out of 25) were presented later in the survey.

Table 13. Items flagged due to high item nonresponse rates in the EDSCLS 2015 pilot instructional staff survey

Variable name	Description	INR
ISAFSUB88	This school provides effective confidential support and referral services for students needing help because of substance abuse (e.g., a Student Assistance Program).	10.5%
ISAFSUB89	At this school, first-time violations of alcohol or other drug policies are punished by at least an out-of-school suspension.	13.0%
ISAFSUB90	This school has programs, resources, and/or policies to prevent substance abuse.	11.1%
ISAFSUB91	This school has programs that address substance use among students. This school provides the materials, resources, and training necessary for me to	11.3%
IENVPHEA119	support students' physical health and nutrition.	10.5%
IENVPHEA120	This school places a priority on making healthy food choices.	10.8%
IENVPHEA121	This school places a priority on students' health needs.	11.2%
IENVPHEA122	This school places a priority on students' physical activity.	11.0%
IENVPHEA138	This school provides quality physical health and nutrition instruction.	11.0%
IENVMEN124	Staff at this school help students develop strategies to understand and control their feelings and behavior. This school provides the materials, resources, and training necessary for me to	10.3%
IENVMEN125	support students' social or emotional needs.	11.7%
IENVMEN126	This school places a priority on addressing students' mental health needs.	11.7%
IENVMEN127	This school places a priority on social and emotional development.	11.8%
IENVMEN128	This school places a priority on teaching students strategies to manage their stress levels.	12.0%
IENVMEN137	This school places a priority on helping students with their social, emotional, and behavioral problems.	12.2%
IENVDIS129	Staff at this school are clearly informed about school policies and procedures.	11.8%
IENVDIS130	Staff at this school recognize students for positive behavior.	10.7%
IENVDIS131	Staff at this school encourage students to think about how their actions affect others.	11.5%
IENVDIS132	Staff at this school assign consequences that help students learn from their behavior. Staff at this school help students develop strategies to understand and control	11.7%
IENVDIS133	their feelings and actions.	12.8%
IENVDIS134	School rules are applied equally to all students.	11.7%
IENVDIS134B	School rules for behavior are strict.	12.6%
IENVDIS134C	Discipline is fair.	12.7%
IENVDIS135	This school effectively handles student discipline and behavior problems.	12.4%
IENVDIS136	Staff at this school work together to ensure an orderly environment.	12.2%

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Response variance

Among the 111 school climate items in the instructional staff survey, none had 90 percent or more of the valid responses clustered in one response option. Therefore, no items were flagged due to low response variance. The percentage of responses ranged from 0.4 to 16.3 percent for the most negative option, from 2.4 to 45.5 percent for the somewhat negative option, from 18.9 to 71.3 percent for the somewhat positive option, and from 6.2 to 72.7 percent for the most positive option. The percentage of responses in each category, by item, can be found in appendix table B-2.

### Factor loadings

A hierarchical one-factor model was fit to the items in each domain, with the topics in the domain as first-order factors. Two items were flagged because they had a first-order factor loading less than 0.5 (see table 14). The complete factor loadings can be found in appendix table C-2.

Table 14. Item flagged due to low factor loadings in the EDSCLS 2015 pilot instructional staff survey

Variable name	Description	Factor loading
IENVPENV99	Overcrowding is a problem at this school. <sup>1</sup>	0.348
IENVINS104	The students in my class(es) attend class regularly.	0.477

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Point-polyserial correlations

Point-polyserial correlations were computed for all items, except those in the emergency readiness/management topic. The average correlation of all items was 0.564, and two items were flagged because their correlations were lower than 0.3 (see table 15). Point-polyserial correlations by item can be found in appendix table D-2.

Table 15. Items flagged by low point-polyserial correlations with other items in the same domain in the EDSCLS 2015 pilot instructional staff survey

Variable name	Description	Point-polyserial
ISAFSUB84B	At this school, how much of a problem is student use of electronic cigarettes? <sup>1</sup>	0.261
IENVPENV99	Overcrowding is a problem at this school. <sup>1</sup>	0.196

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Infit/outfit statistics

As shown in table 16, a total of 19 items were flagged because their infit or outfit statistics were out of the range of 0.7 to 1.3. Physical environment, mental health, and substance abuse were the three topics with the most items flagged. Infit and outfit statistics for all items can be found in appendix table D-2.

Table 16. Items flagged by out-of-range infit or outfit statistics in the EDSLCS pilot instructional staff survey

Variable name	Description	Infit	Outfit
IENGCLC1	At this school, closing the racial/ethnic academic achievement gap is considered a high priority.	1.371	1.613
IENGCLC2	At this school, all students are treated equally, regardless of whether their parents are rich or poor.	1.230	1.417
ISAFPSAF60	The following types of problems occur at this school often: physical conflicts among students. <sup>1</sup>	1.284	1.447
ISAFSUB84B	At this school, how much of a problem is student use of electronic cigarettes? <sup>1</sup>	1.390	2.002
ISAFSUB84	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>1</sup>	1.497	2.043
ISAFSUB85	At this school, how much of a problem is student alcohol use? <sup>1</sup>	1.295	1.704
ISAFSUB89	At this school, first-time violations of alcohol or other drug policies are punished by at least an out-of-school suspension.	1.214	1.393
IENVPENV97	This school looks clean and pleasant.	1.108	1.680
IENVPENV99	Overcrowding is a problem at this school. <sup>1</sup>	1.804	2.028
IENVPENV100	My teaching is hindered by poor heating, cooling, and/or lighting systems at this school. <sup>1</sup>	1.629	1.997
IENVPENV101	My teaching is hindered by a lack of instructional space (e.g., classrooms) at this school. <sup>1</sup>	1.454	1.517
IENVPENV102	My teaching is hindered by a lack of textbooks and basic supplies at this school. <sup>1</sup>	1.331	1.359
IENVPENV103	My teaching is hindered by inadequate or outdated equipment or facilities at this school. <sup>1</sup>	1.407	1.521
IENVINS104	The students in my class(es) attend class regularly.	1.390	1.400
IENVINS105	The students in my class(es) come to class prepared with the appropriate supplies and books.	1.272	1.319
IENVINS112	Teachers at this school feel responsible when students at this school fail.	1.305	1.363
IENVMEN127	This school places a priority on social and emotional development.	0.693	0.674
IENVMEN137	This school places a priority on helping students with their social, emotional, and behavioral problems.	0.658	0.645
IENVDIS133	Staff at this school help students develop strategies to understand and control their feelings and actions.	0.720	0.699

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Summary

As with the student survey, the EDSCLS team reviewed the instructional staff items using the criteria discussed in section 4 and arrived at the final decisions as shown in table 17.

Table 17. Flags and final decisions for school climate items in the EDSCLS 2015 pilot instructional staff survey

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
IENGCLC1	At this school, closing the racial/ethnic academic achievement gap is considered a high priority.	IO	n
IENGCLC2	At this school, all students are treated equally, regardless of whether their parents are rich or poor.	IO	y-CLC
IENGCLC3	This school encourages students to take challenging classes no matter their race, ethnicity, nationality, and/or cultural background (e.g., honor level courses, gifted courses, AP or IB courses).		y-CLC
IENGCLC4	This school provides instructional materials (e.g., textbooks, handouts) that reflect students' cultural background, ethnicity and identity.		y-CLC
IENGCLC5	This school fosters an appreciation of student diversity and respect for each other.		n
IENGCLC6	This school emphasizes showing respect for all students' cultural beliefs and practices.		y-CLC
IENGCLC7	This school provides effective resources and training for teaching students with Individualized Education Programs (IEPs) across different languages and cultures.		y-CLC
IENGCLC8	This school provides effective supports for students needing alternative modes of communication (e.g., manual signs, communication boards, computer-based devices, picture exchange systems, Braille).		y-CLC
IENGREL9	Staff do a good job helping parents to support their children's learning at home.		y-REL
IENGREL10	Staff do a good job helping parents understand when their child needs to learn social, emotional, and character skills.		y-REL
IENGREL11	When a student is having social, emotional, or character challenges, staff work with his/her parents.		n
IENGREL12	If a student has done something well or makes improvement, staff contact his/her parents.		y-REL
IENGREL13	Staff do a good job showing parents how to keep track of their child's progress.		n
IENGREL14	This school asks families to volunteer at the school.		y-REL
IENGREL15	This school communicates with parents in a timely and ongoing basis.		y-REL
IENGP29	My level of involvement in decision making at this school is fine with me.		y-PAR
IENGP31	Staff at this school have many informal opportunities to influence what happens within the school.		y-PAR
IENGP32	At this school, students are given the opportunity to take part in decision making.		y-PAR
IENGP33	Students at this school are encouraged to help solve problems at this school.		n
IENGP35	Administrators consistently seek input from staff.		n

Table 17. Flags and final decisions for school climate items in the EDSCLS 2015 pilot instructional staff survey - continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
IENGP36	Administrators involve staff in decision-making.		y-PAR
IENGP37	This school's administration invites students to share their ideas about the school.		n
IENGP39	Staff at this school make it easy for students to suggest activities.		n
IENGP42	This school provides students with opportunities to take a lead role in organizing programs and activities.		y-PAR
IENGP48	Students are encouraged to get involved in extra-curricular activities.		y-PAR
ISAFEMO49	This school is an emotionally safe place for students.		n
ISAFEMO50	Students get along well with each other.		n
ISAFEMO51	This school is an emotionally safe place for staff.		n
ISAFEMO52	I feel like I belong.		y-EMO
ISAFEMO53	I feel satisfied with the recognition I get for doing a good job.		y-EMO
ISAFEMO54	I feel comfortable discussing feelings, worries, and frustrations with my supervisor.		y-EMO
ISAFEMO55	This school inspires me to do the very best at my job.		y-EMO
ISAFEMO56	People at this school care about me as a person.		y-EMO
ISAFEMO57	I can effectively work with defiant or disruptive students.		n
ISAFEMO58	I can manage almost any student behavior problem.		y
ISAFPSAF59	I feel safe at this school.		y-PSAF
ISAFPSAF60	The following types of problems occur at this school often: physical conflicts among students. <sup>3</sup>	IO	y-PSAF
ISAFPSAF61	The following types of problems occur at this school often: robbery or theft. <sup>3</sup>		y-PSAF
ISAFPSAF62	The following types of problems occur at this school often: vandalism. <sup>3</sup>		y-PSAF
ISAFPSAF63	The following types of problems occur at this school often: the sale of drugs on the way to or from school or on school grounds. <sup>3</sup>		n
ISAFPSAF64	The following types of problems occur at this school often: student possession of weapons. <sup>3</sup>		y-PSAF
ISAFPSAF65	The following types of problems occur at this school often: student gang activities. <sup>3</sup>		n
ISAFPSAF66	The following types of problems occur at this school often: physical abuse of teachers. <sup>3</sup>		y-PSAF
ISAFPSAF67	The following types of problems occur at this school often: student verbal abuse of teachers. <sup>3</sup>		y-PSAF
ISAFBUL68	I think that bullying is a frequent problem at this school. <sup>3</sup>		y-BUL
ISAFBUL69	I think that cyberbullying is a frequent problem among students at this school. <sup>3</sup>		y-BUL
ISAFBUL70	I think that racial/ethnic tension or discrimination among students is a frequent problem at this school. <sup>3</sup>		n
ISAFBUL71	Students at this school would feel comfortable reporting a bullying incident to a teacher or other staff.		y-BUL

Table 17. Flags and final decisions for school climate items in the EDSCLS 2015 pilot instructional staff survey - continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
ISAFBUL72	Staff at this school communicate to students that bullying is unacceptable.		n
ISAFBUL73	Staff at this school always stop bullying when they see it.		y-BUL
ISAFBUL74	Staff at this school know what to say or do to intervene in a bullying situation.		n
ISAFBUL75	This school provides bullying prevention.		n
ISAFBUL79	Staff at this school are teased or picked on about their race or ethnicity. <sup>3</sup>		y-BUL
ISAFBUL80	Staff at this school are teased or picked on about their cultural background or religion. <sup>3</sup>		y-BUL
ISAFBUL81	Staff at this school are teased or picked on about their physical or mental disability. <sup>3</sup>		y-BUL
ISAFBUL82	Staff at this school are teased or picked on about their sexuality. <sup>3</sup>		y-BUL
ISAFSUB83	At this school, how much of a problem is student drug use? <sup>3</sup>		y
ISAFSUB84B	At this school, how much of a problem is student use of electronic cigarettes? <sup>3</sup>	PP/IO	y
ISAFSUB84	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>3</sup>	IO	y
ISAFSUB85	At this school, how much of a problem is student alcohol use? <sup>3</sup>	IO	y
ISAFSUB86	This school collaborates well with community organizations to help address youth substance use problems.		y-SUB
ISAFSUB87	This school has adequate resources to address substance use prevention.		y-SUB
ISAFSUB88	This school provides effective confidential support and referral services for students needing help because of substance abuse (e.g., a Student Assistance Program).	INR	y-SUB
ISAFSUB89	At this school, first-time violations of alcohol or other drug policies are punished by at least an out-of-school suspension.	INR/IO	n
ISAFSUB90	This school has programs, resources, and/or policies to prevent substance abuse.	INR	n
ISAFSUB91	This school has programs that address substance use among students.	INR	y-SUB
ISAFERM92	I know what to do if there is an emergency, natural disaster (tornado, flood) or a dangerous situation (e.g., violent person on campus) during the school day.		y
ISAFERM93	This school has a written plan that describes procedures to be performed in shootings.		y
ISAFERM94	This school has a written plan that clearly describes procedures to be performed in natural disasters (e.g., earthquakes or tornadoes).		y
ISAFERM95	This school or school district provides effective training in safety procedures to staff (e.g., lockdown training or fire drills).		y
IENVPENV96	This school campus provides a welcoming place for visitors.		n
IENVPENV97	This school looks clean and pleasant.	IO	y-PENV
IENVPENV98	This school is an inviting work environment.		y-PENV

Table 17. Flags and final decisions for school climate items in the EDSCLS 2015 pilot instructional staff survey - continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
IENVPENV99	Overcrowding is a problem at this school. <sup>3</sup>	FL/PP/ IO	n
IENVPENV100	My teaching is hindered by poor heating, cooling, and/or lighting systems at this school. <sup>3</sup>	IO	y-PENV
IENVPENV101	My teaching is hindered by a lack of instructional space (e.g., classrooms) at this school. <sup>3</sup>	IO	y-PENV
IENVPENV102	My teaching is hindered by a lack of textbooks and basic supplies at this school. <sup>3</sup>	IO	y-PENV
IENVPENV103	My teaching is hindered by inadequate or outdated equipment or facilities at this school. <sup>3</sup>	IO	y-PENV
IENVINS104	The students in my class(es) attend class regularly.	FL/IO	n
IENVINS105	The students in my class(es) come to class prepared with the appropriate supplies and books.	IO	y-INS
IENVINS106	The students in my class(es) actively participate in class activities.		n
IENVINS107	Once we start a new program at this school, we follow up to make sure that it's working.		y-INS
IENVINS108	The programs and resources at this school are adequate to support students' learning.		y-INS
IENVINS110	Teachers at this school feel responsible to help each other do their best.		y-INS
IENVINS112	Teachers at this school feel responsible when students at this school fail.	IO	n
IENVINS114	The curriculum at this school is focused on helping students get ready for college.		n
IENVINS115	Teachers at this school feel that it is a part of their job to prepare students to succeed in college.		y-INS
IENVINS116	The programs and resources at this school are adequate to support students with special needs or disabilities.		y-INS
IENVPHEA117	Staff at this school promote students' physical health and nutrition.		n
IENVPHEA119	This school provides the materials, resources, and training necessary for me to support students' physical health and nutrition.	INR	y-PHEA
IENVPHEA120	This school places a priority on making healthy food choices.	INR	y-PHEA
IENVPHEA121	This school places a priority on students' health needs.	INR	y-PHEA
IENVPHEA122	This school places a priority on students' physical activity.	INR	y-PHEA
IENVPHEA138	This school provides quality physical health and nutrition instruction.	INR	n
IENVMEN123	This school provides quality counseling or other services to help students with social or emotional needs.		y-MEN
IENVMEN124	Staff at this school help students develop strategies to understand and control their feelings and behavior.	INR	n
IENVMEN125	This school provides the materials, resources, and training necessary for me to support students' social or emotional needs.	INR	y-MEN



Table 17. Flags and final decisions for school climate items in the EDSCLS 2015 pilot instructional staff survey - continued

Variable name	Description	Flag <sup>1</sup>	Decision <sup>2</sup>
IENVMEN126	This school places a priority on addressing students' mental health needs.	INR	y-MEN
IENVMEN127	This school places a priority on social and emotional development.	INR/IO	n
IENVMEN128	This school places a priority on teaching students strategies to manage their stress levels.	INR	y-MEN
IENVMEN137	This school places a priority on helping students with their social, emotional, and behavioral problems.	INR/IO	y-MEN
IENVDIS129	Staff at this school are clearly informed about school policies and procedures.	INR	y-DIS
IENVDIS130	Staff at this school recognize students for positive behavior.	INR	y-DIS
IENVDIS131	Staff at this school encourage students to think about how their actions affect others.	INR	n
IENVDIS132	Staff at this school assign consequences that help students learn from their behavior.	INR	n
IENVDIS133	Staff at this school help students develop strategies to understand and control their feelings and actions.	INR/IO	n
IENVDIS134	School rules are applied equally to all students.	INR	y-DIS
IENVDIS134B	School rules for behavior are strict.	INR	n
IENVDIS134C	Discipline is fair.	INR	y-DIS
IENVDIS135	This school effectively handles student discipline and behavior problems.	INR	y-DIS
IENVDIS136	Staff at this school work together to ensure an orderly environment.	INR	y-DIS

<sup>1</sup> The Flag column notations mean the following - FL: Flagged due to low factor loading; PP: Flagged due to low point-polyserial correlation; IO: Flagged due to out-of-range infit/outfit statistics.

<sup>2</sup> The Decision column notations mean the following - n: Item has been dropped; y: Item will be included as a standalone item; y-XXX: Item will be included in the XXX scale (e.g., y-CLC means the item will be included in the cultural and linguistic competence scale). The acronyms for the scales are cultural and linguistic competence (CLC), relationships (REL), school participation (PAR), emotional safety (EMO), physical safety (PSAF), bullying/cyberbullying (BUL), substance abuse (SUB), physical environment (PENV), instructional environment (INS), physical health (PHEA), mental health (MEN), and discipline (DIS).

<sup>3</sup> Item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

After deletions, 77 school climate items (68 scale items plus nine stand-alone items) were retained for consideration for use in the final instructional staff survey. In the next section, the final set of 68 scale items is evaluated for scale reliability, as indicated by Cronbach's alpha, construct validity using confirmatory factor analysis, item fit, and differential item functioning by Rasch analysis.

## Instructional staff scale reliability and validity

### Cronbach's alpha

As shown in table 18, based on Kline's (1993) 0.7 standard, the alphas for all topics met the standard for this measure.

Table 18. Cronbach's alpha by domain and topic in the EDSCLS 2015 pilot instructional staff survey

Domain/topic	Alpha	Number of items
<i>Engagement</i>	0.917	17
Cultural and linguistic competence	0.802	6
Relationships	0.805	5
School participation	0.868	6
<i>Safety</i>	0.920	24
Emotional safety	0.875	6
Physical safety	0.850	6
Bullying/cyberbullying	0.849	8
Substance abuse	0.862	4
<i>Environment</i>	0.946	27
Physical environment	0.813	6
Instructional environment	0.783	6
Physical health	0.880	4
Mental health	0.913	5
Discipline	0.894	6

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Confirmatory factor analysis

As in the student survey, using the final set of items with all the data, a hierarchical one-factor model with multiple first-order factors was fit for each of the three domains. The factor loadings were all greater than 0.5 (see table E-2). The model fit statistics are shown in table 19. As in table 11, all three indices (CFI, TLI, and RMSEA) met the chosen standards.

Table 19. Model fit statistics by domain in the EDSCLS 2015 pilot instructional staff survey

Domain	N	RMSEA	CFI	TLI
Engagement	992	0.080	0.959	0.965
Safety	958	0.092	0.946	0.952
Environment	921	0.080	0.960	0.964

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Item fits

The infit/outfit statistics were in the range of 0.7 to 1.3, except for IENGCLC2, ISAFPSAF60, IENVPENV97, IENVPENV100, IENVPENV101, IENVPENV102, IENVPENV103, IENVPENV105, and IENVMEN137, whose item fit statistics fell outside this range. However, they did not degrade the measurement because their values were generally well below 2.0. Infit and outfit statistics for all scale items can be found in appendix table F-2.

### Differential item functioning

The survey items did not seem to function differently across gender, race (White vs. non-White), special education, and years working at school (3 or less). Item measures for each of the groups can be found in appendix table G-2.

#### 5.1.3 Noninstructional staff survey

The EDSCS 2015 pilot noninstructional staff survey consisted of 137 items, including 5 general demographic questions and 132 items measuring 13 topics in 3 domains: Engagement (ENG), Safety (SAF), and Environment (ENV). All 132 topical items used a 4-point Likert response option scale. The breakdown of the survey, by the number of items in each topic, is shown in table 20. The exact wording of each item, along with flags and the final decision about whether to retain it in the survey, can be found in table 25.

Table 20. EDSCS 2015 pilot noninstructional staff survey, by domain, topic, and item

Domain	Topic	Item
Engagement (ENG)	Cultural and linguistic competence (CLC)	8 items with prefix NENGCLC
	Relationships (REL)	11 items with prefix NENGREL and 6 items with prefix NPENGREL
	School participation (PAR)	10 items with prefix NENGPART and 2 items with prefix NPENGPART
Safety (SAF)	Emotional safety (EMO)	10 items with prefix NSAFEMO
	Physical safety (PSAF)	9 items with prefix NSAFPSTAF
	Bullying/cyberbullying (BUL)	12 items with prefix NSAFBUL
	Substance abuse (SUB)	10 items with prefix NSAFSUB
	Emergency readiness/management (ERM)	4 items with prefix NSAFERM and 3 items with prefix NPSAFERM
Environment (ENV)	Physical environment (PENVP)	9 items with prefix NENVPENVP and 2 items with prefix NPENVPENVP
	Instructional environment (INS)	7 items with prefix NENVINS and 2 items with prefix NPENVINS
	Physical health (PHEA)	5 items with prefix NENVPHEA and 2 items with prefix NPENVPHEA
	Mental health (MEN)	6 items with prefix NENVMEN and 2 items with prefix NPENVMEN
	Discipline (DIS)	10 items with prefix NENVDIS and

Domain	Topic	Item
		2 items with prefix NPENVDIS

### Noninstructional staff item analysis

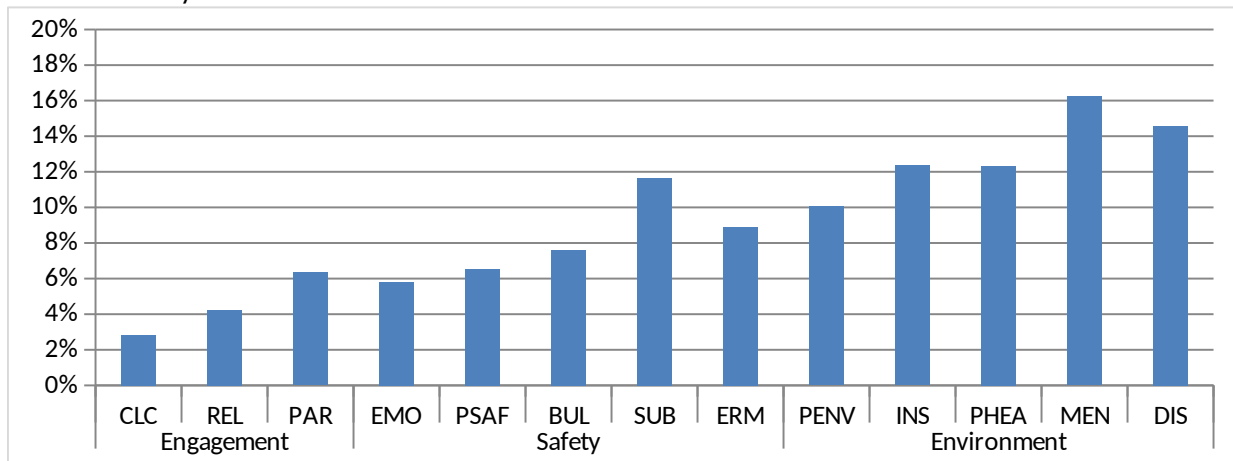
For the items in the noninstructional staff survey, the item nonresponse rate (omitted or not reached), percentage distribution of responses within each response category, factor loading to the underlying construct, point-polyserial correlation with the total raw score, and infit/outfit values were evaluated using the same criteria as were used for the student and instructional staff surveys (see table 4).

Twenty-one items in the noninstructional staff survey were asked of principals only; because only 15 principals responded to the survey, these items were excluded from the analyses. Therefore, the following analyses include only the remaining 111 school climate items.

### Item missing rate

The item nonresponse rate ranged from 0.9 to 17.4 percent, with an average of 8.8 percent. Items in later topics had, on average, a higher nonresponse rate than items in earlier topics (figure 2).

Figure 3. Average nonresponse rate by domain and topic in the EDSCLS 2015 pilot noninstructional staff survey



SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

Items with a nonresponse rates higher than 10 percent are listed in table 21. However, many items were presented towards the end of the survey. The high item nonresponse rates for these items may be due to breakoffs. See appendix table A-3 for item nonresponse rates for the complete list of items.

Table 21. Items flagged due to high item nonresponse rates in the EDSCLS 2015 pilot noninstructional staff survey

Variable name	Description	INR
NSAFSUB82	At this school, how much of a problem is student alcohol use? <sup>1</sup>	10.9%
NSAFSUB83	This school collaborates well with community organizations to help address youth substance use problems.	12.6%
NSAFSUB84	This school has adequate resources to address substance use prevention.	10.9%
NSAFSUB85	This school provides effective confidential support and referral services for students needing help because of substance abuse (e.g., a Student Assistance Program).	12.6%

NSAFSUB86	At this school, first-time violations of alcohol or other drug policies are punished by at least an out-of-school suspension.	13.9%
NSAFSUB87	This school has programs, resources, and/or policies to prevent substance abuse.	13.0%
NSAFSUB88	This school has programs that address substance use among students.	15.2%
NENVPENV96	Overcrowding is a problem at this school.	11.3%
NENVPENV97	My work is hindered by poor heating, cooling, and/or lighting systems at this school.	10.9%
NENVPENV98	My work is hindered by insufficient workspace at this school.	10.0%
NENVPENV100	My work is hindered by inadequate or outdated equipment or facilities at this school.	10.9%
NENVPENV104	My workspace at this school is comfortable.	10.0%

Table 21. Items flagged due to high item nonresponse rates in the EDSCLS 2015 pilot noninstructional staff survey - continued

Variable name	Description	INR
NENVINS107	Once we start a new program at this school, we follow up to make sure that it's working.	15.2%
NENVINS108	We have so many different programs at this school that I can't keep track of them all.	12.6%
NENVINS109	Staff at this school feel responsible to help each other do their best.	11.7%
NENVINS110	Staff at this school feel responsible when students at this school fail.	13.0%
NENVINS111	The programs and resources at this school are adequate to support students with special needs or disabilities.	10.9%
NENVINS140	Staff at this school feel that it is a part of their job to prepare students to succeed in college.	11.7%
NENVINS141	Staff at this school expect students to do their best all the time.	11.3%
NENVPHEA114	Staff at this school promote students' physical health and nutrition.	11.7%
NENVPHEA115	This school provides the materials, resources, and training necessary for me to support students' physical health and nutrition.	13.5%
NENVPHEA117	This school places a priority on making healthy food choices.	12.2%
NENVPHEA118	This school places a priority on students' health needs.	12.2%
NENVPHEA119	This school places a priority on students' physical activity.	12.2%
NENVMEN122	This school places a priority on addressing students' mental health needs.	16.5%
NENVMEN123	This school places a priority on social and emotional development.	14.8%
NENVMEN124	Staff at this school help students develop strategies to understand and control their feelings and behavior.	15.7%
NENVMEN125	This school places a priority on teaching students strategies to manage their stress levels.	17.4%
NENVMEN126	This school provides the materials, resources, and training necessary for me to support students' social or emotional needs.	17.0%
NENVMEN127	This school provides quality counseling or other services to help students with social or emotional needs.	16.1%
NENVDIS130	Staff at this school are clearly informed about school policies and procedures.	13.0%
NENVDIS131	Staff at this school recognize students for positive behavior.	13.9%
NENVDIS132	Staff at this school encourage students to think about how their actions affect others.	13.5%
NENVDIS133	Staff at this school assign consequences that help students learn from their behavior.	13.9%
NENVDIS134	School rules are applied equally to all students.	13.9%
NENVDIS134B	School rules for behavior are strict.	15.2%
NENVDIS134C	Discipline is fair.	13.9%

NENVDIS135	Staff at this school help students develop strategies to understand and control their feelings and actions.	17.4%
NENVDIS136	This school effectively handles student discipline and behavior problems.	15.7%
NENVDIS137	Staff at this school work together to ensure an orderly environment.	15.2%

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Response variance

Among the 111 school climate items, none had 90 percent or more of the valid responses clustered in one response option. Therefore, no items were flagged due to low response variance. The percentage of responses ranged from 0 to 14.4 percent for the most negative option, from 2.3 to 44.3 percent for the somewhat negative option, from 21.1 to 70.4 percent for the somewhat positive option, and from 6.5 to 69.9 percent for the most positive option. The percentage of responses in each category, by item, can be found in appendix table B-3.

### Factor loadings

A hierarchical confirmatory factor model was fit to the items in each domain, with the topics in the domain as first-order factors. Two items were flagged because they had a first-order factor loading less than 0.5 (see table 22). The complete factor loadings can be found in appendix table C-3.

Table 22. Items flagged due to low factor loadings in the EDSCLS 2015 pilot noninstructional staff survey

Variable name	Description	Factor loading
NENGCLC1	At this school, closing the racial/ethnic academic achievement gap is considered a high priority.	0.483
NENVINS108	We have so many different programs at this school that I can't keep track of them all. <sup>1</sup>	0.126

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Point-polyserial correlations

Point-polyserial correlations were computed for all items in each domain, except the items in Emergency Readiness/Management. The average point-polyserial correlation of all items was 0.560. Four items were flagged due to a point-polyserial correlation lower than 0.3 (see table 23). Point-polyserial correlations by item can be found in appendix table D-3.

Table 23. Items flagged by low point-polyserial correlations in the EDSCLS 2015 pilot noninstructional staff survey

Variable name	Description	Point-polyserial
NSAFSUB81B	At this school, how much of a problem is student use of electronic cigarettes? <sup>1</sup>	0.201
NENVPENV97	My work is hindered by poor heating, cooling, and/or lighting systems at this school. <sup>1</sup>	0.268
NENVPENV100	My work is hindered by inadequate or outdated equipment or facilities at this school. <sup>1</sup>	0.300
NENVINS108	We have so many different programs at this school that I can't keep track of them all. <sup>1</sup>	0.115

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Infit/outfit statistics**

As shown in table 24, a total of 20 items were flagged because their infit or outfit statistics are out of the range of 0.7 to 1.3. Cultural and Linguistic Competence, Substance Abuse, Physical Environment, Mental Health, and Discipline each had four items flagged by this criterion. A complete list of infit and outfit statistics for each item can be found in appendix table D-3.

Table 24. Items flagged by out-of-range infit or outfit statistics in the EDSCS 2015 pilot noninstructional staff survey

Variable name	Description	Infit	Outfit
NENGCLC1	At this school, closing the racial/ethnic academic achievement gap is considered a high priority.	1.59 3	2.131
NENGCLC2	At this school, all students are treated equally, regardless of whether their parents are rich or poor.	1.15 3	1.516
NENGCLC4	This school provides instructional materials (e.g., textbooks or handouts) that reflect students' cultural background, ethnicity and identity.	1.30 6	1.362
NSAFEMO148	I can manage almost any student behavior problem.	1.32 5	1.385
NSAFSUB80	At this school, how much of a problem is student drug use? <sup>1</sup>	1.21 3	1.981
NSAFSUB81B	At this school, how much of a problem is student use of electronic cigarettes? <sup>1</sup>	1.44 3	2.015
NSAFSUB81	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>1</sup>	1.37 1	1.932
NSAFSUB82	At this school, how much of a problem is student alcohol use?	1.25 4	1.423
NENVPENV96	Overcrowding is a problem at this school. <sup>1</sup>	1.57 0	1.750
NENVPENV97	My work is hindered by poor heating, cooling, and/or lighting systems at this school. <sup>1</sup>	1.81 8	2.069
NENVPENV99	My work is hindered by a lack of materials and basic supplies at this school. <sup>1</sup>	1.37 4	1.347
NENVPENV100	My work is hindered by inadequate or outdated equipment or facilities at this school. <sup>1</sup>	1.63 7	1.861
NENVINS107	Once we start a new program at this school, we follow up to make sure that it's working.	0.70 4	0.688
NENVINS108	We have so many different programs at this school that I can't keep track of them all. <sup>1</sup>	2.03 1	2.336
NENVPHEA114	Staff at this school promote students' physical health and nutrition.	0.75 2	0.663
NENVPHEA118	This school places a priority on students' health needs.	0.77 3	0.678
NENVMEN122	This school places a priority on addressing students' mental health needs.	0.76 2	0.674
NENVMEN124	Staff at this school help students develop strategies to understand and control their feelings and behavior.	0.67 8	0.627
NENVDIS135	Staff at this school help students develop strategies to understand and control their feelings and actions.	0.64 4	0.600
NENVDIS137	Staff at this school work together to ensure an orderly environment.	0.77	0.684



<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Summary

Since the majority of the items were the same in the instructional and noninstructional staff surveys and there were relatively fewer respondents<sup>8</sup> in the noninstructional staff survey, the EDSCLS team reviewed the items and made decisions consistent with those for the instructional staff survey. The final decisions are shown in table 25.<sup>9</sup> Ultimately, 77 school climate items (68 scale items and nine stand-alone items) were selected for consideration for inclusion in the final set of items for the noninstructional staff survey.

Table 25. Flags and final decisions for school climate items in the EDSCLS 2015 pilot noninstructional staff survey

Variable Name	Description	Flags <sup>1</sup>	Decision <sup>2</sup>
NENGCLC1	At this school, closing the racial/ethnic academic achievement gap is considered a high priority.	FL/IO	n
NENGCLC2	At this school, all students are treated equally, regardless of whether their parents are rich or poor.	IO	y-CLC
NENGCLC3	This school encourages students to take challenging classes no matter their race, ethnicity, nationality, and/or cultural background (e.g., honor level courses, gifted courses, AP or IB courses).		y-CLC
NENGCLC4	This school provides instructional materials (e.g., textbooks or handouts) that reflect students' cultural background, ethnicity and identity.	IO	y-CLC
NENGCLC5	This school fosters an appreciation of student diversity and respect for each other.		n
NENGCLC6	This school emphasizes showing respect for all students' cultural beliefs and practices.		y-CLC
NENGCLC7	This school provides effective resources and training for teaching students with Individualized Education Programs (IEPs) across different languages and cultures.		y-CLC
NENGCLC8	This school provides effective supports for students needing alternative modes of communication (e.g., manual signs, communication boards, computer-based devices, picture exchange systems, Braille).		y-CLC
NENGREL16	This school helps parents find community supports for their students who need them.		y-REL
NENGREL17	Staff at this school do a good job helping parents to support their children's learning at home.		y-REL
NENGREL18	Staff at this school do a good job helping parents understand when their child needs to learn social and emotional skills.		y-REL

<sup>8</sup> A sample size of 500 is often recommended for psychometric analysis. However, the noninstructional staff survey only had about 230 respondents.

<sup>9</sup> The twenty-one principal-only items are not listed in the table. They will be included in the survey as standalone items.

NENGREL19	When a student is having social or emotional challenges, staff at this school work with the family.	n
NENGREL21	Staff at this school do a good job showing families how to keep track of their child's progress.	n
NENGREL24	At this school the staff get along well.	y-REL
NENGREL25	At this school there is a feeling of trust among the staff.	y-REL
NENGREL26	At this school staff are willing to help each other out.	n
NENGREL27	At this school the staff respect each other.	n
NENGREL29	At this school staff care about students.	n
NENGREL30	At this school students get along well with the staff.	y-REL

Table 25. Flags and final decisions for school climate items in the EDSCLS 2015 pilot noninstructional staff survey - continued

Variable Name	Description	Flags <sup>1</sup>	Decision <sup>2</sup>
NENGP33	Administrators ask staff for input on an ongoing basis.		n
NENGP34	Administrators ask staff to be involved in making decisions.		y-PAR
NENGP35	My level of involvement in decision making at this school is fine with me.		n
NENGP37	Staff at this school have many informal opportunities to influence what happens within the school.		y-PAR
NENGP38	At this school, students are given the opportunity to take part in decision making.		y-PAR
NENGP39	Students at this school are encouraged to help solve problems at this school.		n
NENGP41	This school's administration invites students to share their ideas about the school.		n
NENGP43	Staff at this school make it easy for students to suggest activities.		n
NENGP44	This school provides students with opportunities to take a lead role in organizing programs and activities.		y-PAR
NENGP47	Students are encouraged to get involved in extra-curricular activities.		y-PAR
NSAFEMO48	This school is an emotionally safe place for students.		n
NSAFEMO49	Students get along well with each other.		n
NSAFEMO50	This school is an emotionally safe place for staff.		n
NSAFEMO51	I feel like I belong.		y-EMO
NSAFEMO52	I feel satisfied with the recognition I get for doing a good job.		y-EMO
NSAFEMO53	I feel comfortable discussing feelings, worries, and frustrations with my supervisor.		y-EMO
NSAFEMO54	This school inspires me to do the very best at my job.		y-EMO
NSAFEMO55	People at this school care about me as a person.		y-EMO
NSAFEMO147	I can effectively work with defiant or disruptive students.		n
NSAFEMO148	I can manage almost any student behavior problem.	IO	y-EMO
NSAFPSAF56	I feel safe at this school.		y
NSAFPSAF57	The following types of problems occur at this school often: Physical conflicts among students. <sup>3</sup>		y-PSAF
NSAFPSAF58	The following types of problems occur at this school often: robbery or theft. <sup>3</sup>		y-PSAF
NSAFPSAF59	The following types of problems occur at this school often:		y-PSAF

NSAFPSAF60	vandalism. <sup>3</sup> The following types of problems occur at this school often: the sale of drugs on the way to or from school or on school grounds. <sup>3</sup>	n
NSAFPSAF61	The following types of problems occur at this school often: student possession of weapons. <sup>3</sup>	y-PSAF
NSAFPSAF62	The following types of problems occur at this school often: student gang activities. <sup>3</sup>	n
NSAFPSAF63	The following types of problems occur at this school often: physical abuse of teachers. <sup>3</sup>	y-PSAF

Table 25. Flags and final decisions for school climate items in the EDSCLS 2015 pilot noninstructional staff survey - continued

Variable Name	Description	Flags <sup>1</sup>	Decision <sup>2</sup>
NSAFPSAF64	The following types of problems occur at this school often: student verbal abuse of teachers. <sup>3</sup>		y-PSAF
NSAFBUL65	I think that bullying is a frequent problem at this school. <sup>3</sup>		y-BUL
NSAFBUL66	I think that cyberbullying is a frequent problem among students at this school. <sup>3</sup>		y-BUL
NSAFBUL67	I think that racial/ethnic tension or discrimination among students is a frequent problem at this school. <sup>3</sup>		n
NSAFBUL68	Students at this school would feel comfortable reporting a bullying incident to staff.		n
NSAFBUL69	Staff at this school communicate to students that bullying is unacceptable.		n
NSAFBUL70	Staff at this school always stop bullying when they see it.		y-BUL
NSAFBUL71	Staff at this school know what to say or do to intervene in a bullying situation.		n
NSAFBUL72	This school provides bullying prevention.		n
NSAFBUL76	Staff at this school are teased or picked on about their race or ethnicity. <sup>3</sup>		y-BUL
NSAFBUL77	Staff at this school are teased or picked on about their cultural background or religion. <sup>3</sup>		y-BUL
NSAFBUL78	Staff at this school are teased or picked on about their physical or mental disability. <sup>3</sup>		y-BUL
NSAFBUL79	Staff at this school are teased or picked on about their sexuality. <sup>3</sup>		y-BUL
NSAFSUB80	At this school, how much of a problem is student drug use? <sup>3</sup>	IO	y
NSAFSUB81B	At this school, how much of a problem is student use of electronic cigarettes? <sup>3</sup>	PP/IO	y
NSAFSUB81	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>3</sup>	IO	y
NSAFSUB82	At this school, how much of a problem is student alcohol use? <sup>3</sup>	INR/IO	y
NSAFSUB83	This school collaborates well with community organizations to help address youth substance use problems.	INR	y-SUB
NSAFSUB84	This school has adequate resources to address substance use prevention.	INR	y-SUB
NSAFSUB85	This school provides effective confidential support and referral services for students needing help because of substance abuse	INR	y-SUB

	(e.g., a Student Assistance Program).		
NSAFSUB86	At this school, first-time violations of alcohol or other drug policies are punished by at least an out-of-school suspension.	INR	n
NSAFSUB87	This school has programs, resources, and/or policies to prevent substance abuse.	INR	y-SUB
NSAFSUB88	This school has programs that address substance use among students.	INR	y-SUB
NSAFERM89	I know what to do if there is an emergency, natural disaster (tornado, flood) or a dangerous situation (e.g., violent person on campus) during the school day.		y

Table 25. Flags and final decisions for school climate items in the EDSCLS 2015 pilot noninstructional staff survey - continued

Variable Name	Description	Flags <sup>1</sup>	Decision <sup>2</sup>
NSAFERM90	This school has a written plan that describes procedures to be performed in shootings.	INR	y
NSAFERM91	This school has a written plan that clearly describes procedures to be performed in natural disasters (e.g., earthquakes or tornadoes).		y
NSAFERM92	This school or school district provides effective training in safety procedures to staff (e.g., lockdown training or fire drills).		y
NENVPENV96	Overcrowding is a problem at this school. <sup>3</sup>	INR/IO	n
NENVPENV97	My work is hindered by poor heating, cooling, and/or lighting systems at this school. <sup>3</sup>	INR/PP/IO	y-PENV
NENVPENV98	My work is hindered by insufficient workspace at this school. <sup>3</sup>	INR	y-PENV
NENVPENV99	My work is hindered by a lack of materials and basic supplies at this school. <sup>3</sup>	IO	y-PENV
NENVPENV100	My work is hindered by inadequate or outdated equipment or facilities at this school. <sup>3</sup>	INR/PP/IO	y-PENV
NENVPENV101	This school campus provides a welcoming place for visitors.		n
NENVPENV102	This school looks clean and pleasant.		y-PENV
NENVPENV103	This school is an inviting work environment.		y-PENV
NENVPENV104	My workspace at this school is comfortable.	INR	n
NENVINS107	Once we start a new program at this school, we follow up to make sure that it's working.	INR/IO	n
NENVINS108	We have so many different programs at this school that I can't keep track of them all. <sup>3</sup>	FL/PP/IO	n
NENVINS109	Staff at this school feel responsible to help each other do their best.	INR	y-INS
NENVINS110	Staff at this school feel responsible when students at this school fail.	INR	y-INS
NENVINS111	The programs and resources at this school are adequate to support students with special needs or disabilities.	INR	y-INS
NENVINS140	Staff at this school feel that it is a part of their job to prepare students to succeed in college.	INR	y-INS
NENVINS141	Staff at this school expect students to do their best all the time.	INR	y-INS
NENVPHEA114	Staff at this school promote students' physical health and nutrition.	INR/IO	n
NENVPHEA115	This school provides the materials, resources, and training	INR	y-PHEA

	necessary for me to support students' physical health and nutrition.		
NENVPHEA117	This school places a priority on making healthy food choices.	INR	y-PHEA
NENVPHEA118	This school places a priority on students' health needs.	INR/IO	y-PHEA
NENVPHEA119	This school places a priority on students' physical activity.	INR	y-PHEA
NENVMEN122	This school places a priority on addressing students' mental health needs.	INR/IO	y-MEN
NENVMEN123	This school places a priority on social and emotional development.	INR	n

Table 25. Flags and final decisions for school climate items in the EDSCLS 2015 pilot noninstructional staff survey - continued

Variable Name	Description	Flags <sup>1</sup>	Decision <sup>2</sup>
NENVMEN124	Staff at this school help students develop strategies to understand and control their feelings and behavior.	INR/IO	n
NENVMEN125	This school places a priority on teaching students strategies to manage their stress levels.	INR	y-MEN
NENVMEN126	This school provides the materials, resources, and training necessary for me to support students' social or emotional needs.	INR	y-MEN
NENVMEN127	This school provides quality counseling or other services to help students with social or emotional needs.	INR	y-MEN
NENVDIS130	Staff at this school are clearly informed about school policies and procedures.	INR	y-DIS
NENVDIS131	Staff at this school recognize students for positive behavior.	INR	y-DIS
NENVDIS132	Staff at this school encourage students to think about how their actions affect others.	INR	y-DIS
NENVDIS133	Staff at this school assign consequences that help students learn from their behavior.	INR	n
NENVDIS134	School rules are applied equally to all students.	INR	y-DIS
NENVDIS134B	School rules for behavior are strict.	INR	n
NENVDIS134C	Discipline is fair.	INR	y-DIS
NENVDIS135	Staff at this school help students develop strategies to understand and control their feelings and actions.	INR/IO	y-DIS
NENVDIS136	This school effectively handles student discipline and behavior problems.	INR	y-DIS
NENVDIS137	Staff at this school work together to ensure an orderly environment.	INR/IO	y-DIS

<sup>1</sup> The Flag column notations mean the following - FL: Flagged due to low factor loading; PP: Flagged due to low point-polyserial correlation; IO: Flagged due to out-of-range infit/outfit statistics.

<sup>2</sup> The Decision column notations mean the following - n: Item has been dropped; y: Item will be included as a standalone item; y-XXX: Item will be included in the XXX scale (e.g., y-CLC means the item will be included in the cultural and linguistic competence scale). The acronyms for the scales are cultural and linguistic competence (CLC), relationships (REL), school participation (PAR), emotional safety (EMO), physical safety (PSAF), bullying/cyberbullying (BUL), substance abuse (SUB), physical environment (PENV), instructional environment (INS), physical health (PHEA), mental health (MEN), and discipline (DIS).

<sup>3</sup> Item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### *Noninstructional staff scale reliability and validity*

#### **Cronbach's alpha**

As shown in table 26, based on Kline's (1993) 0.7 standard, the alphas for all topics met the standard for this measure.

Table 26. Cronbach’s alpha by domain and topic in the EDSCLS 2015 pilot noninstructional staff survey

Domain/topic	Alpha	Number of items
<i>Engagement</i>	0.931	17
Cultural and linguistic competence	0.824	6
Relationships	0.865	6
School participation	0.846	5
<i>Safety</i>	0.919	24
Emotional safety	0.877	6
Physical safety	0.859	6
Bullying/cyberbullying	0.834	7
Substance abuse	0.908	5
<i>Environment</i>	0.950	27
Physical environment	0.814	6
Instructional environment	0.803	5
Physical health	0.876	4
Mental health	0.888	4
Discipline	0.914	8

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Confirmatory factor analysis

As in the instructional survey, using the final set of items, a hierarchical one-factor model with multiple first-order factors was fit for each of the three domains. The factor loadings were all greater than 0.5 (see appendix table E-3). The model fit statistics are shown in table 27. The table shows that all three indices (CFI, TLI, and RMSEA) met the chosen standards (except the RMSEA statistics for the environment domain, but they were close to the standard of less than 0.1).

Table 27. Model fit statistics by domain in the EDSCLS 2015 pilot noninstructional staff survey

Domain	N	RMSEA	CFI	TLI
Engagement	230	0.098	0.945	0.953
Safety	222	0.100	0.933	0.940
Environment	210	0.097	0.935	0.941

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Item fits

Some of the infit and outfit statistics were outside the range of 0.7 to 1.3, but they did not degrade the measurement because the values were generally under 2.0 except NENVPENV97 with an outfit value of 2.080. Moreover, since the sample size did not meet the recommended level (500), some of the out-of-range values may be due to chance. Infit and outfit statistics for all scale items can be found in appendix table F-3.

### Differential item functioning

In general, the survey items did not seem to function differently across gender, race (White vs. non-White), special education, or years working at school (3 or less). A few pairs of measures differed by greater than 0.64. However, since the sample size did not meet the recommended level (500), that may

be a result of large variation associated with the small sample size. Item measures for each of the groups can be found in appendix table G-3.

#### 5.1.4 Parent survey

The EDSCLS 2015 pilot parent survey consisted of 47 items, including 3 general demographic questions and 44 items measuring 13 topics in three domains: Engagement (ENG), Safety (SAF), and Environment (ENV). All 44 topical items used a 4-point Likert response option scale. The breakdown of the survey, by the number of items in each topic, is shown in table 29. The exact wording of each item, as well as flags and the final decision about each item, can be found in table 34.

Table 29. EDSCLS 2015 parent survey, by domain, topic, and item

Domain	Topic	Item
Engagement (ENG)	Cultural and linguistic competence (CLC)	5 items with prefix PENGCLC
	Relationships (REL)	5 items with the prefix PENGREL
	School participation (PAR)	2 items with the prefix PENGREL <sup>1</sup>
Safety (SAF)	Emotional safety (EMO)	3 items with prefix PSAFEMO
	Physical safety (PSAF)	4 items with prefix PSAFPSAF
	Bullying/cyberbullying (BUL)	3 items with prefix PSAFBUL
	Substance abuse (SUB)	4 items with prefix PSAFSUB
	Emergency readiness/management (ERM)	3 items with prefix PSAFERM
Environment (ENV)	Physical environment (PENV)	2 items with prefix PENVPENV
	Instructional environment (INS)	5 items with prefix PENVINS
	Physical health (PHEA)	1 items with prefix PENVPHEA
	Mental health (MEN)	2 items with prefix PENVMEN
	Discipline (DIS)	5 items with prefix PENVDIS

<sup>1</sup> The prefix will be updated to PENGPAR in the released platform to distinguish with the 5 items in the relationship topic.

#### Parent item analysis

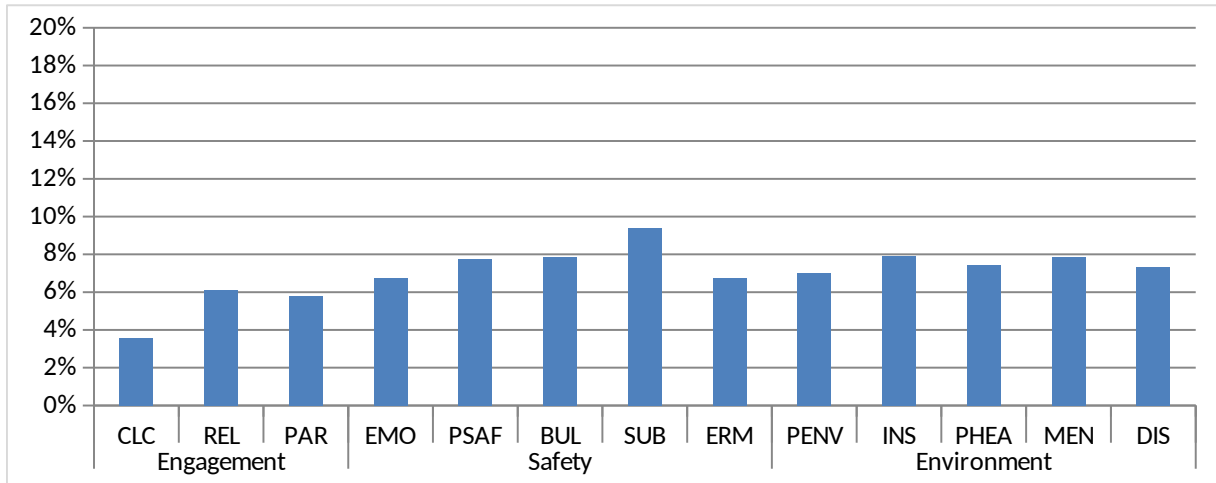
Similar to the student, instructional staff, and noninstructional staff surveys, for each item, the item nonresponse rate (omitted or not reached) and the percentage of responses in each category, factor loading to the underlying construct, point-polyserial correlation with the total raw score, and infit/outfit values were checked using the criteria in table 4.

#### Item missing rate

The item nonresponse rate ranged from 1.2 to 10.7 percent, with an average of 7.0 percent. Respondents failing to finish the survey did not seem to be as serious a problem as in the staff surveys (see figure 4). The nonresponse rate for each item can be found in appendix table A-4.



Figure 4. Average nonresponse rate by domain and topic in the EDSCLS 2015 pilot parent survey



SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

Two items had item nonresponse rates higher than 10 percent and were flagged, as shown in table 30.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

Table 30. Items flagged due to high nonresponse rates in the EDSCLS 2015 pilot parent survey

Variable name	Description	INR
Psafsub41b	At this school, how much of a problem is student use of electronic cigarettes? <sup>1</sup>	10.7%
Psafsub41	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>1</sup>	10.3%

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Response variance

Among the 44 school climate items in the parent survey, none had 90 percent or more of the valid responses clustered in one response option. Therefore, no items were flagged due to low response variance. The percentage of responses ranged from 0 to 14.7 percent for the most negative option, from 0.9 to 45.5 percent for the somewhat negative option, from 16.7 to 66.2 percent for the somewhat positive option, and from 6.3 to 79.5 percent for the most positive option. The percentage of responses in each category, by item, can be found in appendix table B-4.

### Factor loadings

A confirmatory factor model assuming a single factor was fit to the items in each domain. Four items were flagged because they had a first-order factor loading less than 0.5 (see table 31). The complete factor loadings can be found in appendix table C-4.

Table 31. Item flagged due to low factor loadings in the EDSCLS 2015 pilot parent survey

Variable name	Description	Factor loading
PENGCLC66	Students who are "different" (e.g., different cultural background, religion, race, or sexual orientation) are not included in activities by other students. <sup>1</sup>	0.234
PSAFPSAF32	Racial/ethnic conflict among students is a problem at this school. <sup>1</sup>	0.497
PSAFPSAF33	Gang-related activity is a problem at this school. <sup>1</sup>	0.486
PSAFBUL39	This school has helped me be more aware of bullying and cyberbullying of students.	0.392

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Point-polyserial correlations

Point-polyserial correlations were computed for the items in each topic, except emergency readiness/management. The average point-polyserial correlation of all items was 0.543. Two items were flagged because their correlations were lower than 0.3, as shown in table 32. Point-polyserial correlations by item can be found in appendix table D-4.

Table 32. Items flagged by low point-polyserial correlations with other items in the same domain in the EDSCLS 2015 pilot parent survey

Variable name	Description	Point-polyserial
PENGCLC66	Students who are "different" (e.g., different cultural background, religion, race, or sexual orientation) are not included in activities by other students. <sup>1</sup>	0.129
PENVINS50	Attending school every day is important for my child to do well in his/her classes.	0.295

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Infit/outfit statistics

As shown in table 33, a total of 6 items were flagged because their infit or outfit statistics are out of the range of 0.7 to 1.3. A complete list of infit and outfit statistics for each item can be found in appendix table D-4.

Table 33. Items flagged by out-of-range infit or outfit statistics in the EDSCLS 2015 pilot parent survey

Variable name	Description	Infit	Outfit
PENGCLC66	Students who are "different" (e.g., different cultural background, religion, race, or sexual orientation) are not included in activities by other students. <sup>1</sup>	2.025	2.528
PENGREL13	I feel welcome at this school.	0.738	0.607
PSAFBUL39	This school has helped me be more aware of bullying and cyberbullying of students.	1.485	1.565
PENVPHEA55	Students have enough healthy food choices at this school.	1.401	1.483
PENVDIS59	When my child does something good at school, I usually hear about it from the school.	1.315	1.369
PENVDIS61C	Discipline is fair.	1.474	1.570

<sup>1</sup>This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

### Summary

Since the items did not confirm the unidimensionality of the construct for each domain using the parent survey data (see table 34) and the sample size did not meet the recommended level (500), scaling is not recommended for the parent survey. Upon review by the EDSCLS team, a total of four items were dropped either because the items were problematic in the analyses or because similar items were dropped in the other three surveys (see table 35).

Table 34. Model fit statistics by domain in the EDSCLS 2015 pilot parent survey

Domain	N	RMSEA	CFI	TLI
Engagement	241	0.116	0.939	0.950
Safety	229	0.206	0.872	0.892
Environment	226	0.161	0.899	0.913

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

Table 35. Flags and final decisions for school climate items in the EDSCLS 2015 pilot parent survey

Variable name	Description	Flags <sup>1</sup>	Decision <sup>2</sup>
PENGCLC5	This school provides instructional materials (e.g., textbooks, handouts) that reflect students' cultural background, ethnicity, and identity.		y
PENGCLC6	This school communicates how important it is to respect the practices of all cultures.		y
PENGCLC9	This school encourages students to take challenging classes no matter their race, ethnicity, nationality, and/or cultural background (e.g., honor level courses, gifted courses, AP or IB courses).		y
PENGCLC65	This school communicates how important it is to respect students of all sexual orientations.		y
PENGCLC66	Students who are "different" (e.g., different cultural background, religion, race, or sexual orientation) are not included in activities by other students. <sup>3</sup>	FL/PP/ IO	n
PENGREL10	This school helps me figure out what social and emotional skills my child needs to develop (e.g., self-control, problem solving, or getting along with others).		y
PENGREL11	At this school, my child feels he/she belongs.		y
PENGREL13	I feel welcome at this school.	IO	y
PENGREL15	This school encourages me to be an active partner in educating my child.		y
PENGREL16	I feel comfortable talking to someone at this school about my child's behavior.		y
PENGREL23	This school has quality programs for my child's talents, gifts, or special needs.		y
PENGREL25	This school promptly responds to my phone calls, messages, or e-mails.		y
PSAFEMO27	At this school, the staff really cares about my child.		y
PSAFEMO28	This school is a friendly place overall.		y
PSAFEMO29	Staff at this school care about what families think.		y
PSAFPSAF30	My child is safe at this school.		y
PSAFPSAF32	Racial/ethnic conflict among students is a problem at this school. <sup>3</sup>	FL	y
PSAFPSAF33	Gang-related activity is a problem at this school. <sup>3</sup>		n
PSAFPSAF34	Physical fighting between students is a problem at this school. <sup>3</sup>		y
PSAFBUL36	Bullying of students at school or school activities is a problem at this school. <sup>3</sup>		y
PSAFBUL37	Bullying of students via electronic means or devices is a problem at this school (cyberbullying). <sup>3</sup>		y
PSAFBUL39	This school has helped me be more aware of bullying and cyberbullying of students.	FL/IO	n
PSAFSUB40	At this school, how much of a problem is student drug use? <sup>3</sup>		y
PSAFSUB41B	At this school, how much of a problem is student use of electronic cigarettes? <sup>3</sup>	INR	y
PSAFSUB41	At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? <sup>3</sup>	INR	y

PSAFSUB42 At this school, how much of a problem is student alcohol use?<sup>3</sup> y

Table 35. Flags and final decisions for school climate items in the EDSCLS 2015 pilot parent survey - continued

Variable name	Description	Flags <sup>1</sup>	Decision <sup>2</sup>
PSAFERM44	This school notifies parents or guardians effectively in the case of a school-wide emergency.		y
PSAFERM45	This school takes effective measures to ensure the safety of students.		y
PSAFERM47	This school has made it clear to my child what he/she should do if there is an emergency, natural disaster (tornado, flood) or a dangerous situation (e.g., violent person on campus) during the school day.		y
PENVPEN48	This school looks clean and pleasant.		y
PENVPEN49	The school building is clean and well-maintained.		y
PENVINS50	Attending school every day is important for my child to do well in his/her classes.	PP	y
PENVINS51	This school has high expectations for students.		y
PENVINS52	This school sees me as a partner in my child's education.		y
PENVINS53	My child's teachers make themselves available to me.		y
PENVINS54	The programs and resources at this school are adequate to support students with special needs or disabilities.		y
PENVPHEA55	Students have enough healthy food choices at this school.	IO	y
PENVMEN57	This school provides high quality services to help students with social or emotional needs.		y
PENVMEN58	This school has enough programs that develop students' social and emotional skills (e.g., self-control, problem solving, or getting along with others).		y
PENVDIS59	When my child does something good at school, I usually hear about it from the school.	IO	y
PENVDIS60	This school communicates school policies and procedures clearly to parents or guardians.		y
PENVDIS61	School rules are applied equally to all students.		y
PENVDIS61B	School rules for behavior are strict.		n
PENVDIS61C	Discipline is fair.	IO	y

<sup>1</sup> The Flag column notations mean the following - FL: Flagged due to low factor loading; PP: Flagged due to low point-polyserial correlation; IO: Flagged due to out-of-range infit/outfit statistics.

<sup>2</sup> The Decision column notations mean the following - n: Item has been dropped; y: Item will be included as a standalone item.

<sup>3</sup> This item is negatively valenced and was reverse-coded in the analyses.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

## 5.2. Survey Platform

### 5.2.1. Technical issues and recommendations

Prior to the pilot test, AIR and Sanametrix conducted extensive testing of each tool and feature of the EDSCLS platform by performing simulations of data collections and report production on local servers. As

a result, the pilot test revealed that the most pervasive issues that arose dealt with site-specific complications and/or server compatibility. For example, the most common issue revolved around the e-mail dissemination of usernames, which was directly related to the setup of the mail server and the firewall settings of the host site and is not a factor that can be addressed through adjustments to the platform itself.

Based on the technical issues recorded by the EDSCS team, there were a total of 53 individual issues. Most of the EDSCS-specific issues were resolved through updating the platform source code. The site-specific issues, such as server or firewall incompatibility, were resolved by either switching to cloud-based data collections or using site-specific workarounds. Other issues were of a more isolated nature, ranging from requesting the address of the official EDSCS website where the platform could be downloaded to confirming platform features (e.g., teacher usernames are replaced with random numbers in the exported data files; case statuses are no longer available after a data collection is closed).

The six most common categories of issues are listed below, along with the recommendations made to address them:

- dissemination of log-in credentials
- generation of log-in credentials
- User Guide questions
- installation
- creation/modification of data collections
- survey collection set up at wrong level

### *Dissemination of log-in credentials*

There were 11 technical requests that fell under the category of “dissemination of log-in credentials.” This category encompassed difficulties with merging log-in credentials with e-mail addresses, importing the combined list into the platform, and using the platform to send the e-mail invitations.

Six issues were resolved by walking the survey administrator through the User Guide and identifying an error in their Excel files that contain usernames and e-mail addresses. The other five sites had unique issues, mostly due to mail server or firewall settings, that were resolved either by changing those unique settings or by moving to a cloud-based server approach.

### **Recommendation**

Update the User Guide to recommend manual dissemination of log-in credentials (in-person dissemination and by regular mail) for sites with servers and/or firewalls that preclude the EDSCS’s e-mail dissemination feature. Future version of the User Guide will include a taxonomy tree to help host sites assess the EDSCS compatibility of their existing IT systems. For example, sites conducting larger data collections, such as district- or state-wide EDSCS administrations, may want to consider a cloud-based server or a server at the state level that is capable of disseminating log-in credentials via e-mail.

### *Generation of log-in credentials*

There were nine technical requests that fell under the category of “generation of log-in credentials.” This category encompasses all issues related to creating and modifying lists of log-in credentials for each respondent group and exporting these lists from the EDSCLS platform.

Two issues arose at the first two sites that downloaded the EDSCLS platform and were resolved by updating the platform’s source code. Two more issues arose when the cloud-based server option was initially made available. These issues were resolved by adjusting the setting of the cloud server to allow a longer time for executing the function. The other five requests were addressed by assisting the administrator in identifying the relevant sections of the User Guide that contained the necessary information, and at times, working collaboratively with the administrator to review the instructions.

#### **Recommendation**

We do not expect any further platform updates will be needed in connection with the generation of log-in credentials, but we will add information to the released version to advise that if a cloud-based server approach is used, the settings may need to be adjusted to allow more time for executing this function.

### *User Guide questions*

There were seven questions received in connection with the User Guide. They asked about a range of topics, including where to find the User Guide, how long the surveys are, which parental consent forms to use, and how to change the parental consent form.

Among the six most frequent issues, this category was the easiest to address. All requests/questions were answered directly via phone and e-mail (for example, AIR sent the web link to the User Guide to three host sites). The most common issues were added to the Frequently Asked Questions (FAQs) section and other portions of the User Guide were edited for clarity.

#### **Recommendation**

Explore ways of ensuring that interested parties download the User Guide when they download the platform. This may involve combining the two into a single zip file or moving the User Guide download link on the EDSCLS website to a more prominent position (for example, by placing it next to the EDSCLS platform download link). We also recommend keeping the FAQs section of the User Guide as an HTML page directly displaying on the EDSCLS website and regularly updating FAQs based on future questions or feedback from EDSCLS users.

### *Installation*

There were six issues that arose concerning the installation of the EDSCLS platform.

Three of the issues involved questions about the EDSCLS compatibility of host sites’ IT systems and were resolved through technical support provided by the Help Desk. One site had to update its server, and the other two sites encountered insurmountable EDSCLS compatibility problems—neither site had a physical server and they were trying to install the platform on personal computers—and had to shift to cloud-based data collections.

## **Recommendation**

Develop multiple approaches to clarify the EDSCS specifications for server requirements and firewall settings. The requirements may need to be more prominently listed at the beginning of the Technical Guide and listed on the EDSCS website together with the platform download link. We have also planned to create a specifications taxonomy tree to help potential host sites determine their IT systems' EDSCS compatibility and the options they have for hosting the EDSCS.

### ***Creation/modification of data collections***

There were three issues regarding the creation and/or modification of data collections. This category encompassed the addition and removal of schools and districts from a data collection and the setup of the beginning and end dates of data collection windows.

One site had questions regarding how to alter the dates of the data collection window; this was resolved by e-mailing the site the excerpt from the User Guide detailing this procedure. The other two issues stemmed from unforeseen circumstances that were not addressed in the User Guide. One site had created a data collection and disseminated usernames for the wrong school, so AIR noted it and corrected the data files when they were received. The last site had questions about how to open a closed data collection, because it had announced an extension to its data collection but forgotten to extend the window in the platform. Because closed survey collections cannot be reopened, an impromptu workaround was crafted wherein a new data collection was started to act as an extension of the original data collection and the data files were later combined by AIR.

## **Recommendation**

With respect to the need to reopen closed data collections, the optimal solution would be to update the platform source code to allow for this feature. Since it is not possible given the current platform release schedule, we recommend including a “*Warning!*” note informing EDSCS users that data collection windows can be changed, but only before and during a data collection—when the day of the set end date elapses, that data collection is no longer accessible. We will also added workaround instructions for user who make this mistake—if a closed data collection needs to be reopened, users should start a new collection and combine the data files using the import survey results function. We also recommend updating the FAQs section of the User Guide to add this information.

### ***Survey collection set up at wrong level***

Three sites had set the level of their data collection in the EDSCS (i.e., school, district, or state) at an inappropriate level.

Two sites had difficulty deciding how to use the EDSCS to conduct surveys in multiple schools in multiple districts. Based upon conversations with the sites' survey administrators, one site decided to set itself at a state-level data collection and the other site set itself at the district level and customized the data collections by adding schools from another district. (AIR provided ad hoc instructions for adding new schools not included in the preloaded CCD school file in the platform.) Another site had difficulties due to user error—a district intending to survey two schools accidentally set itself up at the school level.



With the advice of AIR, the site generated more usernames to complete the data collection, and AIR parsed the data files based on the different survey start timestamps recorded in the platform.

### **Recommendation**

We will update the User Guide to further clarify the different levels of data collections to which local education agencies should set their data collections, depending on their circumstances and goals. We will add instructions to the User Guide on how to add a new school (that is one not included in the preloaded CCD school file) and a footnote that the procedure can also be used as a workaround if a live data collection is found to have been set at the incorrect level. We will also include in the guide a warning note to users to double-check the level of their data collection as it cannot be changed once the data collection has been created. We will also update the FAQs to include an excerpt on this issue.

### **5.2.2 Administration issues and recommendations**

Beginning in the first week of June, the EDSCS team conducted debriefing meetings with each pilot site. Based on conversations during the data collection and at the debriefing meetings, we learned that schools used both e-mails and printed copies to disseminate usernames, and that most of the schools used wired, rather than wireless, internet connections for data collection, which took place in a combination of classrooms, computer labs, and media centers. Most of the sites used the parental consent opt-out form to have permission for student participation. With the exception of one site, very few parents elected to opt-out their children. Students were offered testing accommodations (e.g., language translation help) upon request at several sites and there were no issues. Almost all sites commented that the guide was clear and that the proctor scripts and parental consent forms were extremely helpful.

The following were the primary administration issues:

- few parent surveys conducted in the EDSCS pilot test
- student questionnaire length and language difficulty
- data collection window
- user error
- pushback from parents and staff

#### ***Few parent surveys conducted in the EDSCS pilot test***

Many sites did not attempt to administer the parent survey. Debriefing meetings with the sites suggested that the brief preparation time prior to the data collection was a major obstacle in surveying their parent populations. Some host sites also mentioned being unsure of how to contact and administer the surveys to parents who did not have e-mail addresses or internet-capable devices, as they primarily contact their parents via phone. In the eight schools where parents were surveyed, log-in credentials were mailed or brought home by students. In the debriefing meetings, most host sites said they would consider conducting a parent survey in the future, but that it was not a priority issue this year.

## **Recommendation**

We used the collected parent survey data to evaluate the survey items. However, we were not able to construct any scales. Only eight of the 16 hosting sites attempted to administer the parent survey, suggesting low demand for the tool. When asked if they would consider administering it in the future, administrators indicated yes, but that it was not a priority. Low response rates among parents from participating sites also indicated that collecting high-quality national benchmark data via an internet-based platform for this respondent group would be uncommonly difficult. Given the paucity of education agencies in the pilot study interested in the parent data, the difficulty in administering the parent survey and the unlikelihood of obtaining representative data, we recommend that NCES consider not administering it in the national benchmark study. However, we recommend keeping the parent survey in the final release of the EDSCS platform for schools that may have the means and resources to conduct it.

### *Student questionnaire length and language difficulty*

Four pilot sites commented on the length of the student questionnaires and/or the difficulty of the language. Although most students were able to complete the survey in a single class period, it was not uncommon for some students to take longer, especially for those schools where a class period was only 40 minutes long. Some principals struggled to justify the student survey because it required the length of at least one class period to conduct, plus more time for slower students. Some proctors (at three sites) also reported that some of the vocabulary was challenging, especially for their younger students, contributing to the length of the survey. In particular, the word “adequate” proved to be problematic.

Most sites adapted to the problem by allowing students to stay late to finish their surveys. One site used the PINs to provide students a chance to finish their surveys on the scheduled make-up day. One site’s schedule was unable to provide either of the above accommodations, so students there simply had to complete as much of the survey as they could in a single session.

## **Recommendation**

We have analyzed the timing data recorded by the EDSCS platform. On average, 85 percent of students could complete 32.4 items in 10 minutes. In order to limit the student survey to 25 minutes with at least an 85 percent item response rate, we have reduced the total number of items in the student survey (based on content evaluation and item analysis) to 74 items<sup>10</sup>, paying particularly close attention to the value and performance of linguistically challenging items.

### *Data collection window*

Four sites reported difficulty in conducting the student survey within a one-month window, particularly as legally mandated standardized testing is under way in April and May. Many of the resources needed for a modern universal data collection like the EDSCS (computer labs, administrative manpower, etc.) were already under strain due to these standardized tests.

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<sup>10</sup> The 74 items include 63 scale items, five stand-alone items, five demographic items, and one new item suggested by OSHS after the pilot test.

This problem was partially alleviated by implementing noncontiguous data collection windows wherein a site could, for example, administer the student survey for one week, pause data collection efforts for two weeks, and then restart and finish the survey. We also suggested that pilot sites use different data collection windows for middle schools and high schools to accommodate their different schedules. These solutions allowed the pilot sites to obtain as many responses as possible for the surveys they administered.

### **Recommendation**

We recommend adding instructions to the User Guide that detail the process for setting up longer data collection windows to allow accommodations for the different schedules that schools may have.

We also recommend that sites avoid conducting the survey at the same time as state testing. Both efforts aim to measure school characteristics that have matured over a school year, but the pilot test results suggest that a significant number of schools do not have the administrative and/or technological capacity to conduct concurrent universal data collections. As such, we will recommend that sites carefully examine the calendar of activities for all participating schools and select the optimal time for administration.

### *User error*

Human error on the part of survey administrators and respondents was also reported throughout the pilot test and at the debriefing meetings. For the survey administrators, errors included sending log-in credentials to the wrong respondents (e.g., sending principal usernames to noninstructional staff and on one occasion to the wrong school) or with erroneous information (e.g., using “testing” as the subject of invitation e-mails). Some forgot to extend their data collection windows or set their administration at the wrong level of data collection, as mentioned above. Some administrator errors were addressed through work-arounds used during the pilot or through data cleaning performed by AIR staff after receiving the pilot test raw data. For respondents, at least two sites reported that their students and/or staff did not write down their PINs and therefore could not complete the surveys later, if they did not finish it in the first session.

### **Recommendation**

The beta test component of the pilot test was very productive at identifying common errors and the effects of those errors. We recommend applying this information by adding “*Warning!*” notes to the User Guide where people most often strayed from the instructions, such as the section detailing the need and importance of informing respondents to write down their PINs. We also recommend updating the FAQs based upon the most common errors and the best resolutions. We may also explore the possibility of adding pop-up warnings to the dashboard and surveys in places where administrators or respondents have to make decisions that cannot be reversed.

### *Pushback from parents and staff*

While opt-out was minimal across the pilot sites as a whole for the student survey, one site experienced significant “opt-out” movements, particularly in response to the Common Core tests, but also in relation to standardized data collections in general. Survey coordinators and administrators from several sites

reported difficulty in convincing parents/staff—some of whom were suspicious of “data mining”— to let their children/students participate or to participate themselves. Some staff suspected that their responses could be connected back to them, despite reassurances to the contrary. To emphasize their commitment to anonymity of responses, some administrators opted to print out the credentials and let staff select their own, thus preventing administrators from ever being able to connect log-in credentials to survey respondents. These additional steps to ensure data confidentiality were found to be effective at convincing skeptical respondents. Administrators also furnished the parents and staff with all the survey items and the EDSCS flyer.

### **Recommendation**

We recommend updating the User Guide with the confidentiality-proving tactics employed by host sites in the pilot test. We may also explore producing a visual showing the stage at which personally identifiable information (PII) is divorced from the datasets produced by the EDSCS for staff and parent surveys.

## **6. Conclusion**

In general, the pilot test results supported the design of the EDSCS items and platform. Except for the physical health topic for the student survey, we were able to construct scales for all topics and domains we had planned for the student, instructional staff, and noninstructional staff surveys. However, we were not able to construct scales for the parent survey due to the limited data. We will use Rasch scoring to estimate school climate scores and provide a report on the scores. Based on the feedback from the field, the EDSCS platform was updated during the pilot test to resolve some reported issues. Currently, we are working on further minor improvements and updates to be ready for the fall release of the platform. The User Guide accompanying the platform will also be updated, based on the recommendations discussed above, to provide better support to educational entities when they choose to use the EDSCS platform.

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Appendix

Table A-1. Nonresponse rates, by item in the student survey: 2015.....	62
Table A-2. Nonresponse rates, by item in the instructional staff survey: 2015.....	63
Table A-3. Nonresponse rates, by item in the noninstructional staff survey: 2015.....	64
Table A-4. Nonresponse rates, by item in the parent survey: 2015.....	65
Table B-1. Percentage of respondents in each response category, by item in the student survey: 2015..	66
Table B-2. Percentage of respondents in each response category, by item in the instructional staff survey: 2015.....	68
Table B-3. Percentage of respondents in each response category, by item in the noninstructional staff survey: 2015.....	70
Table B-4. Percentage of respondents in each response category, by item in the parent survey: 2015..	72
Table C-1. Confirmatory factor analysis, factor loading, by domain and item (all items) in the student survey: 2015.....	73
Table C-2. Confirmatory factor analysis, factor loading, by domain and item (all items) in the instructional staff survey: 2015.....	75
Table C-3. Confirmatory factor analysis, factor loading, by domain and item (all items) in the noninstructional staff survey: 2015.....	77
Table C-4. Confirmatory factor analysis, factor loading, by domain and item (all items) in the parent survey: 2015.....	79
Table D-1. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the student survey: 2015.....	80
Table D-2. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the instructional staff survey: 2015.....	82
Table D-3. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the noninstructional staff survey: 2015.....	83
Table D-4. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the parent survey: 2015.....	84
Table E-1. Confirmatory factor analysis of scale items, factor loading, by domain and item in the pilot student survey: 2015.....	85
Table E-2. Confirmatory factor analysis of scale items, factor loading, by domain and item in the instructional staff survey: 2015.....	86
Table E-3. Confirmatory factor analysis of scale items, factor loading, by domain and item in the noninstructional staff survey: 2015.....	87

Table F-1. Infit, outfit, and point-polyserial statistics, by domain and item (scale items) in the student survey: 2015.....	88
Table F-2. Infit, outfit, and point-polyserial statistics, by domain and item (scale items) in the instructional staff survey: 2015.....	89
Table F-3. Infit, outfit, and point-polyserial statistics, by domain and item (scale items) in the noninstructional staff survey: 2015.....	90
Table G-1. DIF measures, by item (scale items) and respondent group in the student survey: 2015.....	91
Table G-2. DIF measures, by item (scale items) and respondent group in the instructional staff survey: 2015.....	93
Table G-3. DIF measures, by item (scale items) and respondent group in the noninstructional staff survey: 2015.....	95

**Table A-1. Nonresponse rates, by item in the student survey: 2015**

<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>
SENGCLC1	2.4%	SSAFEMO50	2.0%	SSAFBUL82	5.2%	SENVINS117	3.4%
SENGCLC2	2.3%	SSAFEMO51	2.6%	SSAFBUL83	5.2%	SENVINS119	3.6%
SENGCLC3	3.1%	SSAFEMO52	2.6%	SSAFSUB84	4.8%	SENVINS121	3.5%
SENGCLC4	2.7%	SSAFEMO53	2.8%	SSAFSUB85B	5.0%	SENVINS122	4.4%
SENGCLC5	3.8%	SSAFEMO54	2.8%	SSAFSUB85	5.4%	SENVPHEA123	3.5%
SENGCLC6	3.3%	SSAFEMO55	2.8%	SSAFSUB86	5.2%	SENVPHEA124	3.7%
SENGCLC7	3.2%	SSAFEMO56	2.9%	SSAFSUB87	5.4%	SENVPHEA125	3.7%
SENGCLC8	3.6%	SSAFEMO57	3.0%	SSAFSUB88	5.9%	SENVPHEA126	3.8%
SENGREL9	3.6%	SSAFEMO58	3.3%	SSAFSUB89	5.9%	SENVPHEA127	3.7%
SENGREL10	3.7%	SSAFPSAF59	3.1%	SSAFSUB90	5.9%	SENVPHEA128	3.8%
SENGREL11	3.8%	SSAFPSAF60	3.0%	SSAFSUB91	5.9%	SENVPHEA129	4.0%
SENGREL12	3.8%	SSAFPSAF61	3.0%	SSAFSUB92	6.3%	SENVMEN130	4.1%
SENGREL13	3.9%	SSAFPSAF62	3.3%	SSAFSUB93	6.3%	SENVMEN131	4.4%
SENGREL14	3.9%	SSAFPSAF63	3.1%	SSAFSUB94	6.3%	SENVMEN132	4.4%
SENGREL15	4.2%	SSAFPSAF65	3.6%	SSAFERM96	6.2%	SENVMEN133	4.9%
SENGREL153	2.1%	SSAFPSAF66	3.6%	SSAFERM97	6.5%	SENVMEN134	4.8%
SENGREL16	4.2%	SSAFPSAF67	3.6%	SSAFERM98	6.5%	SENVMEN135	4.9%
SENGREL17	4.6%	SSAFPSAF68	3.6%	SENVPENV99	2.1%	SENVMEN136	5.1%
SENGREL18	4.5%	SSAFPSAF69	3.8%	SENVPENV100	1.9%	SENVMEN137	5.3%
SENGREL19	4.4%	SSAFPSAF70	3.9%	SENVPENV101	2.4%	SENVDIS138	5.2%
SENGREL20	4.7%	SSAFPSAF71	3.7%	SENVPENV102	2.2%	SENVDIS139	5.5%
SENGREL21	4.8%	SSAFBUL72	3.9%	SENVPENV103	2.4%	SENVDIS140	5.4%
SENGREL22	4.8%	SSAFBUL74	4.1%	SENVPENV104	2.5%	SENVDIS141	5.8%
SENGREL26	4.9%	SSAFBUL75	4.2%	SENVPENV105	2.6%	SENVDIS142	5.8%
SENGREL29	4.9%	SSAFBUL76	4.2%	SENVPENV106	2.9%	SENVDIS143	5.8%
SENGPAR43	5.1%	SSAFBUL77	2.0%	SENVPENV107	2.9%	SENVDIS144	6.4%
SENGPAR44	5.1%	SSAFBUL77B	2.1%	SENVINS108	2.7%	SENVDIS145	6.5%
SENGPAR45	5.6%	SSAFBUL81	4.4%	SENVINS109	2.8%	SENVDIS146	6.8%
SENGPAR46	5.3%	SSAFBUL73	4.1%	SENVINS111	3.1%	SENVDIS147	6.4%
SENGPAR47	5.3%	SSAFBUL78	4.1%	SENVINS113	3.3%	SENVDIS147B	6.5%
SENGPAR48	5.5%	SSAFBUL79	5.0%	SENVINS114	3.6%	SENVDIS147C	6.6%
SSAFEMO49	2.0%	SSAFBUL80	4.9%	SENVINS115	3.3%		

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.



**Table A-2. Nonresponse rates, by item in the instructional staff survey: 2015**

Variable name	INR	Variable name	INR	Variable name	INR	Variable name	INR
IENGCLC1	0.8%	ISAFEMO52	4.5%	ISAFSUB83	6.1%	IENVINS112	9.7%
IENGCLC2	0.4%	ISAFEMO53	4.8%	ISAFSUB84B	7.0%	IENVINS114	9.0%
IENGCLC3	2.0%	ISAFEMO54	4.8%	ISAFSUB84	7.0%	IENVINS115	9.2%
IENGCLC4	2.1%	ISAFEMO55	4.9%	ISAFSUB85	7.3%	IENVINS116	9.2%
IENGCLC5	1.4%	ISAFEMO56	5.0%	ISAFSUB86	9.2%	IENVPHEA117	9.7%
IENGCLC6	1.6%	ISAFEMO57	4.8%	ISAFSUB87	9.6%	IENVPHEA119	10.5%
IENGCLC7	2.2%	ISAFEMO58	4.9%	ISAFSUB88	10.5%	IENVPHEA120	10.8%
IENGCLC8	3.6%	ISAFPSAF59	4.5%	ISAFSUB89	13.0%	IENVPHEA121	11.2%
IENGREL9	2.5%	ISAFPSAF60	4.1%	ISAFSUB90	11.1%	IENVPHEA122	11.0%
IENGREL10	2.8%	ISAFPSAF61	5.0%	ISAFSUB91	11.3%	IENVPHEA138	11.0%
IENGREL11	2.8%	ISAFPSAF62	4.7%	ISAFERM92	7.0%	IENVMEN123	9.9%
IENGREL12	2.4%	ISAFPSAF63	7.0%	ISAFERM93	9.1%	IENVMEN124	10.3%
IENGREL13	3.4%	ISAFPSAF64	5.3%	ISAFERM94	8.5%	IENVMEN125	11.7%
IENGREL14	3.3%	ISAFPSAF65	5.8%	ISAFERM95	8.2%	IENVMEN126	11.7%
IENGREL15	2.9%	ISAFPSAF66	4.9%	IENVPENV96	8.2%	IENVMEN127	11.8%
IENGP29	2.7%	ISAFPSAF67	5.0%	IENVPENV97	8.2%	IENVMEN128	12.0%
IENGP31	2.9%	ISAFBUL68	5.3%	IENVPENV98	8.6%	IENVMEN137	12.2%
IENGP32	3.9%	ISAFBUL69	6.5%	IENVPENV99	7.9%	IENVDIS129	11.8%
IENGP33	3.7%	ISAFBUL70	5.6%	IENVPENV100	8.1%	IENVDIS130	10.7%
IENGP35	3.9%	ISAFBUL71	6.2%	IENVPENV101	9.2%	IENVDIS131	11.5%
IENGP36	3.9%	ISAFBUL72	5.3%	IENVPENV102	9.0%	IENVDIS132	11.7%
IENGP37	5.3%	ISAFBUL73	5.8%	IENVPENV103	8.6%	IENVDIS133	12.8%
IENGP39	5.0%	ISAFBUL74	5.8%	IENVINS104	9.0%	IENVDIS134	11.7%
IENGP42	5.2%	ISAFBUL75	5.9%	IENVINS105	9.3%	IENVDIS134B	12.6%
IENGP48	3.7%	ISAFBUL79	5.8%	IENVINS106	8.9%	IENVDIS134C	12.7%
ISAFEMO49	4.0%	ISAFBUL80	5.8%	IENVINS107	9.6%	IENVDIS135	12.4%
ISAFEMO50	4.3%	ISAFBUL81	5.9%	IENVINS108	9.5%	IENVDIS136	12.2%
ISAFEMO51	4.8%	ISAFBUL82	5.9%	IENVINS110	9.1%		

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table A-3. Nonresponse rates, by item in the noninstructional staff survey: 2015**

<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>
NENGCLC1	0.9%	NENGPARG7	4.8%	NSAFBUL76	7.0%	NENVINS108	12.6%
NENGCLC2	0.9%	NSAFEMO48	6.5%	NSAFBUL77	7.0%	NENVINS109	11.7%
NENGCLC3	2.2%	NSAFEMO49	6.1%	NSAFBUL78	8.7%	NENVINS110	13.0%
NENGCLC4	6.1%	NSAFEMO50	5.7%	NSAFBUL79	7.8%	NENVINS111	10.9%
NENGCLC5	1.7%	NSAFEMO51	3.9%	NSAFSUB80	9.1%	NENVINS140	11.7%
NENGCLC6	1.7%	NSAFEMO52	4.8%	NSAFSUB81B	9.1%	NENVINS141	11.3%
NENGCLC7	4.8%	NSAFEMO53	5.7%	NSAFSUB81	9.1%	NENVPHEA114	11.7%
NENGCLC8	4.3%	NSAFEMO54	7.0%	NSAFSUB82	10.9%	NENVPHEA115	13.5%
NENGREL16	6.5%	NSAFEMO55	5.7%	NSAFSUB83	12.6%	NENVPHEA117	12.2%
NENGREL17	5.2%	NSAFEMO147	7.0%	NSAFSUB84	10.9%	NENVPHEA118	12.2%
NENGREL18	3.9%	NSAFEMO148	6.1%	NSAFSUB85	12.6%	NENVPHEA119	12.2%
NENGREL19	4.3%	NSAFPSAF56	5.7%	NSAFSUB86	13.9%	NENVMEN122	16.5%
NENGREL21	2.6%	NSAFPSAF57	5.2%	NSAFSUB87	13.0%	NENVMEN123	14.8%
NENGREL24	3.0%	NSAFPSAF58	5.7%	NSAFSUB88	15.2%	NENVMEN124	15.7%
NENGREL25	3.9%	NSAFPSAF59	5.2%	NSAFERM89	8.3%	NENVMEN125	17.4%
NENGREL26	3.5%	NSAFPSAF60	7.8%	NSAFERM90	10.0%	NENVMEN126	17.0%
NENGREL27	4.8%	NSAFPSAF61	7.0%	NSAFERM91	8.7%	NENVMEN127	16.1%
NENGREL29	4.8%	NSAFPSAF62	8.7%	NSAFERM92	8.7%	NENVDIS130	13.0%
NENGREL30	3.9%	NSAFPSAF63	7.0%	NENVPENV96	11.3%	NENVDIS131	13.9%
NENGPARG33	5.7%	NSAFPSAF64	6.5%	NENVPENV97	10.9%	NENVDIS132	13.5%
NENGPARG34	6.5%	NSAFBUL65	6.1%	NENVPENV98	10.0%	NENVDIS133	13.9%
NENGPARG35	5.2%	NSAFBUL66	8.7%	NENVPENV99	9.1%	NENVDIS134	13.9%
NENGPARG37	6.5%	NSAFBUL67	6.5%	NENVPENV100	10.9%	NENVDIS134B	15.2%
NENGPARG38	7.4%	NSAFBUL68	8.3%	NENVPENV101	9.6%	NENVDIS134C	13.9%
NENGPARG39	6.5%	NSAFBUL69	6.5%	NENVPENV102	9.1%	NENVDIS135	17.4%
NENGPARG41	5.7%	NSAFBUL70	8.7%	NENVPENV103	9.6%	NENVDIS136	15.7%
NENGPARG43	7.8%	NSAFBUL71	8.3%	NENVPENV104	10.0%	NENVDIS137	15.2%
NENGPARG44	7.4%	NSAFBUL72	7.8%	NENVINS107	15.2%		

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table A-4. Nonresponse rates, by item in the parent survey: 2015**

<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>	<b>Variable name</b>	<b>INR</b>
PENGCLC5	1.2%	PENGREL25	5.8%	PENVDIS59	7.0%	PSAFPSAF34	7.9%
PENGCLC6	1.2%	PENVPENV48	7.0%	PENVDIS60	7.4%	PSAFBUL36	7.4%
PENGCLC9	4.1%	PENVPENV49	7.0%	PENVDIS61	7.0%	PSAFBUL37	8.7%
PENGCLC65	5.8%	PENVINS50	7.4%	PENVDIS61C	7.4%	PSAFBUL39	7.4%
PENGCLC66	5.4%	PENVINS51	7.9%	PENVDIS61B	7.9%	PSAFSUB40	9.5%
PENGREL10	6.2%	PENVINS52	6.6%	PSAFEMO27	6.2%	PSAFSUB41B	10.7%
PENGREL11	5.8%	PENVINS53	8.3%	PSAFEMO28	6.6%	PSAFSUB41	10.3%
PENGREL13	6.2%	PENVINS54	9.5%	PSAFEMO29	7.4%	PSAFSUB42	9.5%
PENGREL15	6.6%	PENVPHEA55	7.4%	PSAFPSAF30	7.0%	PSAFERM44	7.0%
PENGREL16	5.8%	PENVMEN57	8.3%	PSAFPSAF32	9.1%	PSAFERM45	6.6%
PENGREL23	5.8%	PENVMEN58	7.4%	PSAFPSAF33	7.0%	PSAFERM47	6.6%

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table B-1. Percentage of respondents in each response category, by item in the student survey: 2015**

<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>	<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>
SENGCLC1	15.4%	24.3%	39.2%	21.1%	SSAFBUL82	18.5%	31.6%	34.8%	15.1%
SENGCLC2	12.8%	24.9%	41.9%	20.4%	SSAFBUL83	26.9%	36.2%	26.9%	10.1%
SENGCLC3	6.7%	18.6%	53.3%	21.4%	SSAFSUB84	17.5%	20.9%	23.6%	38.0%
SENGCLC4	13.6%	27.9%	39.8%	18.7%	SSAFSUB85B	10.3%	11.9%	17.5%	60.4%
SENGCLC5	5.8%	17.9%	56.8%	19.5%	SSAFSUB85	16.5%	12.9%	19.8%	50.7%
SENGCLC6	8.4%	19.6%	38.6%	33.4%	SSAFSUB86	14.2%	14.0%	19.0%	52.8%
SENGCLC7	6.5%	16.4%	52.3%	24.8%	SSAFSUB87	10.8%	20.0%	31.5%	37.7%
SENGCLC8	5.5%	14.7%	55.4%	24.4%	SSAFSUB88	8.8%	20.4%	33.2%	37.5%
SENGREL9	16.8%	30.5%	40.3%	12.5%	SSAFSUB89	11.0%	21.0%	30.5%	37.6%
SENGREL10	9.1%	20.9%	48.8%	21.1%	SSAFSUB90	10.0%	22.8%	29.6%	37.7%
SENGREL11	7.9%	22.7%	52.0%	17.4%	SSAFSUB91	10.9%	22.9%	31.4%	34.8%
SENGREL12	10.9%	26.7%	46.6%	15.8%	SSAFSUB92	8.1%	18.4%	33.2%	40.3%
SENGREL13	14.3%	31.3%	44.1%	10.3%	SSAFSUB93	14.1%	27.8%	27.6%	30.5%
SENGREL14	8.4%	15.5%	53.6%	22.5%	SSAFSUB94	16.2%	29.8%	24.9%	29.1%
SENGREL15	6.0%	12.5%	55.1%	26.4%	SSAFERM96	8.3%	10.8%	32.2%	48.7%
SENGREL15 3	7.0%	15.1%	55.4%	22.4%	SSAFERM97	7.1%	10.5%	36.7%	45.8%
SENGREL16	8.1%	21.8%	52.4%	17.6%	SSAFERM98	9.6%	21.0%	44.9%	24.4%
SENGREL17	9.6%	22.9%	50.9%	16.7%	SENVPENV99	9.0%	20.8%	54.9%	15.3%
SENGREL18	11.2%	18.5%	49.9%	20.4%	SENVPENV100	32.3%	33.9%	27.6%	6.1%
SENGREL19	8.7%	20.4%	55.2%	15.6%	SENVPENV101	11.8%	24.8%	50.9%	12.5%
SENGREL20	16.1%	35.1%	40.0%	8.9%	SENVPENV102	24.3%	38.4%	29.4%	7.9%
SENGREL21	11.2%	27.7%	50.6%	10.4%	SENVPENV103	8.4%	17.9%	57.2%	16.6%
SENGREL22	17.8%	37.1%	37.0%	8.0%	SENVPENV104	19.5%	30.8%	39.4%	10.2%
SENGREL26	7.8%	23.9%	50.8%	17.5%	SENVPENV105	7.8%	20.5%	56.6%	15.1%
SENGREL29	5.1%	10.9%	56.0%	28.1%	SENVPENV106	8.8%	22.5%	52.3%	16.5%
SENGPAR43	22.2%	33.8%	33.3%	10.6%	SENVPENV107	15.5%	35.7%	38.0%	10.7%
SENGPAR44	12.9%	23.7%	41.0%	22.4%	SENVINS108	33.2%	41.1%	20.7%	5.0%
SENGPAR45	11.3%	23.8%	40.0%	24.9%	SENVINS109	28.0%	34.8%	29.0%	8.2%
SENGPAR46	15.8%	30.2%	41.2%	12.9%	SENVINS111	10.8%	23.6%	46.2%	19.4%
SENGPAR47	4.6%	9.7%	48.9%	36.8%	SENVINS113	8.8%	18.4%	54.5%	18.3%
SENGPAR48	6.2%	14.1%	56.4%	23.3%	SENVINS114	11.5%	28.7%	45.7%	14.1%
SSAFEMO49	13.0%	31.9%	48.6%	6.5%	SENVINS115	7.4%	14.7%	47.4%	30.5%
SSAFEMO50	4.8%	13.5%	54.7%	27.0%	SENVINS117	5.3%	11.3%	52.7%	30.7%
SSAFEMO51	17.5%	37.8%	34.9%	9.8%	SENVINS119	5.6%	16.4%	53.2%	24.7%
SSAFEMO52	20.6%	41.2%	30.8%	7.5%	SENVINS121	2.7%	6.0%	45.0%	46.4%
SSAFEMO53	15.0%	37.2%	40.3%	7.5%	SENVINS122	4.1%	9.7%	53.9%	32.3%
SSAFEMO54	14.1%	16.2%	45.8%	23.9%	SENVPHEA123	14.4%	18.6%	32.6%	34.4%
SSAFEMO55	9.7%	21.4%	48.5%	20.5%	SENVPHEA124	33.1%	23.8%	26.3%	16.9%
SSAFEMO56	10.6%	19.6%	48.9%	20.9%	SENVPHEA125	27.4%	19.2%	21.7%	31.7%
SSAFEMO57	8.7%	16.3%	52.5%	22.6%	SENVPHEA126	23.3%	29.6%	32.5%	14.7%
SSAFEMO58	12.6%	22.6%	48.2%	16.5%	SENVPHEA127	10.7%	16.8%	27.2%	45.3%

**Table B-1. Percentage of respondents in each response category, by item in the student survey: 2015 - continued**

<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>	<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>
SSAFPSAF59	10.6%	18.2%	50.4%	20.7%	SENVPHEA128	16.5%	12.7%	20.8%	50.0%
SSAFPSAF60	6.4%	12.5%	57.0%	24.2%	SENVPHEA129	36.4%	16.5%	20.2%	26.8%
SSAFPSAF61	15.7%	24.1%	39.9%	20.3%	SENVMEN130	9.9%	18.8%	48.7%	22.7%
SSAFPSAF62	14.1%	28.7%	41.5%	15.7%	SENVMEN131	6.1%	15.7%	55.8%	22.4%
SSAFPSAF63	4.3%	7.7%	37.8%	50.2%	SENVMEN132	9.2%	18.3%	50.2%	22.2%
SSAFPSAF65	5.4%	15.0%	35.5%	44.1%	SENVMEN133	10.8%	20.7%	47.4%	21.1%
SSAFPSAF66	11.3%	23.4%	35.9%	29.3%	SENVMEN134	41.1%	37.5%	16.2%	5.1%
SSAFPSAF67	18.5%	35.7%	30.1%	15.7%	SENVMEN135	16.5%	40.2%	33.8%	9.5%
SSAFPSAF68	26.4%	33.7%	25.3%	14.6%	SENVMEN136	32.8%	39.5%	19.6%	8.0%
SSAFPSAF69	18.0%	35.0%	33.8%	13.2%	SENVMEN137	27.8%	37.6%	28.1%	6.5%
SSAFPSAF70	18.1%	35.6%	32.5%	13.8%	SENVDIS138	11.8%	23.9%	45.8%	18.6%
SSAFPSAF71	21.5%	33.1%	35.3%	10.2%	SENVDIS139	10.0%	23.5%	51.3%	15.2%
SSAFBUL72	27.3%	38.2%	26.7%	7.7%	SENVDIS140	5.0%	12.2%	51.1%	31.7%
SSAFBUL74	14.4%	23.2%	38.8%	23.6%	SENVDIS141	12.3%	26.2%	44.2%	17.4%
SSAFBUL75	11.8%	20.7%	41.6%	25.9%	SENVDIS142	5.1%	12.4%	57.8%	24.7%
SSAFBUL76	16.6%	27.2%	33.5%	22.7%	SENVDIS143	12.2%	25.3%	44.5%	18.0%
SSAFBUL77	19.0%	32.3%	34.2%	14.4%	SENVDIS144	8.2%	19.2%	53.0%	19.6%
SSAFBUL77B	17.5%	29.3%	37.8%	15.3%	SENVDIS145	8.3%	19.6%	52.8%	19.2%
SSAFBUL81	27.5%	43.2%	20.8%	8.5%	SENVDIS146	10.8%	26.6%	46.9%	15.8%
SSAFBUL73	20.3%	32.0%	36.7%	11.0%	SENVDIS147	15.7%	24.4%	39.5%	20.4%
SSAFBUL78	8.4%	16.2%	39.3%	36.1%	SENVDIS147B	8.1%	26.6%	44.1%	21.2%
SSAFBUL79	15.1%	37.3%	35.6%	11.9%	SENVDIS147C	15.5%	25.2%	44.4%	15.0%
SSAFBUL80	16.0%	32.4%	39.0%	12.6%					

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table B-2. Percentage of respondents in each response category, by item in the instructional staff survey: 2015**

<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>	<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>
IENGCLC1	2.2%	12.5%	54.1%	31.2%	ISAFSUB83	5.6%	25.1%	34.8%	34.5%
IENGCLC2	2.9%	12.8%	40.7%	43.5%	ISAFSUB84B	1.5%	6.9%	18.9%	72.7%
IENGCLC3	1.7%	9.8%	43.4%	45.1%	ISAFSUB84	7.7%	13.5%	32.3%	46.5%
IENGCLC4	1.9%	19.3%	60.0%	18.8%	ISAFSUB85	5.9%	17.3%	28.7%	48.2%
IENGCLC5	1.0%	7.5%	49.5%	42.0%	ISAFSUB86	3.4%	26.8%	54.0%	15.7%
IENGCLC6	0.6%	8.1%	49.0%	42.3%	ISAFSUB87	3.3%	27.2%	55.5%	14.0%
IENGCLC7	4.9%	24.3%	47.3%	23.5%	ISAFSUB88	2.9%	20.7%	58.5%	17.9%
IENGCLC8	2.6%	14.2%	61.2%	21.9%	ISAFSUB89	3.6%	11.8%	59.4%	25.2%
IENGREL9	1.1%	10.6%	62.2%	26.0%	ISAFSUB90	2.3%	21.5%	60.9%	15.3%
IENGREL10	1.0%	15.6%	58.5%	24.8%	ISAFSUB91	2.3%	28.1%	54.1%	15.4%
IENGREL11	0.8%	10.6%	59.8%	28.8%	ISAFERM92	0.7%	2.4%	40.3%	56.7%
IENGREL12	0.4%	19.1%	62.8%	17.6%	ISAFERM93	2.5%	12.7%	42.7%	42.0%
IENGREL13	0.5%	15.6%	54.5%	29.3%	ISAFERM94	1.3%	9.4%	41.7%	47.6%
IENGREL14	3.4%	25.6%	50.0%	20.9%	ISAFERM95	1.4%	7.5%	40.6%	50.5%
IENGREL15	0.9%	7.1%	56.7%	35.3%	IENVPENV96	0.8%	8.9%	51.3%	39.0%
IENGP29	4.9%	21.0%	52.9%	21.2%	IENVPENV97	2.5%	10.9%	48.0%	38.6%
IENGP31	6.2%	27.3%	47.2%	19.3%	IENVPENV98	2.4%	11.5%	51.3%	34.8%
IENGP32	6.0%	39.4%	44.9%	9.7%	IENVPENV99	9.1%	25.4%	56.8%	8.7%
IENGP33	4.2%	32.1%	50.1%	13.6%	IENVPENV100	6.1%	19.2%	50.4%	24.3%
IENGP35	8.5%	26.5%	43.5%	21.5%	IENVPENV101	6.0%	15.2%	56.9%	22.0%
IENGP36	9.4%	29.1%	43.8%	17.6%	IENVPENV102	6.4%	18.1%	54.8%	20.7%
IENGP37	5.1%	31.7%	49.8%	13.4%	IENVPENV103	9.7%	21.3%	49.9%	19.2%
IENGP39	2.8%	26.6%	57.9%	12.7%	IENVINS104	1.3%	11.1%	63.7%	23.9%
IENGP42	3.1%	28.5%	54.3%	14.1%	IENVINS105	12.1%	35.1%	45.5%	7.3%
IENGP48	1.0%	6.2%	46.1%	46.7%	IENVINS106	1.1%	10.2%	71.3%	17.5%
ISAFEMO49	1.7%	10.3%	56.1%	31.9%	IENVINS107	8.1%	33.4%	48.3%	10.1%
ISAFEMO50	2.4%	14.5%	67.8%	15.3%	IENVINS108	2.3%	15.4%	66.9%	15.5%
ISAFEMO51	4.3%	14.8%	52.7%	28.1%	IENVINS110	1.2%	12.0%	57.6%	29.2%
ISAFEMO52	2.4%	10.1%	52.8%	34.6%	IENVINS112	1.6%	17.7%	60.6%	20.1%
ISAFEMO53	7.9%	20.8%	49.0%	22.2%	IENVINS114	1.7%	11.5%	59.7%	27.1%
ISAFEMO54	7.7%	18.6%	43.4%	30.3%	IENVINS115	0.8%	5.5%	60.5%	33.1%
ISAFEMO55	2.9%	16.2%	47.5%	33.5%	IENVINS116	3.5%	14.2%	54.8%	27.5%
ISAFEMO56	2.8%	8.7%	58.0%	30.5%	IENVPHEA117	1.7%	12.5%	65.8%	20.1%
ISAFEMO57	1.6%	8.8%	58.3%	31.3%	IENVPHEA119	3.0%	27.9%	52.0%	17.1%
ISAFEMO58	0.7%	10.2%	59.4%	29.7%	IENVPHEA120	3.7%	23.4%	55.9%	17.0%
ISAFPSAF59	1.3%	5.3%	51.9%	41.6%	IENVPHEA121	2.3%	19.4%	61.3%	17.0%
ISAFPSAF60	8.9%	25.8%	52.7%	12.5%	IENVPHEA122	3.3%	24.0%	57.5%	15.3%
ISAFPSAF61	4.5%	23.9%	53.6%	18.1%	IENVPHEA138	1.4%	16.7%	63.3%	18.6%
ISAFPSAF62	4.4%	22.0%	56.2%	17.3%	IENVMEN123	2.5%	12.4%	59.6%	25.6%
ISAFPSAF63	4.4%	19.4%	47.9%	28.3%	IENVMEN124	2.4%	14.7%	63.6%	19.3%
ISAFPSAF64	0.6%	7.3%	54.6%	37.4%	IENVMEN125	4.6%	26.2%	54.3%	14.9%
ISAFPSAF65	1.8%	12.9%	47.8%	37.4%	IENVMEN126	4.0%	26.6%	54.7%	14.7%
ISAFPSAF66	1.1%	5.9%	45.7%	47.4%	IENVMEN127	3.2%	22.9%	58.4%	15.4%
ISAFPSAF67	15.6%	30.9%	38.7%	14.8%	IENVMEN128	4.8%	35.5%	49.4%	10.3%
ISAFBUL68	12.6%	36.5%	44.8%	6.2%	IENVMEN137	3.9%	24.1%	57.6%	14.4%
ISAFBUL69	16.3%	45.5%	32.0%	6.3%	IENVDIS129	2.4%	13.0%	55.0%	29.6%

ISAFBUL70	2.0%	10.9%	63.8%	23.3%	IENVDIS130	0.6%	4.1%	57.8%	37.5%
ISAFBUL71	2.0%	20.1%	65.4%	12.5%	IENVDIS131	0.9%	5.3%	63.3%	30.5%

**Table B-2. Percentage of respondents in each response category, by item in the instructional staff survey: 2015  
- continued**

<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>	<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>
ISAFBUL72	0.7%	3.7%	48.4%	47.1%	IENVDIS132	3.9%	17.6%	55.4%	23.1%
ISAFBUL73	1.3%	13.9%	51.8%	33.0%	IENVDIS133	2.7%	20.1%	60.4%	16.9%
ISAFBUL74	1.0%	17.1%	59.3%	22.7%	IENVDIS134	11.4%	27.3%	39.9%	21.4%
ISAFBUL75	2.8%	20.6%	51.2%	25.5%	IENVDIS134B	12.6%	36.8%	38.7%	12.0%
ISAFBUL79	0.4%	5.3%	45.3%	48.9%	IENVDIS134C	8.3%	28.1%	45.7%	17.9%
ISAFBUL80	0.6%	4.0%	45.0%	50.4%	IENVDIS135	9.7%	28.4%	44.3%	17.7%
ISAFBUL81	0.7%	4.6%	43.4%	51.3%	IENVDIS136	1.8%	9.9%	61.1%	27.2%
ISAFBUL82	0.9%	5.5%	43.3%	50.4%					

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table B-3. Percentage of respondents in each response category, by item in the noninstructional staff survey: 2015**

Variable name	Most negative	Negative	Positive	Most positive	Variable name	Most negative	Negative	Positive	Most positive
NENGCLC1	2.6%	15.4%	56.1%	25.9%	NSAFBUL76	1.9%	4.7%	46.7%	46.7%
NENGCLC2	3.1%	14.5%	39.9%	42.5%	NSAFBUL77	1.4%	3.7%	45.8%	49.1%
NENGCLC3	1.8%	14.2%	44.0%	40.0%	NSAFBUL78	1.0%	5.2%	42.9%	51.0%
NENGCLC4	3.2%	19.0%	57.4%	20.4%	NSAFBUL79	1.9%	3.3%	46.7%	48.1%
NENGCLC5	1.3%	6.2%	51.3%	41.2%	NSAFSUB80	8.6%	20.6%	32.1%	38.8%
NENGCLC6	1.8%	5.3%	52.2%	40.7%	NSAFSUB81B	1.9%	7.2%	21.1%	69.9%
NENGCLC7	3.2%	18.3%	48.4%	30.1%	NSAFSUB81	3.8%	17.2%	25.8%	53.1%
NENGCLC8	2.3%	17.3%	53.6%	26.8%	NSAFSUB82	2.4%	12.2%	30.7%	54.6%
NENGREL16	2.3%	7.9%	65.1%	24.7%	NSAFSUB83	3.5%	19.9%	56.2%	20.4%
NENGREL17	1.8%	17.0%	58.7%	22.5%	NSAFSUB84	3.4%	22.0%	58.0%	16.6%
NENGREL18	2.7%	14.9%	60.6%	21.7%	NSAFSUB85	3.0%	14.9%	61.7%	20.4%
NENGREL19	1.4%	9.5%	63.6%	25.5%	NSAFSUB86	3.0%	8.1%	57.1%	31.8%
NENGREL21	1.8%	15.6%	57.6%	25.0%	NSAFSUB87	3.5%	17.0%	63.5%	16.0%
NENGREL24	1.8%	11.7%	50.2%	36.3%	NSAFSUB88	3.6%	21.0%	60.0%	15.4%
NENGREL25	3.6%	23.1%	45.7%	27.6%	NSAFERM89	1.9%	4.7%	46.9%	46.4%
NENGREL26	1.8%	6.8%	51.4%	40.1%	NSAFERM90	3.9%	14.5%	44.0%	37.7%
NENGREL27	1.8%	13.2%	51.6%	33.3%	NSAFERM91	4.3%	11.0%	47.6%	37.1%
NENGREL29	0.9%	2.3%	47.9%	48.9%	NSAFERM92	0.5%	6.7%	47.1%	45.7%
NENGREL30	1.8%	13.6%	62.4%	22.2%	NENVPENV96	5.9%	18.6%	63.7%	11.8%
NENGP33	7.4%	24.4%	45.2%	23.0%	NENVPENV97	4.4%	13.2%	56.1%	26.3%
NENGP34	8.8%	29.3%	41.9%	20.0%	NENVPENV98	1.4%	8.2%	64.7%	25.6%
NENGP35	6.4%	13.3%	58.7%	21.6%	NENVPENV99	2.9%	8.6%	64.1%	24.4%
NENGP37	4.2%	24.7%	51.6%	19.5%	NENVPENV100	2.4%	14.6%	58.5%	24.4%
NENGP38	7.0%	40.8%	44.1%	8.0%	NENVPENV101	1.9%	7.2%	59.6%	31.3%
NENGP39	4.7%	32.1%	52.6%	10.7%	NENVPENV102	1.9%	4.3%	58.9%	34.9%
NENGP41	4.1%	31.8%	53.5%	10.6%	NENVPENV103	1.0%	9.1%	57.2%	32.7%
NENGP43	1.4%	29.7%	57.5%	11.3%	NENVPENV104	0.5%	5.3%	59.9%	34.3%
NENGP44	3.3%	24.9%	57.3%	14.6%	NENVINS107	3.6%	19.5%	57.9%	19.0%
NENGP47	0.9%	8.2%	50.7%	40.2%	NENVINS108	6.5%	34.3%	52.7%	6.5%
NSAFEMO48	3.3%	8.4%	59.1%	29.3%	NENVINS109	1.0%	12.8%	64.0%	22.2%
NSAFEMO49	3.7%	10.6%	70.4%	15.3%	NENVINS110	3.0%	25.5%	55.5%	16.0%
NSAFEMO50	4.6%	12.0%	56.2%	27.2%	NENVINS111	4.9%	12.7%	55.1%	27.3%
NSAFEMO51	4.5%	8.1%	50.2%	37.1%	NENVINS140	0.5%	13.8%	54.7%	31.0%
NSAFEMO52	7.8%	20.5%	44.3%	27.4%	NENVINS141	0.0%	6.9%	54.9%	38.2%
NSAFEMO53	8.8%	19.4%	40.1%	31.8%	NENVPHEA114	1.5%	9.9%	59.6%	29.1%
NSAFEMO54	5.1%	13.6%	43.5%	37.9%	NENVPHEA115	3.0%	23.6%	50.8%	22.6%
NSAFEMO55	3.2%	8.3%	56.2%	32.3%	NENVPHEA117	3.0%	13.9%	55.4%	27.7%
NSAFEMO147	1.4%	9.8%	55.6%	33.2%	NENVPHEA118	2.0%	12.9%	63.4%	21.8%
NSAFEMO148	1.4%	16.2%	53.2%	29.2%	NENVPHEA119	3.0%	17.8%	62.9%	16.3%
NSAFPSAF56	0.9%	3.7%	51.6%	43.8%	NENVMEN122	5.2%	13.5%	62.0%	19.3%
NSAFPSAF57	10.1%	31.2%	44.0%	14.7%	NENVMEN123	4.6%	16.8%	61.2%	17.3%
NSAFPSAF58	1.8%	21.7%	53.9%	22.6%	NENVMEN124	2.6%	17.0%	60.3%	20.1%
NSAFPSAF59	3.2%	17.9%	58.3%	20.6%	NENVMEN125	3.7%	27.9%	55.8%	12.6%
NSAFPSAF60	5.7%	19.3%	44.3%	30.7%	NENVMEN126	5.2%	23.6%	54.5%	16.8%
NSAFPSAF61	0.9%	8.4%	47.7%	43.0%	NENVMEN127	2.1%	11.9%	57.5%	28.5%
NSAFPSAF62	3.8%	15.7%	42.9%	37.6%	NENVDIS130	1.5%	12.5%	60.0%	26.0%



NSAFPSAF63	1.9%	5.1%	45.8%	47.2%	NENVDIS131	0.5%	4.5%	56.1%	38.9%
NSAFPSAF64	14.4%	29.3%	37.2%	19.1%	NENVDIS132	1.0%	6.0%	58.3%	34.7%

**Table B-3. Percentage of respondents in each response category, by item in the noninstructional staff survey: 2015 - continued**

Variable name	Most negative	Negative	Positive	Most positive	Variable name	Most negative	Negative	Positive	Most positive
NSAFBUL65	8.3%	35.2%	49.1%	7.4%	NENVDIS133	5.6%	10.6%	59.1%	24.7%
NSAFBUL66	12.4%	44.3%	32.9%	10.5%	NENVDIS134	9.1%	20.2%	43.4%	27.3%
NSAFBUL67	1.9%	9.3%	59.5%	29.3%	NENVDIS134B	11.3%	32.3%	40.0%	16.4%
NSAFBUL68	2.4%	12.8%	66.4%	18.5%	NENVDIS134C	7.6%	22.2%	47.0%	23.2%
NSAFBUL69	1.9%	3.7%	48.4%	46.0%	NENVDIS135	2.1%	18.9%	59.5%	19.5%
NSAFBUL70	1.4%	10.0%	53.3%	35.2%	NENVDIS136	8.2%	18.0%	50.5%	23.2%
NSAFBUL71	1.9%	9.0%	62.1%	27.0%	NENVDIS137	2.6%	8.2%	60.5%	28.7%
NSAFBUL72	1.9%	20.8%	51.9%	25.5%					

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table B-4. Percentage of respondents in each response category, by item in the parent survey: 2015**

<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>	<b>Variable name</b>	<b>Most negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Most positive</b>
PENGCLC5	2.5%	7.9%	53.1%	23.4%	PSAFSUB40	10.2%	32.9%	39.1%	17.8%
PENGCLC6	2.9%	7.9%	51.9%	26.8%	PSAFSUB41B	1.8%	6.7%	59.4%	32.1%
PENGCLC9	1.3%	9.1%	47.0%	42.7%	PSAFSUB41	8.9%	13.8%	37.3%	23.6%
PENGCLC65	3.5%	7.9%	56.6%	32.0%	PSAFSUB42	7.1%	17.0%	39.7%	20.1%
PENGCLC66	5.2%	16.6%	49.3%	28.8%	PSAFERM44	5.4%	21.5%	42.6%	18.8%
PENGREL10	6.6%	20.7%	55.1%	17.6%	PSAFERM45	2.6%	6.2%	56.8%	34.4%
PENGREL11	5.3%	10.1%	53.1%	31.6%	PSAFERM47	2.7%	6.6%	54.0%	36.7%
PENGREL13	3.5%	4.8%	47.1%	44.5%	PENVPENV48	4.0%	11.2%	58.5%	26.3%
PENGREL15	1.8%	8.8%	47.8%	41.6%	PENVPENV49	1.8%	6.7%	58.7%	32.9%
PENGREL16	2.2%	8.3%	47.4%	42.1%	PENVINS50	5.9%	16.8%	57.3%	20.0%
PENGREL23	3.9%	6.1%	47.8%	32.9%	PENVINS51	5.3%	13.3%	52.0%	29.3%
PENGREL25	3.5%	6.1%	55.3%	31.6%	PENVINS52	4.0%	22.4%	60.5%	13.0%
PSAFEMO27	0.9%	4.4%	47.1%	47.6%	PENVINS53	14.7%	26.8%	52.2%	6.3%
PSAFEMO28	1.3%	5.3%	47.6%	45.8%	PENVINS54	7.2%	35.7%	46.2%	10.9%
PSAFEMO29	0.0%	0.9%	19.6%	79.5%	PENVPHEA55	8.0%	45.5%	36.2%	10.3%
PSAFPSAF30	1.3%	5.8%	42.2%	50.7%	PENVMEN57	11.9%	20.5%	21.5%	46.1%
PSAFPSAF32	2.2%	4.9%	46.0%	46.9%	PENVMEN58	5.6%	12.0%	16.7%	65.7%
PSAFPSAF33	3.2%	2.7%	50.5%	43.7%	PENVDIS59	9.7%	13.8%	27.2%	49.3%
PSAFPSAF34	2.3%	4.1%	66.2%	27.4%	PENVDIS60	8.7%	16.4%	21.0%	53.9%
PSAFBUL36	4.0%	16.1%	42.9%	18.3%	PENVDIS61	3.1%	7.6%	41.8%	40.4%
PSAFBUL37	6.8%	9.0%	40.5%	20.7%	PENVDIS61C	1.8%	3.1%	48.7%	42.0%
PSAFBUL39	6.3%	14.3%	39.3%	17.4%	PENVDIS61B	0.0%	2.7%	46.5%	39.8%

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table C-1. Confirmatory factor analysis, factor loading, by domain and item (all items) in the student survey: 2015**

Engagement			Environment			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
F1 BY			F1 BY			F1 BY		
SENGCLC1	0.603	0.007	SSAFEMO49	0.661	0.007	SENVPENV99	0.767	0.005
SENGCLC2	0.668	0.007	SSAFEMO50	0.535	0.009	SENVPENV100	0.680	0.007
SENGCLC3	0.559	0.008	SSAFEMO51	0.453	0.009	SENVPENV101	0.834	0.004
SENGCLC4	0.788	0.005	SSAFEMO52	0.567	0.008	SENVPENV102	0.609	0.008
SENGCLC5	0.477	0.009	SSAFEMO53	0.680	0.007	SENVPENV103	0.827	0.004
SENGCLC6	0.423	0.010	SSAFEMO54	0.816	0.005	SENVPENV104	0.248	0.011
SENGCLC7	0.745	0.005	SSAFEMO55	0.667	0.006	SENVPENV105	0.698	0.006
SENGCLC8	0.760	0.005	SSAFEMO56	0.815	0.005	SENVPENV106	0.670	0.007
F2 BY			SSAFEMO57	0.706	0.006	SENVPENV107	0.696	0.007
SENGREL9	0.758	0.004	SSAFEMO58	0.743	0.006	F2 BY		
SENGREL10	0.710	0.005	F2 BY			SENVINS108	0.195	0.010
SENGREL11	0.745	0.004	SSAFPSAF59	0.708	0.005	SENVINS109	0.125	0.010
SENGREL12	0.767	0.004	SSAFPSAF60	0.614	0.006	SENVINS111	0.697	0.006
SENGREL13	0.675	0.005	SSAFPSAF61	0.497	0.008	SENVINS113	0.704	0.006
SENGREL14	0.791	0.004	SSAFPSAF62	0.685	0.006	SENVINS114	0.643	0.006
SENGREL15	0.596	0.006	SSAFPSAF63	0.487	0.008	SENVINS115	0.628	0.007
SENGREL15								
3	0.611	0.010	SSAFPSAF65	0.736	0.006	SENVINS117	0.723	0.006
SENGREL16	0.808	0.004	SSAFPSAF66	0.710	0.006	SENVINS119	0.780	0.005
SENGREL17	0.791	0.004	SSAFPSAF67	0.808	0.004	SENVINS121	0.650	0.007
SENGREL18	0.685	0.005	SSAFPSAF68	0.775	0.005	SENVINS122	0.552	0.008
SENGREL19	0.649	0.006	SSAFPSAF69	0.837	0.003	F3 BY		
SENGREL20	0.710	0.005	SSAFPSAF70	0.805	0.004	SENVPHEA123	0.663	0.012
SENGREL21	0.673	0.005	SSAFPSAF71	0.720	0.005	SENVPHEA124	0.680	0.012
SENGREL22	0.649	0.006	F3 BY			SENVPHEA125	0.404	0.016
SENGREL26	0.518	0.007	SSAFBUL72	0.815	0.004	SENVPHEA126	0.286	0.015
SENGREL29	0.630	0.006	SSAFBUL74	0.773	0.004	SENVPHEA127	0.336	0.016
F3 BY			SSAFBUL75	0.779	0.004	SENVPHEA128	0.372	0.016
SENGPAR43	0.659	0.007	SSAFBUL76	0.735	0.005	SENVPHEA129	0.170	0.017
SENGPAR44	0.493	0.008	SSAFBUL77	0.860	0.005	F4 BY		
SENGPAR45	0.490	0.009	SSAFBUL77B	0.856	0.005	SENVMEN130	0.781	0.005
SENGPAR46	0.685	0.006	SSAFBUL81	0.704	0.006	SENVMEN131	0.786	0.005
SENGPAR47	0.650	0.007	SSAFBUL73	0.765	0.005	SENVMEN132	0.793	0.004
SENGPAR48	0.740	0.006	SSAFBUL78	0.444	0.009	SENVMEN133	0.766	0.005
F BY			SSAFBUL79	0.443	0.008	SENVMEN134	0.541	0.008
F1	0.791	0.005	SSAFBUL80	0.542	0.008	SENVMEN135	0.256	0.010
F2	0.982	0.004	SSAFBUL82	0.653	0.006	SENVMEN136	0.367	0.010
F3	0.808	0.006	SSAFBUL83	0.686	0.006	SENVMEN137	0.550	0.008

**Table C-1. Confirmatory factor analysis, factor loading, by domain and item (all items) in the student survey: 2015 - continued**

Engagement			Environment			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
			F4 BY			F5 BY		
			SSAFSUB84	0.760	0.005	SENVDIS138	0.775	0.005
			SSAFSUB85					
			B	0.613	0.008	SENVDIS139	0.721	0.005
			SSAFSUB85	0.697	0.006	SENVDIS140	0.594	0.007
			SSAFSUB86	0.756	0.005	SENVDIS141	0.772	0.005
			SSAFSUB87	0.702	0.006	SENVDIS142	0.631	0.006
			SSAFSUB88	0.829	0.004	SENVDIS143	0.710	0.005
			SSAFSUB89	0.858	0.003	SENVDIS144	0.749	0.005
			SSAFSUB90	0.835	0.004	SENVDIS145	0.714	0.005
			SSAFSUB91	0.787	0.005	SENVDIS146	0.732	0.005
			SSAFSUB92	0.775	0.005	SENVDIS147	0.799	0.004
			SSAFSUB93	0.874	0.003	SENVDIS147B	0.434	0.008
			SSAFSUB94	0.891	0.003	SENVDIS147C	0.701	0.006
			F BY			F BY		
			F1	0.622	0.007	F1	0.727	0.005
			F2	0.961	0.004	F2	0.919	0.003
			F3	0.841	0.004	F3	0.489	0.010
			F4	0.623	0.006	F4	0.936	0.003
						F5	0.899	0.003

NOTE: The data did not confirm the predetermined factor structure for the engagement domain. Therefore, confirmatory factor analysis was not conducted for the engagement domain for the purpose of item analysis.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table C-2. Confirmatory factor analysis, factor loading, by domain and item (all items) in the instructional staff survey: 2015**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
F1 BY			F1 BY			F1 BY		
IENGCLC1	0.576	0.027	ISAFEMO49	0.864	0.013	IENVPENV96	0.867	0.019
IENGCLC2	0.684	0.022	ISAFEMO50	0.807	0.016	IENVPENV97	0.762	0.022
IENGCLC3	0.700	0.022	ISAFEMO51	0.907	0.010	IENVPENV98	0.966	0.015
IENGCLC4	0.709	0.021	ISAFEMO52	0.854	0.013	IENVPENV99	0.348	0.035
IENGCLC5	0.894	0.011	ISAFEMO53	0.798	0.015	IENVPENV100	0.528	0.029
IENGCLC6	0.888	0.012	ISAFEMO54	0.754	0.017	IENVPENV101	0.607	0.026
IENGCLC7	0.762	0.019	ISAFEMO55	0.864	0.012	IENVPENV102	0.682	0.023
IENGCLC8	0.729	0.021	ISAFEMO56	0.836	0.014	IENVPENV103	0.682	0.024
F2 BY			ISAFEMO57	0.703	0.020	F2 BY		
IENGREL9	0.800	0.018	ISAFEMO58	0.677	0.021	IENVINS104	0.477	0.030
IENGREL10	0.862	0.013	F2 BY			IENVINS105	0.606	0.025
IENGREL11	0.876	0.014	ISAFPSAF59	0.929	0.015	IENVINS106	0.568	0.029
IENGREL12	0.692	0.021	ISAFPSAF60	0.591	0.025	IENVINS107	0.816	0.017
IENGREL13	0.710	0.021	ISAFPSAF61	0.698	0.021	IENVINS108	0.800	0.018
IENGREL14	0.689	0.023	ISAFPSAF62	0.704	0.021	IENVINS110	0.724	0.021
IENGREL15	0.784	0.019	ISAFPSAF63	0.783	0.017	IENVINS112	0.567	0.027
F3 BY			ISAFPSAF64	0.83	0.014	IENVINS114	0.75	0.018
IENGPARG29	0.791	0.015	ISAFPSAF65	0.829	0.014	IENVINS115	0.724	0.020
IENGPARG31	0.835	0.011	ISAFPSAF66	0.717	0.021	IENVINS116	0.758	0.020
IENGPARG32	0.855	0.011	ISAFPSAF67	0.790	0.017	F3 BY		
IENGPARG33	0.862	0.011	F3 BY			IENVPHEA117	0.896	0.013
IENGPARG35	0.921	0.008	ISAFBUL68	0.754	0.019	IENVPHEA119	0.891	0.010
IENGPARG36	0.923	0.007	ISAFBUL69	0.621	0.024	IENVPHEA120	0.857	0.012
IENGPARG37	0.855	0.011	ISAFBUL70	0.699	0.021	IENVPHEA121	0.896	0.011
IENGPARG39	0.842	0.012	ISAFBUL71	0.673	0.025	IENVPHEA122	0.861	0.013
IENGPARG42	0.785	0.015	ISAFBUL72	0.632	0.023	IENVPHEA138	0.780	0.018
IENGPARG48	0.664	0.023	ISAFBUL73	0.74	0.018	F4 BY		
F BY			ISAFBUL74	0.774	0.018	IENVMEN123	0.800	0.016
F1	0.904	0.013	ISAFBUL75	0.776	0.017	IENVMEN124	0.898	0.010
F2	0.872	0.014	ISAFBUL79	0.888	0.010	IENVMEN125	0.884	0.010
F3	0.846	0.013	ISAFBUL80	0.964	0.006	IENVMEN126	0.927	0.007
			ISAFBUL81	0.896	0.008	IENVMEN127	0.962	0.005
			ISAFBUL82	0.841	0.011	IENVMEN128	0.898	0.009
						IENVMEN137	0.967	0.005

**Table C-2. Confirmatory factor analysis, factor loading, by domain and item (all items) in the instructional staff survey: 2015 - continued**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
			F4 BY			F5 BY		
			ISAFSUB83	0.856	0.017	IENVDIS129	0.788	0.016
			ISAFSUB84B	0.566	0.031	IENVDIS130	0.778	0.018
			ISAFSUB84	0.639	0.023	IENVDIS131	0.836	0.014
			ISAFSUB85	0.762	0.019	IENVDIS132	0.840	0.012
			ISAFSUB86	0.783	0.016	IENVDIS133	0.920	0.009
			ISAFSUB87	0.832	0.013	IENVDIS134	0.874	0.010
			ISAFSUB88	0.735	0.020	IENVDIS134B	0.802	0.014
			ISAFSUB89	0.547	0.032	IENVDIS134C	0.913	0.007
			ISAFSUB90	0.885	0.011	IENVDIS135	0.913	0.007
			ISAFSUB91	0.901	0.011	IENVDIS136	0.828	0.014
			F BY			F BY		
			F1	0.828	0.013	F1	0.755	0.016
			F2	0.864	0.012	F2	0.902	0.009
			F3	0.815	0.013	F3	0.804	0.013
			F4	0.664	0.018	F4	0.877	0.012
						F5	0.911	0.008

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table C-3. Confirmatory factor analysis, factor loading, by domain and item (all items) in the noninstructional staff survey: 2015**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
F1 BY			F1 BY			F1 BY		
NENGCLC1	0.483	0.059	NSAFEMO48	0.903	0.021	NENVPENV96	0.504	0.062
NENGCLC2	0.745	0.039	NSAFEMO49	0.855	0.028	NENVPENV97	0.505	0.056
NENGCLC3	0.832	0.033	NSAFEMO50	0.899	0.021	NENVPENV98	0.695	0.049
NENGCLC4	0.649	0.050	NSAFEMO51	0.869	0.022	NENVPENV99	0.711	0.041
NENGCLC5	0.830	0.029	NSAFEMO52	0.839	0.023	NENVPENV100	0.590	0.052
NENGCLC6	0.891	0.023	NSAFEMO53	0.780	0.029	NENVPENV101	0.905	0.028
NENGCLC7	0.734	0.037	NSAFEMO54	0.903	0.017	NENVPENV102	0.812	0.031
NENGCLC8	0.725	0.040	NSAFEMO55	0.808	0.028	NENVPENV103	0.979	0.022
F2 BY			NSAFEMO147	0.630	0.045	NENVPENV104	0.760	0.047
NENGREL16	0.810	0.031	NSAFEMO148	0.587	0.047	F2 BY		
NENGREL17	0.840	0.028	F2 BY			NENVINS107	0.905	0.024
NENGREL18	0.801	0.031	NSAFPSAF56	0.810	0.037	NENVINS108	0.126	0.070
NENGREL19	0.809	0.029	NSAFPSAF57	0.744	0.033	NENVINS109	0.748	0.041
NENGREL21	0.794	0.030	NSAFPSAF58	0.813	0.025	NENVINS110	0.611	0.046
NENGREL24	0.850	0.021	NSAFPSAF59	0.726	0.035	NENVINS111	0.799	0.033
NENGREL25	0.926	0.013	NSAFPSAF60	0.809	0.028	NENVINS140	0.769	0.034
NENGREL26	0.926	0.013	NSAFPSAF61	0.830	0.026	NENVINS141	0.750	0.036
NENGREL27	0.910	0.014	NSAFPSAF62	0.836	0.024	F3 BY		
NENGREL29	0.804	0.029	NSAFPSAF63	0.778	0.034	NENVPHEA114	0.925	0.021
NENGREL30	0.734	0.035	NSAFPSAF64	0.771	0.032	NENVPHEA115	0.869	0.030
F3 BY			F3 BY			NENVPHEA117	0.789	0.027
NENGP33	0.968	0.011	NSAFBUL65	0.706	0.036	NENVPHEA118	0.908	0.017
NENGP34	0.944	0.013	NSAFBUL66	0.652	0.041	NENVPHEA119	0.882	0.025
NENGP35	0.733	0.036	NSAFBUL67	0.711	0.035	F4 BY		
NENGP37	0.750	0.037	NSAFBUL68	0.578	0.046	NENVMEN122	0.927	0.016
NENGP38	0.839	0.023	NSAFBUL69	0.762	0.039	NENVMEN123	0.935	0.017
NENGP39	0.788	0.031	NSAFBUL70	0.734	0.034	NENVMEN124	0.954	0.016
NENGP41	0.842	0.025	NSAFBUL71	0.693	0.039	NENVMEN125	0.848	0.026
NENGP43	0.866	0.025	NSAFBUL72	0.753	0.038	NENVMEN126	0.914	0.020
NENGP44	0.860	0.025	NSAFBUL76	0.872	0.019	NENVMEN127	0.884	0.021
NENGP47	0.779	0.034	NSAFBUL77	0.881	0.019			
F BY			NSAFBUL78	0.937	0.017			
F1	0.920	0.020	NSAFBUL79	0.958	0.013			
F2	0.893	0.020						
F3	0.839	0.028						

**Table C-3. Confirmatory factor analysis, factor loading, by domain and item (all items) in the noninstructional staff survey: 2015 - continued**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
			F4 BY			F5 BY		
			NSAFSUB80	0.769	0.044	NENVDIS130	0.831	0.027
			NSAFSUB81B	0.516	0.062	NENVDIS131	0.778	0.032
			NSAFSUB81	0.741	0.047	NENVDIS132	0.855	0.026
			NSAFSUB82	0.709	0.041	NENVDIS133	0.888	0.020
			NSAFSUB83	0.863	0.024	NENVDIS134	0.835	0.023
			NSAFSUB84	0.868	0.022	NENVDIS134B	0.763	0.035
			NSAFSUB85	0.787	0.028	NENVDIS134C	0.825	0.026
			NSAFSUB86	0.523	0.065	NENVDIS135	0.961	0.012
			NSAFSUB87	0.883	0.020	NENVDIS136	0.879	0.019
			NSAFSUB88	0.780	0.030	NENVDIS137	0.855	0.025
			F BY			F BY		
			F1	0.716	0.037	F1	0.733	0.033
			F2	0.913	0.023	F2	0.967	0.012
			F3	0.811	0.029	F3	0.876	0.017
			F4	0.633	0.036	F4	0.922	0.012
						F5	0.930	0.015

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.



**Table C-4. Confirmatory factor analysis, factor loading, by domain and item (all items) in the parent survey: 2015**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
F BY			F BY			F BY		
PENGCLC5	0.588	0.045	PSAFEMO27	0.785	0.027	PENVPENV48	0.843	0.022
PENGCLC6	0.714	0.038	PSAFEMO28	0.867	0.02	PENVPENV49	0.831	0.028
PENGCLC9	0.730	0.032	PSAFEMO29	0.818	0.022	PENVINS50	0.596	0.056
PENGCLC6 5	0.746	0.033	PSAFPSAF30	0.673	0.036	PENVINS51	0.711	0.033
PENGCLC6 6	0.234	0.053	PSAFPSAF32	0.497	0.045	PENVINS52	0.796	0.031
PENGREL10	0.738	0.031	PSAFPSAF33	0.486	0.043	PENVINS53	0.664	0.042
PENGREL11	0.801	0.028	PSAFPSAF34	0.514	0.048	PENVINS54	0.683	0.036
PENGREL13	0.893	0.019	PSAFBUL36	0.747	0.033	PENVPHEA55	0.546	0.044
PENGREL15	0.787	0.031	PSAFBUL37	0.706	0.032	PENVMEN57	0.815	0.023
PENGREL16	0.808	0.029	PSAFBUL39	0.392	0.049	PENVMEN58	0.790	0.028
PENGREL23	0.733	0.038	PSAFSUB40	0.938	0.012	PENVDIS59	0.593	0.043
PENGREL25	0.614	0.042	PSAFSUB41B	0.822	0.027	PENVDIS60	0.748	0.029
			PSAFSUB41	0.919	0.012	PENVDIS61	0.804	0.025
			PSAFSUB42	0.907	0.015	PENVDIS61C	0.843	0.021
						PENVDIS61B	0.527	0.047

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table D-1. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the student survey: 2015**

Variable name	Environment			Variable name	Safety			Variable name	Environment		
	Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial
SENGCLC1	1.156	1.306	0.415	SSAFEMO49	1.037	1.039	0.412	SENVPENV99	0.854	0.852	0.489
SENGCLC2	1.050	1.109	0.471	SSAFEMO50	1.139	1.151	0.331	SENVPENV100	0.957	0.978	0.405
SENGCLC3	1.128	1.164	0.407	SSAFEMO51	1.319	1.383	0.253	SENVPENV101	0.819	0.821	0.517
SENGCLC4	0.899	0.924	0.555	SSAFEMO52	1.232	1.262	0.304	SENVPENV102	0.979	1.001	0.409
SENGCLC5	1.215	1.274	0.366	SSAFEMO53	1.050	1.051	0.412	SENVPENV103	0.814	0.808	0.536
SENGCLC6	1.413	2.727	0.296	SSAFEMO54	0.995	1.001	0.499	SENVPENV104	1.292	1.419	0.192
SENGCLC7	1.032	1.053	0.490	SSAFEMO55	1.135	1.142	0.379	SENVPENV105	0.910	0.908	0.454
SENGCLC8	1.002	0.989	0.505	SSAFEMO56	1.008	1.001	0.471	SENVPENV106	0.931	0.924	0.449
SENGREL9	0.818	0.821	0.618	SSAFEMO57	1.097	1.088	0.400	SENVPENV107	0.894	0.899	0.485
SENGREL10	0.870	0.869	0.593	SSAFEMO58	1.079	1.087	0.433	SENVINS108	1.292	1.501	0.166
SENGREL11	0.820	0.804	0.630	SSAFPSAF59	0.901	0.887	0.545	SENVINS109	1.413	1.601	0.118
SENGREL12	0.808	0.801	0.637	SSAFPSAF60	1.004	0.994	0.455	SENVINS111	0.882	0.881	0.514
SENGREL13	0.910	0.914	0.582	SSAFPSAF61	1.214	1.368	0.376	SENVINS113	0.867	0.865	0.518
SENGREL14	0.771	0.748	0.656	SSAFPSAF62	0.960	0.973	0.526	SENVINS114	0.909	0.919	0.490
SENGREL15	1.041	1.067	0.486	SSAFPSAF63	1.159	1.126	0.369	SENVINS115	0.948	0.922	0.471
SENGREL153	0.997	1.028	0.502	SSAFPSAF65	0.862	0.807	0.574	SENVINS117	0.868	0.848	0.519
SENGREL16	0.732	0.716	0.684	SSAFPSAF66	0.908	0.909	0.565	SENVINS119	0.778	0.759	0.597
SENGREL17	0.762	0.746	0.668	SSAFPSAF67	0.816	0.808	0.628	SENVINS121	0.914	0.866	0.466
SENGREL18	0.888	0.883	0.596	SSAFPSAF68	0.862	0.862	0.596	SENVINS122	0.972	0.948	0.427
SENGREL19	0.951	0.932	0.549	SSAFPSAF69	0.804	0.802	0.630	SENVPHEA123	1.223	1.320	0.311
SENGREL20	0.915	0.915	0.578	SSAFPSAF70	0.834	0.833	0.611	SENVPHEA124	1.231	1.390	0.318
SENGREL21	0.951	0.939	0.547	SSAFPSAF71	0.905	0.899	0.577	SENVPHEA125	1.468	1.934	0.201
SENGREL22	0.985	0.993	0.528	SSAFBUL72	0.885	0.869	0.592	SENVPHEA126	1.432	1.638	0.141
SENGREL26	1.095	1.109	0.466	SSAFBUL74	0.965	0.961	0.548	SENVPHEA127	1.440	1.790	0.164
SENGREL29	0.981	0.958	0.521	SSAFBUL75	0.948	0.932	0.551	SENVPHEA128	1.484	1.950	0.184
SENGPAR43	1.093	1.142	0.490	SSAFBUL76	0.976	0.988	0.548	SENVPHEA129	1.687	2.514	0.082
SENGPAR44	1.348	1.472	0.354	SSAFBUL77	0.833	0.839	0.597	SENVMEN130	0.787	0.786	0.614
SENGPAR45	1.345	1.516	0.355	SSAFBUL77B	0.830	0.837	0.599	SENVMEN131	0.784	0.768	0.608
SENGPAR46	1.036	1.047	0.520	SSAFBUL81	0.984	1.009	0.520	SENVMEN132	0.792	0.787	0.609
SENGPAR47	1.049	1.027	0.491	SSAFBUL73	0.906	0.916	0.582	SENVMEN133	0.813	0.804	0.596
SENGPAR48	0.936	0.917	0.562	SSAFBUL78	1.209	1.406	0.364	SENVMEN134	1.026	1.063	0.405
				SSAFBUL79	1.197	1.237	0.357	SENVMEN135	1.226	1.333	0.237
				SSAFBUL80	1.088	1.100	0.444	SENVMEN136	1.154	1.359	0.309
				SSAFBUL82	1.017	1.060	0.504	SENVMEN137	0.992	1.008	0.443
				SSAFBUL83	1.004	1.029	0.520	SENVDIS138	0.766	0.760	0.634
				SSAFSUB84	1.011	1.138	0.515	SENVDIS139	0.795	0.795	0.606
				SSAFSUB85B	1.277	1.692	0.361	SENVDIS140	0.952	0.937	0.464

SSAFSUB85	1.208	1.602	0.413	SENVDIS141	0.775	0.772	0.628
SSAFSUB86	1.088	1.290	0.470	SENVDIS142	0.903	0.867	0.499

**Table D-1. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the student survey: 2015 - continued**

Variable name	Environment			Variable name	Safety			Variable name	Environment		
	Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial
				SSAFSUB87	1.125	1.304	0.432	SENVDIS143	0.837	0.836	0.574
				SSAFSUB88	0.920	0.922	0.552	SENVDIS144	0.787	0.775	0.608
				SSAFSUB89	0.868	0.838	0.590	SENVDIS145	0.825	0.812	0.580
				SSAFSUB90	0.863	0.833	0.591	SENVDIS146	0.804	0.798	0.597
				SSAFSUB91	0.909	0.912	0.571	SENVDIS147	0.764	0.757	0.640
				SSAFSUB92	0.942	0.926	0.537	SENVDIS147B	1.101	1.129	0.350
				SSAFSUB93	0.850	0.857	0.600	SENVDIS147C	0.839	0.845	0.575
				SSAFSUB94	0.813	0.801	0.627				

NOTE: The data did not confirm the predetermined factor structure for the engagement domain. Therefore, Rasch analysis was not conducted for the engagement domain for the purpose of item analysis.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table D-2. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the instructional staff survey: 2015**

Variable name	Engagement			Variable name	Safety			Variable name	Environment		
	Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial
IENGCLC1	1.371	1.613	0.441	ISAFEMO49	0.739	0.710	0.632	IENVPENV96	0.906	0.901	0.564
IENGCLC2	1.230	1.417	0.460	ISAFEMO50	0.832	0.825	0.562	IENVPENV97	1.108	1.680	0.489
IENGCLC3	1.112	1.209	0.509	ISAFEMO51	0.717	0.704	0.664	IENVPENV98	0.810	0.766	0.607
IENGCLC4	1.108	1.110	0.544	ISAFEMO52	0.858	0.838	0.564	IENVPENV99	1.804	2.028	0.196
IENGCLC5	0.847	0.786	0.634	ISAFEMO53	0.986	1.050	0.543	IENVPENV100	1.629	1.997	0.315
IENGCLC6	0.853	0.802	0.638	ISAFEMO54	1.075	1.059	0.513	IENVPENV101	1.454	1.517	0.370
IENGCLC7	1.067	1.106	0.609	ISAFEMO55	0.837	0.814	0.618	IENVPENV102	1.331	1.359	0.442
IENGCLC8	1.092	1.113	0.553	ISAFEMO56	0.886	0.860	0.565	IENVPENV103	1.407	1.521	0.443
IENGREL9	1.031	1.023	0.556	ISAFEMO57	1.073	1.042	0.451	IENVINS104	1.390	1.400	0.344
IENGREL10	0.928	0.913	0.620	ISAFEMO58	1.102	1.145	0.400	IENVINS105	1.272	1.319	0.473
IENGREL11	0.844	0.819	0.654	ISAFPSAF59	0.746	0.702	0.653	IENVINS106	1.229	1.206	0.384
IENGREL12	1.147	1.188	0.502	ISAFPSAF60	1.284	1.447	0.403	IENVINS107	0.904	0.913	0.625
IENGREL13	1.129	1.174	0.545	ISAFPSAF61	1.075	1.112	0.486	IENVINS108	0.882	0.859	0.625
IENGREL14	1.247	1.283	0.538	ISAFPSAF62	1.060	1.097	0.490	IENVINS110	1.041	1.005	0.555
IENGREL15	0.985	0.956	0.596	ISAFPSAF63	0.932	0.929	0.565	IENVINS112	1.305	1.363	0.412
IENGP2	0.976	0.977	0.656	ISAFPSAF64	0.845	0.793	0.590	IENVINS114	1.007	1.028	0.542
IENGP31	0.895	0.882	0.699	ISAFPSAF65	0.841	0.806	0.611	IENVINS115	1.049	1.034	0.513
IENGP32	0.865	0.862	0.707	ISAFPSAF66	0.992	1.005	0.511	IENVINS116	0.987	0.972	0.592
IENGP33	0.799	0.797	0.722	ISAFPSAF67	0.985	0.996	0.604	IENVPHEA117	0.875	0.826	0.621
IENGP35	0.852	0.833	0.718	ISAFBUL68	0.968	0.981	0.567	IENVPHEA119	0.896	0.891	0.634
IENGP36	0.853	0.846	0.719	ISAFBUL69	1.199	1.209	0.476	IENVPHEA120	0.993	0.986	0.588
IENGP37	0.829	0.824	0.717	ISAFBUL70	0.934	0.902	0.548	IENVPHEA121	0.888	0.853	0.634
IENGP39	0.838	0.815	0.693	ISAFBUL71	0.977	0.996	0.507	IENVPHEA122	0.918	0.906	0.621
IENGP42	0.960	0.952	0.646	ISAFBUL72	1.083	1.228	0.402	IENVPHEA138	1.006	0.975	0.555
IENGP48	1.120	1.265	0.537	ISAFBUL73	0.968	0.958	0.530	IENVMEN123	0.898	0.842	0.622
				ISAFBUL74	0.933	0.921	0.550	IENVMEN124	0.748	0.702	0.702
				ISAFBUL75	0.909	0.909	0.592	IENVMEN125	0.798	0.790	0.707
				ISAFBUL79	0.944	0.899	0.522	IENVMEN126	0.764	0.753	0.717
				ISAFBUL80	0.894	0.823	0.551	IENVMEN127	0.693	0.674	0.742

ISAFBUL81	0.882	0.826	0.560	IENVMEN128	0.848	0.857	0.688
ISAFBUL82	0.873	0.800	0.565	IENVMEN137	0.658	0.645	0.764
ISAFSUB83	1.130	1.225	0.512	IENVDIS129	0.876	0.830	0.656
ISAFSUB84	1.390	2.002	0.261	IENVDIS130	0.913	0.862	0.575
B							
ISAFSUB84	1.497	2.043	0.324	IENVDIS131	0.836	0.764	0.636
ISAFSUB85	1.295	1.704	0.421	IENVDIS132	0.818	0.825	0.684
ISAFSUB86	1.089	1.084	0.487	IENVDIS133	0.720	0.699	0.733
ISAFSUB87	1.035	1.035	0.516	IENVDIS134	0.821	0.840	0.729
ISAFSUB88	1.088	1.093	0.480	IENVDIS134B	0.969	0.986	0.662
ISAFSUB89	1.214	1.393	0.409	IENVDIS134C	0.798	0.809	0.725
ISAFSUB90	1.016	1.018	0.506	IENVDIS135	0.766	0.763	0.741
ISAFSUB91	1.017	1.016	0.531	IENVDIS136	0.793	0.750	0.679

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table D-3. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the noninstructional staff survey: 2015**

Engagement				Safety				Environment			
Variable name	Infit	Outfit	Point-polyserial	Variable name	Infit	Outfit	Point-polyserial	Variable name	Infit	Outfit	Point-polyserial
NENGCLC1	1.593	2.131	0.374	NSAFEMO48	0.737	0.725	0.580	NENVPENV96	1.570	1.750	0.314
NENGCLC2	1.153	1.516	0.538	NSAFEMO49	0.818	0.830	0.534	NENVPENV97	1.818	2.069	0.268
NENGCLC3	0.870	0.927	0.596	NSAFEMO50	0.733	0.735	0.583	NENVPENV98	1.273	1.287	0.426
NENGCLC4	1.306	1.362	0.499	NSAFEMO51	0.923	0.924	0.507	NENVPENV99	1.374	1.347	0.419
NENGCLC5	1.000	0.932	0.601	NSAFEMO52	0.987	1.065	0.513	NENVPENV10	1.637	1.861	0.300
NENGCLC6	0.871	0.816	0.633	NSAFEMO53	1.039	1.082	0.516	NENVPENV10	0.893	0.851	0.611
NENGCLC7	1.128	1.166	0.581	NSAFEMO54	0.915	0.916	0.568	NENVPENV10	1.074	1.075	0.449
NENGCLC8	1.141	1.134	0.590	NSAFEMO55	0.946	0.954	0.521	NENVPENV10	0.821	0.755	0.608
NENGREL16	0.876	0.877	0.662	NSAFEMO147	1.207	1.293	0.360	NENVPENV10	1.095	1.057	0.498
NENGREL17	0.904	0.842	0.658	NSAFEMO148	1.325	1.385	0.335	NENVINS107	0.704	0.688	0.736
NENGREL18	1.001	0.929	0.642	NSAFPSAF56	0.858	0.823	0.537	NENVINS108	2.031	2.336	0.115
NENGREL19	0.921	0.922	0.665	NSAFPSAF57	0.981	0.981	0.493	NENVINS109	0.995	0.987	0.606
NENGREL21	0.967	0.927	0.631	NSAFPSAF58	0.880	0.865	0.587	NENVINS110	1.284	1.282	0.459
NENGREL24	0.906	0.978	0.654	NSAFPSAF59	0.958	0.987	0.538	NENVINS111	0.900	0.846	0.602
NENGREL25	0.747	0.727	0.730	NSAFPSAF60	0.910	0.893	0.565	NENVINS140	0.994	0.985	0.581
NENGREL26	0.888	0.805	0.656	NSAFPSAF61	0.821	0.746	0.595	NENVINS141	0.882	0.814	0.556
NENGREL27	0.978	0.932	0.626	NSAFPSAF62	0.835	0.753	0.614	NENVPHEA114	0.752	0.663	0.682
NENGREL29	0.906	0.811	0.626	NSAFPSAF63	0.914	0.899	0.528	NENVPHEA115	0.871	0.910	0.665
NENGREL30	1.070	1.053	0.616	NSAFPSAF64	0.919	0.909	0.592	NENVPHEA117	1.080	1.016	0.529
NENGP33	0.747	0.721	0.785	NSAFBUL65	0.975	0.995	0.498	NENVPHEA118	0.773	0.678	0.675
NENGP34	0.824	0.803	0.755	NSAFBUL66	1.181	1.210	0.442	NENVPHEA119	0.892	0.850	0.625
NENGP35	1.190	1.218	0.581	NSAFBUL67	0.938	0.917	0.537	IENVMEN122	0.762	0.674	0.732
NENGP37	1.108	1.104	0.611	NSAFBUL68	1.076	1.071	0.378	IENVMEN123	0.719	0.703	0.723

NENGP38	1.026	1.014	0.622	NSAFBUL69	0.952	0.962	0.472	NENVMEN124	0.678	0.627	0.752
NENGP39	1.070	1.053	0.602	NSAFBUL70	0.963	0.927	0.492	NENVMEN125	0.885	0.882	0.628
NENGP41	0.968	1.000	0.644	NSAFBUL71	0.973	0.937	0.488	NENVMEN126	0.701	0.820	0.755
NENGP43	0.888	0.877	0.657	NSAFBUL72	0.879	0.870	0.577	NENVMEN127	0.787	0.742	0.709
NENGP44	0.877	0.883	0.683	NSAFBUL76	1.006	0.999	0.466	NENVDIS130	0.791	0.725	0.703
NENGP47	0.960	0.909	0.615	NSAFBUL77	0.982	0.998	0.470	NENVDIS131	0.910	0.851	0.602
				NSAFBUL78	0.801	0.733	0.582	NENVDIS132	0.818	0.793	0.677
				NSAFBUL79	0.975	0.999	0.491	NENVDIS133	0.803	0.738	0.704
				NSAFSUB80	1.213	1.981	0.461	NENVDIS134	0.908	0.916	0.678
				NSAFSUB81B	1.443	2.015	0.201	NENVDIS134B	1.104	1.292	0.626
				NSAFSUB81	1.371	1.932	0.325	NENVDIS134C	0.923	1.007	0.663
				NSAFSUB82	1.254	1.423	0.331	NENVDIS135	0.644	0.600	0.783
				NSAFSUB83	0.998	0.986	0.515	NENVDIS136	0.821	0.784	0.697
				NSAFSUB84	1.039	1.050	0.486	NENVDIS137	0.778	0.684	0.693
				NSAFSUB85	1.128	1.165	0.410				
				NSAFSUB86	1.198	1.266	0.380				
				NSAFSUB87	1.067	1.109	0.445				
				NSAFSUB88	1.141	1.197	0.411				

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table D-4. Infit, outfit, and point-polyserial statistics, by domain and item (all items) in the parent survey: 2015**

Variable name	Engagement			Variable name	Safety			Variable name	Environment		
	Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial
PENGCLC5	1.138	1.139	0.371	PSAFEMO27	0.950	0.906	0.458	PENVPENV48	0.97	0.953	0.533
PENGCLC6	0.895	0.894	0.576	PSAFEMO28	0.895	0.850	0.523	PENVPENV49	1.05	0.983	0.508
PENGCLC9	0.868	0.776	0.542	PSAFEMO29	0.938	0.940	0.506	PENVINS50	1.14	0.793	0.295
PENGCLC6 5	0.917	0.871	0.549	PSAFPSAF30	0.912	0.884	0.497	PENVINS51	0.79	0.735	0.583
PENGCLC6 6	2.025	2.528	0.129	PSAFPSAF32	1.198	1.210	0.406	PENVINS52	0.80	0.720	0.602
PENGREL10	0.906	0.889	0.630	PSAFPSAF33	1.244	1.185	0.381	PENVINS53	1.07	1.024	0.476
PENGREL11	0.844	0.858	0.674	PSAFPSAF34	1.207	1.191	0.356	PENVINS54	0.95	0.919	0.576
PENGREL13	0.738	0.607	0.711	PSAFBUL36	0.985	1.019	0.518	PENVPHEA55	1.40	1.483	0.473
PENGREL15	0.866	0.820	0.634	PSAFBUL37	0.903	0.900	0.592	PENVMEN57	0.70	0.704	0.726
PENGREL16	0.813	0.785	0.675	PSAFBUL39	1.485	1.565	0.350	PENVMEN58	0.77	0.781	0.706
PENGREL23	0.874	0.820	0.644	PSAFSUB40	0.759	0.874	0.688	PENVDIS59	1.31	1.369	0.567

PENGREL25	1.059	1.108	0.528	PSAFSUB41 B	0.804	0.763	0.592	PENVDIS60	0.84 4	0.736	0.648
				PSAFSUB41	0.746	0.776	0.682	PENVDIS61	0.88 2	0.850	0.638
				PSAFSUB42	0.823	0.850	0.639	PENVDIS61B	0.82 6	0.870	0.685
								PENVDIS61C	1.47 4	1.570	0.393

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SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table E-1. Confirmatory factor analysis of scale items, factor loading, by domain and item in the pilot student survey: 2015**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
F1 BY		0.00	F1 BY		0.00	F1 BY		0.00
SENGCLC1	0.609	0.007	SSAFEMO49	0.657	0.008	SENVPENV100	0.636	0.008
SENGCLC2	0.671	0.006	SSAFEMO52	0.545	0.008	SENVPENV102	0.611	0.008
SENGCLC3	0.538	0.008	SSAFEMO53	0.662	0.007	SENVPENV105	0.680	0.007
SENGCLC4	0.770	0.006	SSAFEMO54	0.807	0.006	SENVPENV106	0.656	0.007
SENGCLC7	0.593	0.008	SSAFEMO56	0.798	0.005	SENVPENV107	0.706	0.007
F2 BY		0.00	SSAFEMO57	0.662	0.007	F2 BY		0.00
SENGREL9	0.769	0.005	F2 BY		0.00	SENVINS111	0.730	0.006
SENGREL11	0.764	0.004	SSAFPSAF60	0.560	0.007	SENVINS113	0.725	0.006
SENGREL12	0.785	0.004	SSAFPSAF63	0.489	0.009	SENVINS114	0.659	0.006
SENGREL14	0.798	0.004	SSAFPSAF65	0.718	0.006	SENVINS115	0.613	0.007
SENGREL15	0.600	0.001	SSAFPSAF67	0.794	0.004	SENVINS121	0.626	0.007
3		0.00	SSAFPSAF68	0.781	0.005	F3 BY		0.00
SENGREL17	0.800	0.004	SSAFPSAF69	0.814	0.004	SENVMEN130	0.785	0.005
SENGREL20	0.670	0.006	SSAFPSAF71	0.721	0.005	SENVMEN132	0.810	0.004
SENGREL21	0.642	0.006	F3 BY		0.00	SENVMEN133	0.783	0.004
SENGREL29	0.590	0.007	SSAFBUL74	0.830	0.004	SENVMEN134	0.540	0.008
BY		0.00	SSAFBUL75	0.839	0.004	SENVMEN137	0.543	0.008
SENGPAR44	0.527	0.008	SSAFBUL76	0.768	0.005	F4 BY		0.00
SENGPAR45	0.530	0.008	SSAFBUL77	0.785	0.008	SENVDIS142	0.615	0.007
SENGPAR46	0.690	0.007	B	0.768	0.000	SENVDIS143	0.731	0.000
SENGPAR47	0.674	0.000	SSAFBUL73	0.768	0.000			



		7			5			6
		0.00			0.00			0.00
SENGPAR48	0.767	6	SSAFBUL83	0.678	7	SENVDIS146	0.732	6
			F4 BY					0.00
BY						SENVDIS147	0.769	5
		0.00			0.00			0.00
F1	0.852	6	SSAFSUB88	0.763	5	SENVDIS147C	0.694	6
		0.00			0.00	F BY		
F2	0.981	5	SSAFSUB91	0.786	5			
		0.00			0.00	F1		0.00
F3	0.748	7	SSAFSUB92	0.785	5		0.730	6
					0.00	F2		0.00
			SSAFSUB93	0.900	3		0.915	4
					0.00	F3		0.00
			SSAFSUB94	0.915	3		0.932	3
			F BY			F4		0.00
							0.914	4
			F1		0.00			
				0.612	8			
			F2		0.00			
				1.000	5			
			F3		0.00			
				0.791	5			
			F4		0.00			
				0.651	7			

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SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table E-2. Confirmatory factor analysis of scale items, factor loading, by domain and item in the instructional staff survey: 2015**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
F1 BY			F1 BY			F1 BY		
		0.02	ISAFEMO5		0.01			0.02
IENGCLC2	0.667	3	2	0.889	3	IENVPENV97	0.777	1
		0.02	ISAFEMO5		0.01			0.01
IENGCLC3	0.698	1	3	0.851	3	IENVPENV98	1.000	7
		0.02	ISAFEMO5		0.01	IENVPENV10		0.02
IENGCLC4	0.694	2	4	0.791	6	0	0.560	7
		0.01	ISAFEMO5		0.01	IENVPENV10		0.02
IENGCLC6	0.815	7	5	0.898	1	1	0.642	5
		0.01	ISAFEMO5		0.01	IENVPENV10		0.02
IENGCLC7	0.758	8	6	0.884	2	2	0.724	1
		0.02	ISAFEMO5		0.02	IENVPENV10		0.02
IENGCLC8	0.723	0	8	0.569	8	3	0.730	1
F2 BY			F2 BY			F2 BY		
		0.01	ISAFPSAF6		0.02			0.02
IENGREL9	0.817	8	0	0.659	3	IENVINS105	0.559	6
		0.01	ISAFPSAF6		0.01			0.01
IENGREL10	0.866	4	1	0.760	9	IENVINS107	0.795	6
		0.02	ISAFPSAF6		0.01			0.01
IENGREL12	0.693	1	2	0.781	8	IENVINS108	0.783	7
		0.02	ISAFPSAF6		0.01			0.02
IENGREL14	0.707	3	4	0.825	7	IENVINS110	0.682	2
		0.02	ISAFPSAF6		0.02			0.02
IENGREL15	0.796	0	6	0.785	0	IENVINS115	0.650	4
			ISAFPSAF6		0.01			0.01
F3 BY			7	0.847	6	IENVINS116	0.734	9
IENGPAR2		0.01						
9	0.817	5	F3 BY			F3 BY		
IENGPAR3		0.01			0.01	IENVPHEA11		0.01
1	0.873	1	ISAFBUL68	0.772	9	9	0.873	2
IENGPAR3		0.01			0.02	IENVPHEA12		0.01
2	0.824	5	ISAFBUL69	0.617	4	0	0.867	2
IENGPAR3		0.01			0.02	IENVPHEA12		0.01
6	0.859	3	ISAFBUL71	0.655	8	1	0.913	0
IENGPAR4		0.01			0.02	IENVPHEA12		0.01
2	0.772	7	ISAFBUL73	0.611	4	2	0.854	4
IENGPAR4		0.02			0.00			
8	0.676	4	ISAFBUL79	0.921	8	F4 BY		
					0.00			0.01
F BY			ISAFBUL80	0.981	5	IENVMEN123	0.793	7

		0.01			0.00			0.01
F1	0.954	4	ISAFBUL81	0.912	7	IENVMEN125	0.892	0
		0.01			0.01			0.00
F2	0.831	7	ISAFBUL82	0.860	0	IENVMEN126	0.916	8
		0.01						0.00
F3	0.859	5	F4 BY			IENVMEN128	0.909	8
					0.01			0.00
			ISAFSUB86	0.858	4	IENVMEN137	0.968	5
					0.01			
			ISAFSUB87	0.907	1	F5 BY		
					0.01			0.01
			ISAFSUB88	0.793	9	IENVDIS129	0.803	6
					0.01			0.02
			ISAFSUB91	0.836	6	IENVDIS130	0.761	0
								0.01
			F BY			IENVDIS134	0.888	0
					0.02			0.00
			F1	0.740	2	IENVDIS134C	0.931	7
					0.02			0.00
			F2	0.776	1	IENVDIS135	0.923	7
					0.02			0.01
			F3	0.804	1	IENVDIS136	0.837	4
					0.02			
			F4	0.622	6	F BY		
								0.01
						F1	0.720	8
								0.01
						F2	0.964	0
								0.01
						F3	0.802	5
								0.01
						F4	0.862	3
								0.01
						F5	0.889	0

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table E-3. Confirmatory factor analysis of scale items, factor loading, by domain and item in the noninstructional staff survey: 2015**

Engagement			Safety			Environment		
Factor	Estimate	S.E.	Factor	Estimate	S.E.	Factor	Estimate	S.E.
F1 BY			F1 BY			F1 BY		
		0.03			0.02			0.05
NENGCLC2	0.728	9	NSAFEMO51	0.879	2	NENVPENV97	0.561	3
		0.03			0.02			0.04
NENGCLC3	0.821	1	NSAFEMO52	0.894	0	NENVPENV98	0.752	6
		0.04			0.02			0.03
NENGCLC4	0.643	8	NSAFEMO53	0.840	5	NENVPENV99	0.778	7
		0.03			0.01	NENVPENV10		0.04
NENGCLC6	0.829	1	NSAFEMO54	0.936	6	0	0.666	7
		0.03			0.02	NENVPENV10		0.03
NENGCLC7	0.719	7	NSAFEMO55	0.857	5	2	0.820	5
		0.03	NSAFEMO14		0.06	NENVPENV10		0.03
NENGCLC8	0.724	9	8	0.406	6	3	1.059	3
F2 BY			F2 BY			F2 BY		
NENGREL1		0.03			0.03			
6	0.809	0	NSAFPSAF57	0.773	2	NENVINS109	0.777	0.04
		0.02			0.02			0.04
NENGREL1	0.833	9	NSAFPSAF58	0.844	4	NENVINS110	0.632	6
		0.03			0.03			0.03
NENGREL1	0.803	3	NSAFPSAF59	0.775	3	NENVINS111	0.824	6
		0.02			0.03			0.03
NENGREL2	0.831	6	NSAFPSAF61	0.811	1	NENVINS140	0.799	3
		0.01			0.03			0.03
NENGREL2	0.915	8	NSAFPSAF63	0.860	1	NENVINS141	0.782	5
		0.03			0.03			
NENGREL3	0.713	9	NSAFPSAF64	0.773	4	F3 BY		
						NENVPHEA11		0.03
F3 BY			F3 BY			5	0.887	1
NENGP3		0.02			0.03	NENVPHEA11		0.02
4	0.877	8	NSAFBUL65	0.740	6	7	0.806	7
		0.03			0.04	NENVPHEA11		0.01
NENGP3	0.747	8	NSAFBUL66	0.638	3	8	0.934	5
		0.03			0.05	NENVPHEA11		0.02
NENGP3	0.780	3	NSAFBUL70	0.556	1	9	0.897	6
		0.02			0.01			
NENGP4	0.842	9	NSAFBUL76	0.923	5	F4 BY		
		0.03			0.01	NENVMEN12		0.01
NENGP4	0.766	7	NSAFBUL77	0.944	2	2	0.921	9
					0.01	NENVMEN12		0.02
F BY			NSAFBUL78	0.945	6	5	0.849	6

F1	0.958	0.02	NSAFBUL79	0.975	0.01	NENVMEN12	0.919	0.02
		0			2	6		1
F2	0.917	0.02	F4 BY			NENVMEN12	0.887	0.02
		1				7		2
F3	0.898	0.02	NSAFSUB83	0.894	0.02	F5 BY		
		9			2			
			NSAFSUB84	0.908	0.01	NENVDIS130	0.827	0.02
					8			6
			NSAFSUB85	0.854	0.02	NENVDIS131	0.788	0.03
					4			1
			NSAFSUB87	0.920	0.01	NENVDIS132	0.842	0.02
					7			6
			NSAFSUB88	0.825	0.02	NENVDIS134	0.839	0.02
					6			3
			F BY			NENVDIS134C	0.816	0.02
								7
			F1	0.618	0.05	NENVDIS135	0.932	0.01
					3			4
			F2	0.884	0.03	NENVDIS136	0.866	0.02
					3			1
			F3	0.781	0.04	NENVDIS137	0.868	0.02
					3			4
			F4	0.527	0.05	F BY		
					4			
						F1	0.653	0.03
								9
						F2	0.928	0.01
								8
						F3	0.853	0.02
								2
						F4	0.922	0.01
								6
						F5	0.938	0.01
								6

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table F-1. Infit, outfit, and point-polyserial statistics, by domain and item (scale items) in the student survey: 2015**

Variable name	Engagement			Variable name	Safety			Variable name	Environment		
	Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial
SENGCLC1	1.138	1.263	0.413	SSAFEMO49	1.08	1.091	0.417	SENVPENV100	1.154	1.242	0.397
SENGCLC2	1.036	1.092	0.469	SSAFEMO52	1.33	1.385	0.288	SENVPENV102	1.153	1.231	0.412
SENGCLC3	1.145	1.191	0.394	SSAFEMO53	1.12	1.136	0.398	SENVPENV105	1.063	1.067	0.450
SENGCLC4	0.910	0.935	0.536	SSAFEMO54	1.06	1.085	0.489	SENVPENV106	1.099	1.094	0.444
SENGCLC7	1.089	1.124	0.452	SSAFEMO56	1.07	1.070	0.462	SENVPENV107	1.030	1.050	0.488
SENGREL9	0.824	0.836	0.599	SSAFEMO57	1.17	1.174	0.392	SENVINS111	0.937	0.946	0.555
SENGREL11	0.822	0.810	0.620	SSAFPSAF60	1.06	1.063	0.444	SENVINS113	0.927	0.930	0.552
SENGREL12	0.812	0.811	0.625	SSAFPSAF63	1.22	1.241	0.372	SENVINS114	1.003	1.019	0.515
SENGREL14	0.787	0.768	0.630	SSAFPSAF65	0.91	0.872	0.558	SENVINS115	1.100	1.084	0.476
SENGREL153	1.012	1.042	0.485	SSAFPSAF67	0.83	0.822	0.634	SENVINS121	1.049	0.994	0.460
SENGREL17	0.773	0.761	0.647	SSAFPSAF68	0.88	0.888	0.599	SENVMEN130	0.842	0.863	0.627
SENGREL20	0.969	0.980	0.536	SSAFPSAF69	0.81	0.811	0.638	SENVMEN132	0.840	0.837	0.626
SENGREL21	1.001	1.001	0.507	SSAFPSAF71	0.91	0.914	0.587	SENVMEN133	0.870	0.861	0.613
SENGREL29	1.018	1.005	0.488	SSAFBUL74	0.95	0.948	0.575	SENVMEN134	1.214	1.317	0.402
SENGPAR44	1.332	1.444	0.352	SSAFBUL75	0.93	0.914	0.579	SENVMEN137	1.169	1.253	0.433
SENGPAR45	1.324	1.457	0.358	SSAFBUL76	0.96	0.980	0.574	SENVDIS142	1.036	0.995	0.490
SENGPAR46	1.042	1.061	0.505	SSAFBUL77B	0.84	0.865	0.601	SENVDIS143	0.908	0.907	0.588
SENGPAR47	1.045	1.025	0.490	SSAFBUL73	0.91	0.935	0.591	SENVDIS146	0.880	0.873	0.601
SENGPAR48	0.937	0.922	0.554	SSAFBUL83	1.04	1.079	0.516	SENVDIS147	0.865	0.865	0.622
				SSAFSUB88	1.04	1.114	0.494	SENVDIS147C	0.961	0.981	0.563

	9		
	0.99	1.016	0.536
SSAFSUB91	8		
	1.02	1.028	0.506
SSAFSUB92	7		
	0.93	0.956	0.562
SSAFSUB93	4		
	0.88	0.880	0.591
SSAFSUB94	9		

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SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table F-2. Infit, outfit, and point-polyserial statistics, by domain and item (scale items) in the instructional staff survey: 2015**

Variable name	Engagement			Variable name	Safety			Variable name	Environment		
	Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial
IENGCLC2	1.187	1.378	0.449	ISAFEMO52	0.846	0.820	0.573	IENVPENV97	1.091	1.706	0.502
IENGCLC3	1.048	1.103	0.510	ISAFEMO53	0.943	0.995	0.571	IENVPENV98	0.800	0.758	0.616
IENGCLC4	1.069	1.065	0.540	ISAFEMO54	1.094	1.084	0.510	IENVPENV100	1.620	1.898	0.327
IENGCLC6	0.849	0.789	0.626	ISAFEMO55	0.821	0.787	0.633	IENVPENV101	1.454	1.515	0.380
IENGCLC7	1.009	1.032	0.608	ISAFEMO56	0.861	0.828	0.581	IENVPENV102	1.302	1.326	0.461
IENGCLC8	1.035	1.039	0.556	ISAFEMO58	1.140	1.207	0.393	IENVPENV103	1.363	1.461	0.465
IENGREL9	1.004	0.987	0.548	ISAFPSAF60	1.248	1.392	0.434	IENVINS105	1.344	1.403	0.449
IENGREL10	0.919	0.905	0.606	ISAFPSAF61	1.073	1.110	0.495	IENVINS107	0.919	0.933	0.622
IENGREL12	1.122	1.140	0.493	ISAFPSAF62	1.028	1.049	0.515	IENVINS108	0.881	0.865	0.629
IENGREL14	1.179	1.197	0.542	ISAFPSAF64	0.900	0.851	0.556	IENVINS110	1.078	1.051	0.540
IENGREL15	0.944	0.899	0.597	ISAFPSAF66	0.960	0.940	0.534	IENVINS115	1.105	1.124	0.487
IENGP2	0.940	0.933	0.646		0.926	0.930	0.629		1.000	0.979	0.588
IENGP9				ISAFPSAF67				IENVINS116			
IENGP1	0.865	0.851	0.687		0.959	0.970	0.573		0.931	0.929	0.621
IENGP3				ISAFBUL68				IENVPHEA119			
IENGP2	0.888	0.889	0.678		1.283	1.296	0.444		1.011	1.006	0.582
IENGP6				ISAFBUL69				IENVPHEA120			
IENGP3	0.886	0.878	0.684		1.022	1.045	0.485		0.898	0.863	0.630
IENGP6				ISAFBUL71				IENVPHEA121			
IENGP4	0.970	0.969	0.624		1.098	1.138	0.465		0.946	0.934	0.608
IENGP2				ISAFBUL73				IENVPHEA122			
IENGP4	1.091	1.142	0.525		0.915	0.843	0.542		0.928	0.869	0.607
IENGP8				ISAFBUL79				IENVMEN123			
				ISAFBUL80	0.877	0.802	0.562	IENVMEN125	0.821	0.810	0.696
				ISAFBUL81	0.867	0.800	0.570	IENVMEN126	0.787	0.778	0.706
				ISAFBUL82	0.877	0.799	0.566	IENVMEN128	0.865	0.879	0.678
				ISAFSUB86	1.088	1.080	0.501	IENVMEN137	0.683	0.673	0.749
				ISAFSUB87	1.070	1.075	0.505	IENVDIS129	0.880	0.841	0.653
				ISAFSUB88	1.105	1.102	0.484	IENVDIS130	0.955	0.922	0.554
				ISAFSUB91	1.070	1.072	0.505	IENVDIS134	0.834	0.855	0.720
								IENVDIS134C	0.805	0.811	0.722
								IENVDIS135	0.769	0.768	0.739
								IENVDIS136	0.811	0.764	0.670

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.



**Table F-3. Infit, outfit, and point-polyserial statistics, by domain and item (scale items) in the noninstructional staff survey: 2015**

Variable name	Engagement			Variable name	Safety			Variable name	Environment		
	Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial		Infit	Outfit	Point-polyserial
NENGCLC2	1.15	1.540	0.537	NSAFEMO51	0.908	0.885	0.533	NENVPENV97	1.827	2.080	0.274
	6										
NENGCLC3	0.86	0.937	0.599	NSAFEMO52	0.949	1.037	0.539	NENVPENV98	1.310	1.449	0.419
	7										
NENGCLC4	1.27	1.316	0.503	NSAFEMO53	1.056	1.085	0.530	NENVPENV99	1.415	1.400	0.410
	8										
NENGCLC6	0.85	0.812	0.632	NSAFEMO54	0.891	0.864	0.597	NENVPENV100	1.657	1.963	0.304
	5										
NENGCLC7	1.09	1.136	0.593	NSAFEMO55	0.974	0.943	0.535	NENVPENV102	1.095	1.086	0.444
	1										
NENGCLC8	1.09	1.106	0.597	NSAFEMO148	1.437	1.507	0.299	NENVPENV103	0.839	0.775	0.602
	0										
NENGREL16	0.86	0.873	0.662	NSAFPSAF57	0.954	0.956	0.535	NENVINS109	1.000	0.984	0.605
	9										
NENGREL17	0.91	0.858	0.650	NSAFPSAF58	0.917	0.908	0.585	NENVINS110	1.293	1.289	0.457
	3										
NENGREL18	0.97	0.906	0.642	NSAFPSAF59	0.953	0.976	0.560	NENVINS111	0.915	0.870	0.592
	2										
NENGREL24	0.94	1.017	0.631	NSAFPSAF61	0.916	0.847	0.558	NENVINS140	0.986	1.015	0.582
	7										
NENGREL25	0.79	0.774	0.698	NSAFPSAF63	0.876	0.829	0.571	NENVINS141	0.887	0.823	0.561
	6										
NENGREL30	1.10	1.081	0.599	NSAFPSAF64	0.969	0.964	0.581	NENVPHEA115	0.868	0.932	0.665
	3										
NENGP34	0.89	0.872	0.715	NSAFBUL65	0.969	1.001	0.522	NENVPHEA117	1.076	1.005	0.533
	8										
NENGP37	1.15	1.207	0.583	NSAFBUL66	1.323	1.345	0.398	NENVPHEA118	0.772	0.672	0.674
	5										
NENGP38	1.05	1.045	0.603	NSAFBUL70	1.120	1.064	0.409	NENVPHEA119	0.897	0.872	0.626
	2										
NENGP44	0.89	0.916	0.666	NSAFBUL76	1.019	1.012	0.484	NENVMEN122	0.807	0.722	0.711
	6										
NENGP47	0.99	0.941	0.594	NSAFBUL77	0.974	0.959	0.500	NENVMEN125	0.934	0.946	0.609
	6										
				NSAFBUL78	0.804	0.734	0.589	NENVMEN126	0.728	0.792	0.744
				NSAFBUL79	0.974	0.982	0.519	NENVMEN127	0.808	0.772	0.697
				NSAFSUB83	0.969	0.959	0.543	NENVDIS130	0.793	0.723	0.703
				NSAFSUB84	1.020	1.025	0.505	NENVDIS131	0.910	0.850	0.610
				NSAFSUB85	1.096	1.119	0.455	NENVDIS132	0.850	0.827	0.664
				NSAFSUB87	1.068	1.097	0.465	NENVDIS134	0.926	0.900	0.670

NSAFSUB88	1.098	1.143	0.462	NENVDIS134C	0.951	1.058	0.652
				NENVDIS135	0.690	0.645	0.760
				NENVDIS136	0.868	0.843	0.675
				NENVDIS137	0.775	0.674	0.700

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SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

Table G-1. DIF measures, by item (scale items) and respondent group in the student survey: 2015

Variable name	Gender		Race		School level		Domain presentation order	
	Male	Female	White	Non-White	Grades 5-8	Grades 9-12	First	Last
SENGCLC1	0.215	0.190	0.358	0.092	0.139	0.245	0.047	0.346
SENGCLC2	0.039	0.178	0.091	0.111	0.074	0.151	0.017	0.213
SENGCLC3	-0.203	-0.316	-0.262	-0.262	-0.374	-0.145	-0.308	-0.213
SENGCLC4	0.146	0.259	0.107	0.265	0.065	0.355	0.239	0.167
SENGCLC7	-0.359	-0.359	-0.319	-0.388	-0.306	-0.419	-0.332	-0.388
SENGREL9	0.469	0.576	0.425	0.584	0.484	0.570	0.548	0.498
SENGREL11	-0.052	-0.052	-0.159	0.009	0.046	-0.162	-0.052	-0.052
SENGREL12	0.082	0.254	0.043	0.246	0.289	0.044	0.172	0.172
SENGREL14	-0.139	-0.238	-0.245	-0.156	-0.335	-0.041	-0.226	-0.151
SENGREL153	-0.222	-0.482	-0.388	-0.334	†	-0.357	-0.428	-0.283
SENGREL17	0.067	0.067	0.067	0.067	0.003	0.136	0.111	0.019
SENGREL20	0.596	0.793	0.592	0.764	0.794	0.592	0.817	0.565
SENGREL21	0.219	0.548	0.363	0.415	0.421	0.362	0.461	0.318
SENGREL29	-0.568	-0.568	-0.527	-0.591	-0.679	-0.453	-0.601	-0.534
SENGPAR44	0.220	-0.047	0.175	0.024	0.081	0.081	0.106	0.053
SENGPAR45	0.034	-0.099	-0.002	-0.059	0.006	-0.082	-0.036	-0.036
SENGPAR46	0.486	0.486	0.628	0.401	0.553	0.411	0.582	0.377
SENGPAR47	-0.685	-0.812	-0.701	-0.783	-0.589	-0.935	-0.782	-0.716
SENGPAR48	-0.290	-0.414	-0.298	-0.387	-0.285	-0.431	-0.353	-0.353
SSAFEMO49	0.379	0.621	0.333	0.611	0.815	0.161	0.276	0.737
SSAFEMO52	0.781	0.725	0.774	0.752	0.828	0.667	0.777	0.725
SSAFEMO53	0.495	0.600	0.502	0.578	0.548	0.548	0.548	0.548
SSAFEMO54	-0.141	-0.082	-0.134	-0.110	-0.065	-0.155	-0.141	-0.077
SSAFEMO56	-0.167	-0.167	-0.212	-0.145	-0.129	-0.207	-0.167	-0.167
SSAFEMO57	-0.415	-0.231	-0.189	-0.403	-0.212	-0.429	-0.344	-0.292
SSAFPSAF60	-0.463	-0.559	-0.628	-0.443	-0.379	-0.652	-0.570	-0.454
SSAFPSAF63	-1.073	-1.138	-1.070	-1.132	-0.939	-1.277	-1.144	-1.068
SSAFPSAF65	-0.763	-0.977	-0.872	-0.872	-1.047	-0.716	-0.898	-0.846
SSAFPSAF67	0.388	0.272	0.214	0.398	0.510	0.132	0.369	0.286
SSAFPSAF68	0.554	0.554	0.316	0.699	0.433	0.694	0.594	0.511
SSAFPSAF69	0.427	0.355	0.272	0.465	0.469	0.305	0.390	0.390
SSAFPSAF71	0.565	0.611	0.474	0.660	0.846	0.307	0.616	0.558
SSAFBUL74	-0.014	-0.097	-0.121	-0.023	0.123	-0.246	-0.056	-0.056
SSAFBUL75	-0.178	-0.248	-0.245	-0.214	-0.083	-0.350	-0.242	-0.184
SSAFBUL76	0.055	0.055	0.022	0.055	0.285	-0.190	0.055	0.055
SSAFBUL77B	0.102	0.053	0.077	0.077	†	0.077	0.098	0.054
SSAFBUL73	0.457	0.583	0.521	0.521	0.803	0.213	0.521	0.521
SSAFBUL83	0.633	0.864	0.695	0.782	0.777	0.714	0.794	0.697

SSAFSUB88	-0.448	-0.596	-0.336	-0.642	-0.906	-0.180	-0.524	-0.524
SSAFSUB91	-0.274	-0.460	-0.278	-0.425	-0.602	-0.145	-0.343	-0.398

**Table G-1. DIF measures, by item (scale items) and respondent group in the student survey: 2015 - continued**

Variable name	Gender		Race		School level		Domain presentation order	
	Male	Female	White	Non-White	Grades 5-8	Grades 9-12	First	Last
SSAFSUB92	-0.611	-0.611	-0.335	-0.786	-0.929	-0.327	-0.611	-0.611
SSAFSUB93	-0.200	-0.111	0.094	-0.305	-0.637	0.329	-0.091	-0.225
SSAFSUB94	-0.097	-0.006	0.032	-0.101	-0.473	0.390	-0.007	-0.099
SENVPEN100	1.117	0.979	0.838	1.171	1.157	0.924	1.003	1.094
SENVPEN102	0.613	0.932	0.823	0.745	0.713	0.839	0.664	0.889
SENVPEN105	-0.212	-0.271	-0.319	-0.200	-0.032	-0.471	-0.283	-0.199
SENVPEN106	-0.158	-0.259	-0.067	-0.295	-0.086	-0.342	-0.210	-0.189
SENVPEN107	0.358	0.358	0.389	0.358	0.398	0.314	0.358	0.358
SENVINS111	-0.174	-0.174	-0.174	-0.174	-0.152	-0.197	-0.214	-0.131
SENVINS113	-0.252	-0.309	-0.363	-0.233	-0.119	-0.452	-0.368	-0.187
SENVINS114	0.084	-0.009	0.038	0.038	0.114	-0.042	0.038	0.059
SENVINS115	-0.581	-0.691	-0.393	-0.787	-0.880	-0.410	-0.637	-0.637
SENVINS121	-1.340	-1.547	-1.324	-1.519	-1.648	-1.254	-1.539	-1.342
SENVMEN130	-0.281	-0.343	-0.381	-0.272	-0.369	-0.255	-0.312	-0.291
SENVMEN132	-0.342	-0.342	-0.411	-0.303	-0.282	-0.404	-0.342	-0.342
SENVMEN133	-0.222	-0.222	-0.302	-0.179	-0.222	-0.222	-0.222	-0.222
SENVMEN134	1.231	1.486	1.280	1.407	1.472	1.214	1.527	1.176
SENVMEN137	0.921	0.968	0.909	0.967	0.986	0.898	1.007	0.876
SENVDIS142	-0.663	-0.765	-0.751	-0.716	-0.813	-0.617	-0.716	-0.716
SENVDIS143	-0.057	-0.057	-0.033	-0.057	-0.187	0.078	-0.018	-0.101
SENVDIS146	-0.072	-0.025	0.004	-0.080	-0.161	0.069	0.018	-0.122
SENVDIS147	-0.046	0.077	0.108	-0.034	-0.114	0.153	0.092	-0.068
SENVDIS147C	0.130	0.172	0.131	0.152	0.152	0.152	0.216	0.080

† Not applicable.

NOTE: White category excludes persons of Hispanic ethnicity.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table G-2. DIF measures, by item (scale items) and respondent group in the instructional staff survey: 2015**

Variable name	Gender		Race		Special education		Years working at school	
	Male	Female	White	Non-White	Yes	No	3 years or less	> 3 years
IENGCLC2	-0.239	-0.464	-0.427	-0.181	-0.442	-0.351	-0.522	-0.329
IENGCLC3	-0.637	-0.704	-0.707	-0.551	-0.650	-0.726	-0.541	-0.754
IENGCLC4	-0.012	0.135	0.089	0.304	-0.052	0.241	0.031	0.116
IENGCLC6	-1.074	-1.074	-1.074	-1.042	-1.040	-1.117	-1.252	-0.990
IENGCLC7	0.307	0.462	0.422	0.242	0.347	0.511	0.453	0.422
IENGCLC8	-0.022	0.146	0.129	-0.181	0.116	0.092	0.301	-0.011
IENGREL9	-0.383	-0.383	-0.383	-0.205	-0.310	-0.466	-0.303	-0.423
IENGREL10	-0.238	-0.354	-0.317	-0.277	-0.317	-0.317	-0.276	-0.337
IENGREL12	-0.143	-0.483	-0.379	-0.339	-0.573	-0.168	-0.652	-0.251
IENGREL14	0.342	0.370	0.370	0.370	0.434	0.309	0.430	0.341
IENGREL15	-0.732	-0.775	-0.775	-0.596	-0.775	-0.775	-0.709	-0.807
IENGP29	0.502	0.433	0.455	0.260	0.482	0.423	0.400	0.481
IENGP31	0.672	0.710	0.744	0.384	0.656	0.754	0.617	0.753
IENGP32	1.360	1.222	1.257	1.314	1.307	1.210	1.333	1.221
IENGP36	1.071	0.951	1.017	0.724	0.956	1.015	0.867	1.048
IENGP42	0.481	0.635	0.550	0.955	0.718	0.462	0.618	0.589
IENGP48	-1.320	-0.828	-0.973	-0.973	-0.829	-1.116	-0.762	-1.076
ISAFEMO52	-0.415	-0.324	-0.374	-0.226	-0.397	-0.298	-0.379	-0.348
ISAFEMO53	0.440	0.539	0.510	0.592	0.399	0.627	0.268	0.620
ISAFEMO54	0.333	0.304	0.304	0.369	0.326	0.278	0.146	0.377
ISAFEMO55	-0.225	-0.200	-0.200	-0.142	-0.221	-0.179	-0.373	-0.118
ISAFEMO56	-0.027	-0.313	-0.275	0.073	-0.289	-0.175	-0.372	-0.162
ISAFEMO58	-1.019	-0.562	-0.662	-0.970	-0.726	-0.663	-0.345	-0.873
ISAFPSAF60	0.738	0.983	0.914	0.914	1.046	0.776	1.086	0.832
ISAFPSAF61	0.395	0.395	0.422	0.157	0.416	0.395	0.395	0.395
ISAFPSAF62	0.524	0.354	0.435	0.123	0.422	0.402	0.548	0.331
ISAFPSAF64	-0.842	-0.966	-0.909	-1.130	-0.847	-1.007	-0.903	-0.930
ISAFPSAF66	-1.043	-0.894	-0.935	-1.122	-0.837	-1.039	-1.038	-0.885
ISAFPSAF67	1.081	1.195	1.137	1.298	1.259	1.057	1.287	1.102
ISAFBUL68	1.304	1.627	1.566	1.333	1.533	1.508	1.571	1.533
ISAFBUL69	1.779	1.779	1.803	1.672	1.679	1.878	1.547	1.889
ISAFBUL71	0.524	0.125	0.240	0.201	0.207	0.270	0.383	0.171
ISAFBUL73	-0.366	-0.602	-0.488	-0.726	-0.627	-0.421	-0.472	-0.557
ISAFBUL79	-1.050	-1.385	-1.318	-0.988	-1.257	-1.312	-1.181	-1.336
ISAFBUL80	-1.027	-1.249	-1.233	-0.826	-1.184	-1.184	-1.184	-1.184
ISAFBUL81	-1.016	-1.176	-1.130	-1.052	-1.130	-1.130	-1.167	-1.130
ISAFBUL82	-0.789	-1.166	-1.055	-1.093	-1.101	-0.998	-1.116	-1.027
ISAFSUB86	0.276	0.436	0.393	0.324	0.373	0.416	0.501	0.342
ISAFSUB87	0.304	0.475	0.429	0.501	0.463	0.382	0.400	0.429
ISAFSUB88	0.094	0.240	0.168	0.441	0.256	0.134	0.232	0.202
ISAFSUB91	0.208	0.261	0.261	0.234	0.212	0.306	0.322	0.232

IENVPENV97	-0.673	-0.714	-0.714	-0.588	-0.769	-0.642	-0.840	-0.659
IENVPENV98	-0.574	-0.675	-0.644	-0.644	-0.644	-0.644	-0.804	-0.574

**Table G-2. DIF measures, by item (scale items) and respondent group in the instructional staff survey: 2015 - continued**

Variable name	Gender		Race		Special education		Years working at school	
	Male	Female	White	Non-White	Yes	No	3 years or less	> 3 years
IENVPENV100	0.141	0.045	0.106	-0.233	0.020	0.133	-0.220	0.190
IENVPENV101	0.154	0.080	0.080	0.000	0.102	0.080	0.107	0.080
IENVPENV102	0.144	0.209	0.203	0.008	0.127	0.250	0.345	0.107
IENVPENV103	0.613	0.413	0.464	0.352	0.391	0.555	0.508	0.464
IENVINS105	1.249	1.327	1.302	1.471	1.512	1.073	1.600	1.166
IENVINS107	0.999	0.866	0.904	0.831	0.794	1.012	0.673	1.004
IENVINS108	-0.309	-0.028	-0.105	-0.001	-0.052	-0.164	0.027	-0.164
IENVINS110	-0.665	-0.847	-0.788	-0.757	-0.886	-0.692	-0.788	-0.788
IENVINS115	-0.995	-1.198	-1.194	-0.704	-1.064	-1.211	-0.793	-1.293
IENVINS116	-0.536	-0.205	-0.301	-0.267	-0.219	-0.381	-0.003	-0.442
IENVPHEA119	0.013	0.120	0.096	0.030	0.016	0.191	0.036	0.123
IENVPHEA120	0.184	0.098	0.155	-0.107	-0.046	0.304	0.086	0.130
IENVPHEA121	0.129	-0.222	-0.109	-0.214	-0.191	-0.025	-0.157	-0.089
IENVPHEA122	0.283	0.117	0.179	-0.019	0.127	0.187	0.038	0.209
IENVMEN123	-0.446	-0.411	-0.411	-0.316	-0.379	-0.442	-0.411	-0.411
IENVMEN125	0.296	0.341	0.341	0.498	0.314	0.365	0.371	0.341
IENVMEN126	0.136	0.343	0.290	0.490	0.335	0.227	0.371	0.254
IENVMEN128	0.463	0.781	0.665	0.926	0.717	0.640	0.689	0.689
IENVMEN137	0.147	0.302	0.241	0.345	0.374	0.138	0.170	0.308
IENVDIS129	-0.374	-0.575	-0.515	-0.515	-0.489	-0.557	-0.371	-0.581
IENVDIS130	-1.221	-1.411	-1.362	-1.332	-1.362	-1.362	-1.418	-1.337
IENVDIS134	0.506	0.592	0.564	0.470	0.531	0.564	0.417	0.629
IENVDIS134C	0.425	0.583	0.537	0.615	0.651	0.413	0.537	0.537
IENVDIS135	0.526	0.650	0.613	0.583	0.647	0.580	0.548	0.642
IENVDIS136	-0.556	-0.631	-0.598	-0.733	-0.538	-0.672	-0.644	-0.578

NOTE: White category excludes persons of Hispanic ethnicity.  
SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.

**Table G-3. DIF measures, by item (scale items) and respondent group in the noninstructional staff survey: 2015**

Variable name	Gender		Race		Special education		Years working at school	
	Male	Female	White	Non-White	Yes	No	3 years or less	> 3 years
NENGCLC2	-0.273	-0.417	-0.365	-0.505	-0.417	-0.477	-0.666	-0.289
NENGCLC3	-0.295	-0.684	-0.733	-0.434	-0.475	-0.816	-0.605	-0.605
NENGCLC4	0.542	0.187	0.509	-0.100	0.125	0.360	0.020	0.401
NENGCLC6	-0.857	-0.897	-0.725	-1.111	-0.844	-0.974	-0.736	-0.983
NENGCLC7	-0.151	-0.047	0.004	-0.175	-0.136	0.087	0.042	-0.095
NENGCLC8	-0.409	0.009	0.019	-0.224	-0.166	-0.051	0.088	-0.236
NENGREL16	-0.563	-0.168	-0.436	0.002	-0.180	-0.313	-0.230	-0.230
NENGREL17	0.227	-0.227	-0.153	-0.179	-0.153	-0.060	-0.328	-0.060
NENGREL18	0.203	0.002	0.007	0.112	0.211	-0.142	-0.172	0.146
NENGREL24	-0.761	-0.552	-0.580	-0.584	-0.440	-0.703	-0.552	-0.552
NENGREL25	0.080	0.176	0.029	0.398	0.286	0.068	0.086	0.226
NENGREL30	0.026	-0.204	-0.349	0.197	-0.067	-0.288	0.287	-0.396
NENGP34	0.946	0.914	0.895	0.946	1.014	0.880	1.024	0.903
NENGP37	-0.080	0.672	0.628	0.411	0.449	0.632	0.424	0.544
NENGP38	1.985	1.612	1.632	1.752	1.366	2.006	1.649	1.680
NENGP44	0.517	0.594	0.567	0.594	0.594	0.594	0.594	0.594
NENGP47	-1.213	-1.011	-0.992	-1.116	-1.226	-0.839	-0.844	-1.142
NSAFEMO51	-0.399	-0.104	-0.398	0.220	0.098	-0.429	0.131	-0.306
NSAFEMO52	-0.070	0.467	0.284	0.473	0.486	0.266	0.246	0.452
NSAFEMO53	-0.056	0.420	0.369	0.302	0.276	0.389	0.150	0.438
NSAFEMO54	-0.235	-0.032	-0.155	0.100	-0.054	-0.100	-0.240	0.042
NSAFEMO55	-0.186	-0.213	-0.407	0.082	-0.128	-0.303	-0.213	-0.213
NSAFEMO148	-1.125	-0.260	-0.311	-0.568	-0.760	-0.048	-0.267	-0.519
NSAFPSAF57	0.882	0.909	0.765	1.148	0.972	0.820	1.060	0.824
NSAFPSAF58	0.118	-0.189	0.089	-0.451	-0.291	0.023	-0.352	0.007
NSAFPSAF59	0.122	0.122	0.122	0.029	0.057	0.193	-0.100	0.241
NSAFPSAF61	-0.984	-0.909	-0.783	-1.151	-0.824	-1.033	-1.016	-0.850
NSAFPSAF63	-0.697	-0.770	-0.723	-0.783	-0.581	-0.921	-0.723	-0.723
NSAFPSAF64	1.051	0.906	0.858	1.066	0.968	0.908	1.068	0.874
NSAFBUL65	1.211	1.269	1.236	1.258	1.343	1.142	1.236	1.236
NSAFBUL66	1.464	1.325	1.553	0.998	1.178	1.505	1.022	1.495
NSAFBUL70	-0.311	-0.640	-0.435	-0.861	-0.725	-0.428	-0.574	-0.574
NSAFBUL76	-0.538	-0.757	-0.710	-0.689	-0.656	-0.766	-0.566	-0.789
NSAFBUL77	-0.726	-0.920	-0.860	-0.893	-0.893	-0.893	-0.867	-0.893
NSAFBUL78	-0.934	-1.055	-1.013	-1.114	-1.173	-0.933	-0.912	-1.138
NSAFBUL79	-0.480	-0.826	-0.751	-0.717	-0.782	-0.716	-0.828	-0.710
NSAFSUB83	0.420	0.163	0.126	0.346	0.286	0.147	0.367	0.127
NSAFSUB84	0.556	0.311	0.477	0.135	0.383	0.340	0.444	0.280
NSAFSUB85	0.353	0.052	0.168	0.024	0.030	0.198	0.074	0.099
NSAFSUB87	0.394	0.306	0.264	0.306	0.418	0.224	0.437	0.232
NSAFSUB88	0.480	0.365	0.365	0.365	0.250	0.460	0.540	0.258

NENVPENV97	0.459	0.214	0.579	-0.169	0.026	0.532	0.299	0.237
NENVPENV98	-0.280	-0.363	-0.323	-0.431	-0.383	-0.267	-0.355	-0.323

**Table G-3. DIF measures, by item (scale items) and respondent group in the noninstructional staff survey: 2015 - continued**

Variable name	Gender		Race		Special education		Years working at school	
	Male	Female	White	Non-White	Yes	No	3 years or less	> 3 years
NENVPENV99	0.371	-0.057	0.178	-0.087	0.047	0.053	0.157	-0.048
NENVPENV100	0.524	-0.079	0.040	0.098	-0.016	0.125	0.322	-0.108
NENVPENV102	-0.396	-0.489	-0.489	-0.541	-0.537	-0.416	-0.703	-0.384
NENVPENV103	-0.757	-0.595	-0.738	-0.566	-0.563	-0.743	-0.739	-0.599
NENVINS109	0.019	-0.478	-0.552	0.006	-0.303	-0.303	0.147	-0.555
NENVINS110	0.196	0.654	0.401	0.800	0.562	0.469	0.763	0.391
NENVINS111	-0.197	0.394	0.179	0.388	0.345	0.174	0.557	0.099
NENVINS140	-0.609	-0.944	-1.074	-0.596	-0.771	-0.985	-0.720	-0.993
NENVINS141	-1.315	-1.607	-1.405	-1.646	-1.514	-1.598	-1.679	-1.426
NENVPHEA115	0.116	0.339	0.336	0.226	0.327	0.254	0.091	0.389
NENVPHEA117	0.142	0.027	0.356	-0.419	0.169	-0.103	0.061	0.027
NENVPHEA118	0.047	0.047	0.200	-0.196	-0.131	0.260	-0.275	0.204
NENVPHEA119	0.133	0.531	0.733	0.000	0.226	0.704	-0.151	0.728
NENVMEN122	0.459	0.570	0.309	0.812	0.711	0.350	0.650	0.482
NENVMEN125	1.000	0.874	0.850	0.874	0.874	0.874	0.787	0.921
NENVMEN126	0.679	0.855	0.788	0.818	0.770	0.904	0.634	0.914
NENVMEN127	-0.240	-0.098	-0.453	0.260	-0.071	-0.240	0.119	-0.256
NENVDIS130	-0.168	-0.266	-0.199	-0.335	-0.293	-0.233	-0.190	-0.256
NENVDIS131	-0.978	-1.137	-1.199	-0.937	-0.951	-1.283	-1.114	-1.114
NENVDIS132	-0.328	-0.815	-0.618	-0.769	-0.701	-0.765	-0.652	-0.725
NENVDIS134	0.718	0.678	0.678	0.719	0.678	0.623	0.605	0.717
NENVDIS134C	0.232	0.804	0.713	0.660	0.663	0.753	0.684	0.713
NENVDIS135	0.243	0.156	0.196	0.134	0.100	0.263	0.296	0.143
NENVDIS136	0.593	0.732	0.652	0.833	0.732	0.691	0.616	0.791
NENVDIS137	-0.306	-0.116	-0.296	0.055	-0.072	-0.200	-0.261	-0.041

NOTE: White category excludes persons of Hispanic ethnicity.

SOURCE: ED School Climate Surveys (EDSCLS), Pilot Study, 2015.