

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 EDSCS 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. EDSCS support staff installed PDF copies of the User Guide on the desktop of each device and set the browser home page to the EDSCS 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 EDSCS pilot test data were collected through each of the 16 sites that hosted the EDSCS 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 EDSCS 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 EDSCS 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 EDSCS 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). 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 completed¹ by approximately 17,630 students in 43 schools². About 990 teachers completed

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

² 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 survey³. The parent survey was completed by 240 parents in eight schools.

The survey completion rate⁴ 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).⁵ The respondent demographics by survey are shown in table 3.

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

⁴ 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.

⁵ 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 loading⁶ 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).

⁶ 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);^{3sw}
- 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.⁷

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

⁷ 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

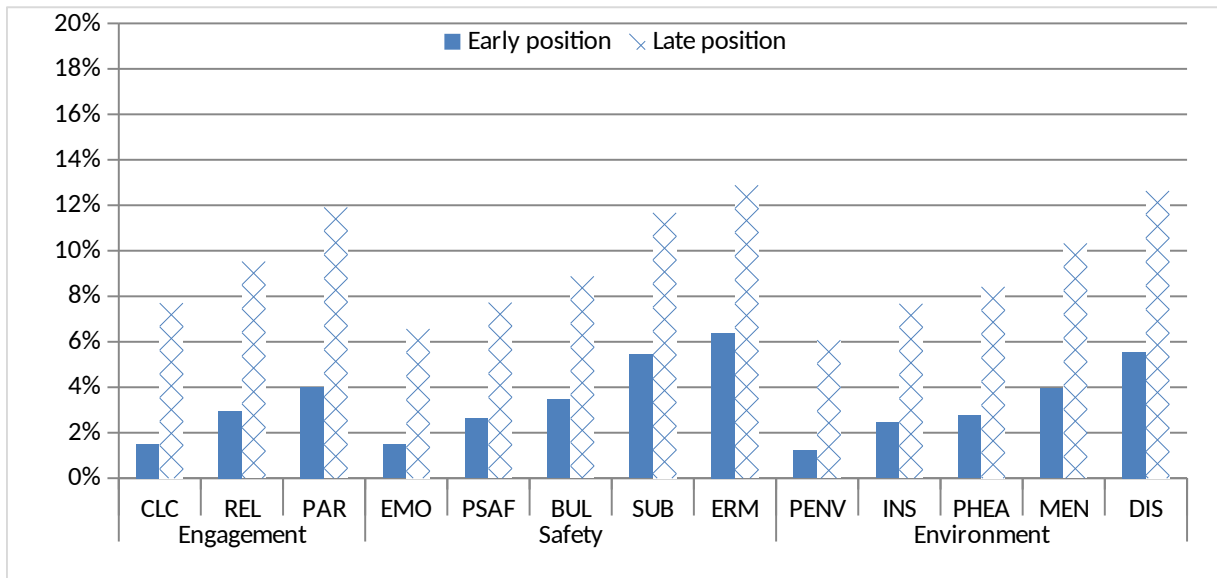
For each item, the item nonresponse rate (omitted or not reached) and the percentage of responses in each category, factor loading to the underlying construct, point-polyserial correlation with the total raw score, and infit/outfit values were checked using the criteria in table 4.

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. ¹ | 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. ¹ | 0.497 |
| SSAFPSAF63 | I sometimes stay home because I don't feel safe at this school. ¹ | 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. ¹ | 0.248 |
| SENVINS108 | Other students often disrupt class. ¹ | 0.195 |
| SENVINS109 | I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. ¹ | 0.125 |
| SENVPHEA125 | How often do you eat breakfast on school days? | 0.404 |
| SENVPHEA126 | How often do you eat candy at school? ¹ | 0.286 |
| SENVPHEA127 | How often do you drink soda at school? ¹ | 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 |
| SEVMEN135 | Students at this school give up when they can't solve a problem easily. ¹ | 0.256 |
| SEVMEN136 | Students at this school think it's ok to fight if someone insults them. ¹ | 0.367 |
| SENVDIS147B | School rules for behavior are strict. | 0.434 |

¹This 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. ¹ | 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. ¹ | 0.192 |
| SENVINS108 | Other students often disrupt class. ¹ | 0.166 |
| SENVINS109 | I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. ¹ | 0.118 |
| SENVPHEA125 | How often do you eat breakfast on school days? | 0.201 |
| SENVPHEA126 | How often do you eat candy at school? ¹ | 0.141 |
| SENVPHEA127 | How often do you drink soda at school? ¹ | 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. ¹ | 0.237 |

¹This 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. ¹ | 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. ¹ | 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? ¹ | 1.277 | 1.692 |
| SSAFSUB85 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ¹ | 1.208 | 1.602 |
| SSAFSUB87 | Students use/try tobacco products while at school or school-sponsored events. ¹ | 1.125 | 1.304 |
| SENVENV104 | Overcrowding is a problem at this school. ¹ | 1.292 | 1.419 |
| SENVINS108 | Other students often disrupt class. ¹ | 1.292 | 1.501 |
| SENVINS109 | I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. ¹ | 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? ¹ | 1.432 | 1.638 |
| SENVPHEA127 | How often do you drink soda at school? ¹ | 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. ¹ | 1.226 | 1.333 |
| SENVMEN136 | Students at this school think it's ok to fight if someone insults them. ¹ | 1.154 | 1.359 |

¹These 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 ¹ | Decision ² |
|---------------|---|-------------------|-----------------------|
| 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. ³ | 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 ¹ | Decision ² |
|---------------|---|-------------------|-----------------------|
| 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. ³ | FL/IO | n |
| SSAFPSAF62 | Students at this school are often threatened. ³ | | n |
| SSAFPSAF63 | I sometimes stay home because I don't feel safe at this school. ³ | | y-PSAF |
| SSAFPSAF65 | Students at this school carry guns or knives to school. ³ | | y-PSAF |
| SSAFPSAF66 | Students at this school belong to gangs. ³ | | n |
| SSAFPSAF67 | Students at this school threaten to hurt other students. ³ | | y-PSAF |
| SSAFPSAF68 | Students at this school steal money, electronics, or other valuable things while at school. ³ | | y-PSAF |
| SSAFPSAF69 | Students at this school damage or destroy other students' property. ³ | | y-PSAF |
| SSAFPSAF70 | Students at this school damage or destroy school property. ³ | | n |
| SSAFPSAF71 | Students at this school fight a lot. ³ | | y-PSAF |
| SSAFBUL72 | Students at this school are often teased or picked on. ³ | | n |
| SSAFBUL74 | Students at this school are teased or picked on about their race or ethnicity. ³ | | y-BUL |
| SSAFBUL75 | Students at this school are teased or picked on about their cultural background or religion. ³ | | y-BUL |
| SSAFBUL76 | Students at this school are teased or picked on about their physical or mental disability. ³ | | y-BUL |

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

| Variable name | Description | Flag ¹ | Decision ² |
|---------------|---|-------------------|-----------------------|
| SSAFBUL77 | Students at this school are teased or picked on about their real or perceived sexual behavior. ³ | | n |
| SSAFBUL77B | Students at this school are teased or picked on about their real or perceived sexual orientation. ³ | | y-BUL |
| SSAFBUL81 | Students at this school say mean things to other students when they think the other students deserve it. ³ | | n |
| SSAFBUL73 | Students at this school are often bullied. ³ | | 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). ³ | | n |
| SSAFBUL83 | Students often spread mean rumors or lies about others at this school on the internet (i.e., Facebook™, email, and instant message). ³ | | 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? ³ | IO | n |
| SSAFSUB85 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ³ | IO | n |
| SSAFSUB86 | At this school, how much of a problem is student alcohol use? ³ | | n |
| SSAFSUB87 | Students use/try tobacco products while at school or school-sponsored events. ³ | IO | n |
| SSAFSUB88 | Students use/try alcohol or drugs while at school or school-sponsored events. ³ | | y-SUB |
| SSAFSUB89 | Students buy or sell drugs, alcohol, or tobacco products while at school or school-sponsored events. ³ | | n |
| SSAFSUB90 | Students are sometimes distracted in class because they are drunk or high. ³ | | n |
| SSAFSUB91 | It is easy for students to use/try alcohol or drugs at school or school-sponsored events without getting caught. ³ | | y-SUB |
| SSAFSUB92 | Students at this school think it is okay to smoke one or more packs of cigarettes a day. ³ | | y-SUB |
| SSAFSUB93 | Students at this school think it is okay to get drunk. ³ | | y-SUB |
| SSAFSUB94 | Students at this school think it is okay to try drugs. ³ | | 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 ¹ | Decision ² |
|---------------|---|-------------------|-----------------------|
| 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. ³ | 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. ³ | FL/PP/ IO | n |
| SENVINS109 | I get distracted from doing schoolwork in my classes because other students are misbehaving, for example, talking or fighting. ³ | 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? ³ | FL/PP/ IO | n |
| SENVPHEA127 | How often do you drink soda at school? ³ | 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 ¹ | Decision ² |
|---------------|--|-------------------|-----------------------|
| SENVMEN135 | Students at this school give up when they can't solve a problem easily. ³ | FL/PP/ IO | n |
| SENVMEN136 | Students at this school think it's ok to fight if someone insults them. ³ | 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 |

¹ 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.

² 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).

³ 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> ¹ | 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) ¹ | 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> ¹ | 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) ¹ | 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 |

¹ 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 ¹ | 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 |

¹ 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.

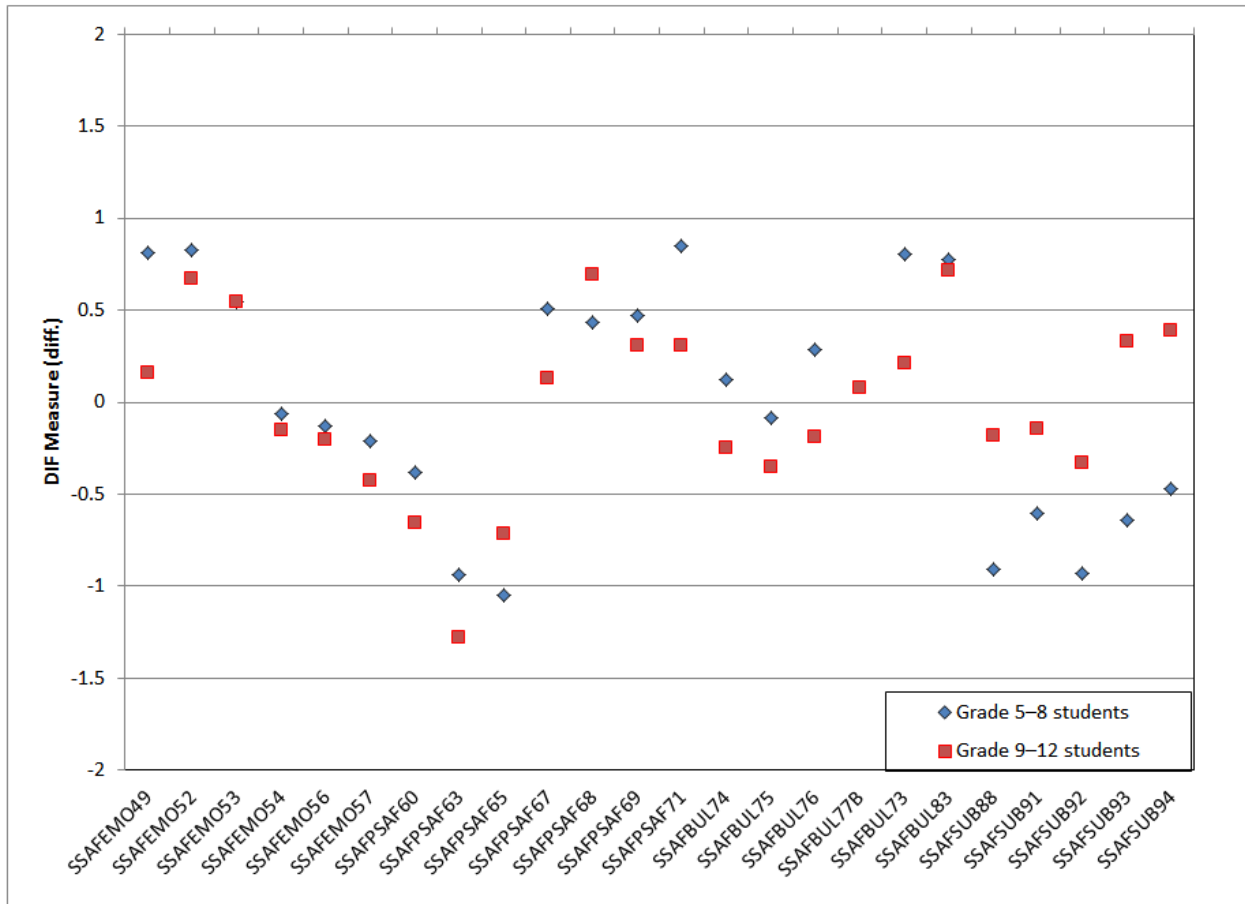
Item fits

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 |

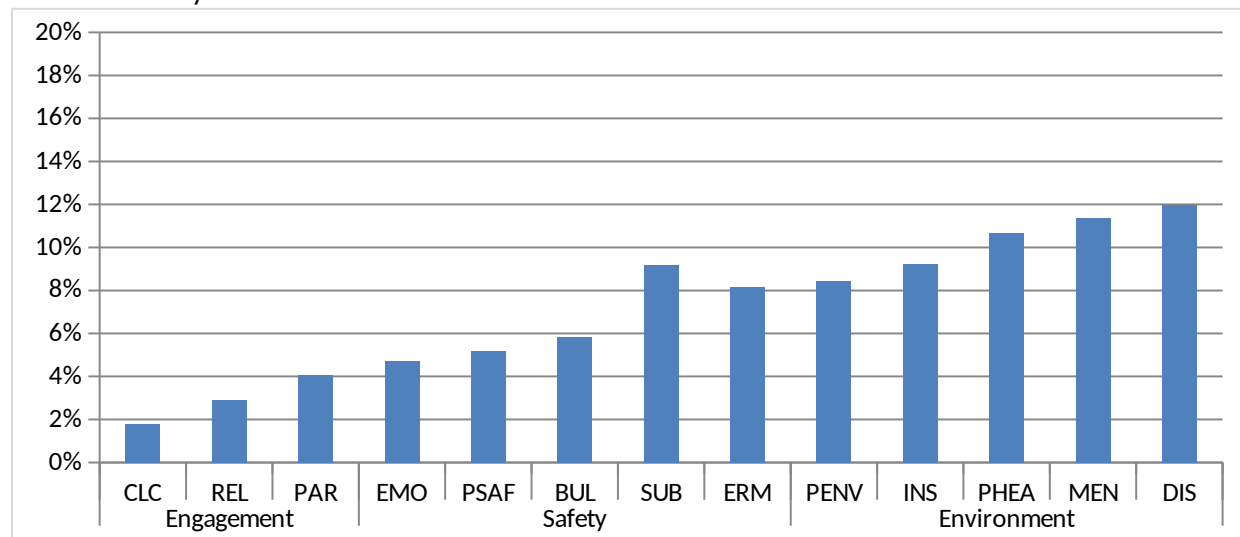
Instructional staff item analysis

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. ¹ | 0.348 |
| IENVINS104 | The students in my class(es) attend class regularly. | 0.477 |

¹This 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? ¹ | 0.261 |
| IENVPENV99 | Overcrowding is a problem at this school. ¹ | 0.196 |

¹This 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. ¹ | 1.284 | 1.447 |
| ISAFSUB84B | At this school, how much of a problem is student use of electronic cigarettes? ¹ | 1.390 | 2.002 |
| ISAFSUB84 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ¹ | 1.497 | 2.043 |
| ISAFSUB85 | At this school, how much of a problem is student alcohol use? ¹ | 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. ¹ | 1.804 | 2.028 |
| IENVPENV100 | My teaching is hindered by poor heating, cooling, and/or lighting systems at this school. ¹ | 1.629 | 1.997 |
| IENVPENV101 | My teaching is hindered by a lack of instructional space (e.g., classrooms) at this school. ¹ | 1.454 | 1.517 |
| IENVPENV102 | My teaching is hindered by a lack of textbooks and basic supplies at this school. ¹ | 1.331 | 1.359 |
| IENVPENV103 | My teaching is hindered by inadequate or outdated equipment or facilities at this school. ¹ | 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 |

¹This 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 ¹ | Decision ² |
|---------------|--|-------------------|-----------------------|
| 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 ¹ | Decision ² |
|---------------|---|-------------------|-----------------------|
| 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. ³ | IO | y-PSAF |
| ISAFPSAF61 | The following types of problems occur at this school often: robbery or theft. ³ | | y-PSAF |
| ISAFPSAF62 | The following types of problems occur at this school often: vandalism. ³ | | 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. ³ | | n |
| ISAFPSAF64 | The following types of problems occur at this school often: student possession of weapons. ³ | | y-PSAF |
| ISAFPSAF65 | The following types of problems occur at this school often: student gang activities. ³ | | n |
| ISAFPSAF66 | The following types of problems occur at this school often: physical abuse of teachers. ³ | | y-PSAF |
| ISAFPSAF67 | The following types of problems occur at this school often: student verbal abuse of teachers. ³ | | y-PSAF |
| ISAFBUL68 | I think that bullying is a frequent problem at this school. ³ | | y-BUL |
| ISAFBUL69 | I think that cyberbullying is a frequent problem among students at this school. ³ | | y-BUL |
| ISAFBUL70 | I think that racial/ethnic tension or discrimination among students is a frequent problem at this school. ³ | | 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 ¹ | Decision ² |
|---------------|--|-------------------|-----------------------|
| 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. ³ | | y-BUL |
| ISAFBUL80 | Staff at this school are teased or picked on about their cultural background or religion. ³ | | y-BUL |
| ISAFBUL81 | Staff at this school are teased or picked on about their physical or mental disability. ³ | | y-BUL |
| ISAFBUL82 | Staff at this school are teased or picked on about their sexuality. ³ | | y-BUL |
| ISAFSUB83 | At this school, how much of a problem is student drug use? ³ | | y |
| ISAFSUB84B | At this school, how much of a problem is student use of electronic cigarettes? ³ | PP/IO | y |
| ISAFSUB84 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ³ | IO | y |
| ISAFSUB85 | At this school, how much of a problem is student alcohol use? ³ | 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 ¹ | Decision ² |
|---------------|--|-------------------|-----------------------|
| IENVPENV99 | Overcrowding is a problem at this school. ³ | FL/PP/ IO | n |
| IENVPENV100 | My teaching is hindered by poor heating, cooling, and/or lighting systems at this school. ³ | IO | y-PENV |
| IENVPENV101 | My teaching is hindered by a lack of instructional space (e.g., classrooms) at this school. ³ | IO | y-PENV |
| IENVPENV102 | My teaching is hindered by a lack of textbooks and basic supplies at this school. ³ | IO | y-PENV |
| IENVPENV103 | My teaching is hindered by inadequate or outdated equipment or facilities at this school. ³ | 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 ¹ | Decision ² |
|---------------|---|-------------------|-----------------------|
| 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 |

¹ 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.

² 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).

³ 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 EDSCLS 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. EDSCLS 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 NSAFPSAF |
| | 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

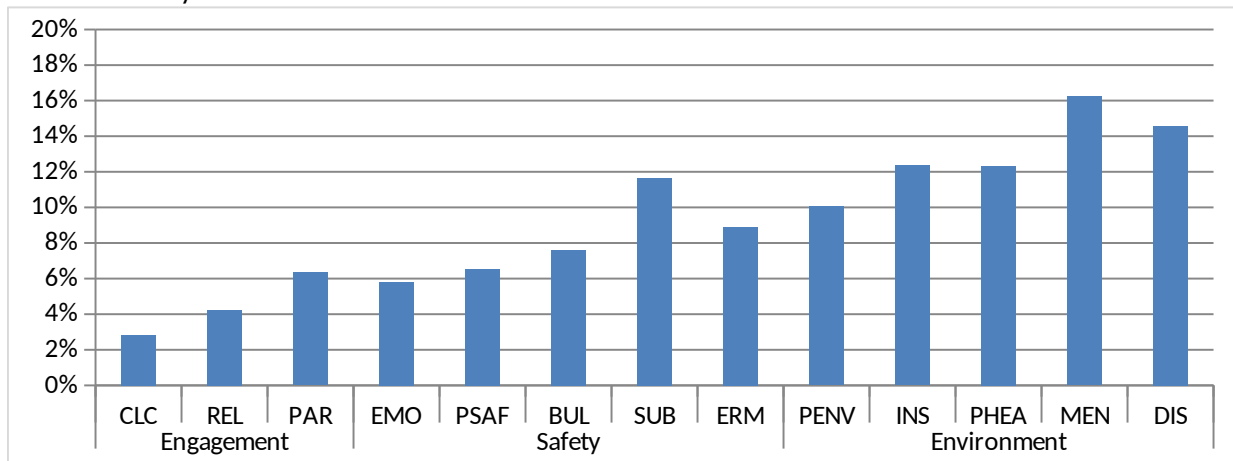
For the items in the noninstructional staff survey, the item nonresponse rate (omitted or not reached), percentage distribution of responses within each response category, factor loading to the underlying construct, point-polyserial correlation with the total raw score, and infit/outfit values were evaluated 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? ¹ | 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. ¹ | 0.126 |

¹This 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? ¹ | 0.201 |
| NENVPENV97 | My work is hindered by poor heating, cooling, and/or lighting systems at this school. ¹ | 0.268 |
| NENVPENV100 | My work is hindered by inadequate or outdated equipment or facilities at this school. ¹ | 0.300 |
| NENVINS108 | We have so many different programs at this school that I can't keep track of them all. ¹ | 0.115 |

¹This 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? ¹ | 1.21 3 | 1.981 |
| NSAFSUB81B | At this school, how much of a problem is student use of electronic cigarettes? ¹ | 1.44 3 | 2.015 |
| NSAFSUB81 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ¹ | 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. ¹ | 1.57 0 | 1.750 |
| NENVPENV97 | My work is hindered by poor heating, cooling, and/or lighting systems at this school. ¹ | 1.81 8 | 2.069 |
| NENVPENV99 | My work is hindered by a lack of materials and basic supplies at this school. ¹ | 1.37 4 | 1.347 |
| NENVPENV100 | My work is hindered by inadequate or outdated equipment or facilities at this school. ¹ | 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. ¹ | 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 |

¹This 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 respondents⁸ 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 25.⁹ 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 ¹ | Decision ² |
|---------------|--|--------------------|-----------------------|
| 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 |

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

⁹ 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 ¹ | Decision ² |
|---------------|---|--------------------|-----------------------|
| 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. ³ | | y-PSAF |
| NSAFPSAF58 | The following types of problems occur at this school often: robbery or theft. ³ | | y-PSAF |
| NSAFPSAF59 | The following types of problems occur at this school often: | | y-PSAF |

| | | |
|------------|--|--------|
| NSAFPSAF60 | vandalism. ³ 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. ³ | n |
| NSAFPSAF61 | The following types of problems occur at this school often: student possession of weapons. ³ | y-PSAF |
| NSAFPSAF62 | The following types of problems occur at this school often: student gang activities. ³ | n |
| NSAFPSAF63 | The following types of problems occur at this school often: physical abuse of teachers. ³ | 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 ¹ | Decision ² |
|---------------|--|--------------------|-----------------------|
| NSAFPSAF64 | The following types of problems occur at this school often: student verbal abuse of teachers. ³ | | y-PSAF |
| NSAFBUL65 | I think that bullying is a frequent problem at this school. ³ | | y-BUL |
| NSAFBUL66 | I think that cyberbullying is a frequent problem among students at this school. ³ | | y-BUL |
| NSAFBUL67 | I think that racial/ethnic tension or discrimination among students is a frequent problem at this school. ³ | | 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. ³ | | y-BUL |
| NSAFBUL77 | Staff at this school are teased or picked on about their cultural background or religion. ³ | | y-BUL |
| NSAFBUL78 | Staff at this school are teased or picked on about their physical or mental disability. ³ | | y-BUL |
| NSAFBUL79 | Staff at this school are teased or picked on about their sexuality. ³ | | y-BUL |
| NSAFSUB80 | At this school, how much of a problem is student drug use? ³ | IO | y |
| NSAFSUB81B | At this school, how much of a problem is student use of electronic cigarettes? ³ | PP/IO | y |
| NSAFSUB81 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ³ | IO | y |
| NSAFSUB82 | At this school, how much of a problem is student alcohol use? ³ | 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 ¹ | Decision ² |
|---------------|---|--------------------|-----------------------|
| 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. ³ | INR/IO | n |
| NENVPENV97 | My work is hindered by poor heating, cooling, and/or lighting systems at this school. ³ | INR/PP/IO | y-PENV |
| NENVPENV98 | My work is hindered by insufficient workspace at this school. ³ | INR | y-PENV |
| NENVPENV99 | My work is hindered by a lack of materials and basic supplies at this school. ³ | IO | y-PENV |
| NENVPENV100 | My work is hindered by inadequate or outdated equipment or facilities at this school. ³ | 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. ³ | 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 ¹ | Decision ² |
|---------------|--|--------------------|-----------------------|
| 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 |

¹ 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.

² 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).

³ 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 ¹ |
| 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 (PENVPENV) | 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 |

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

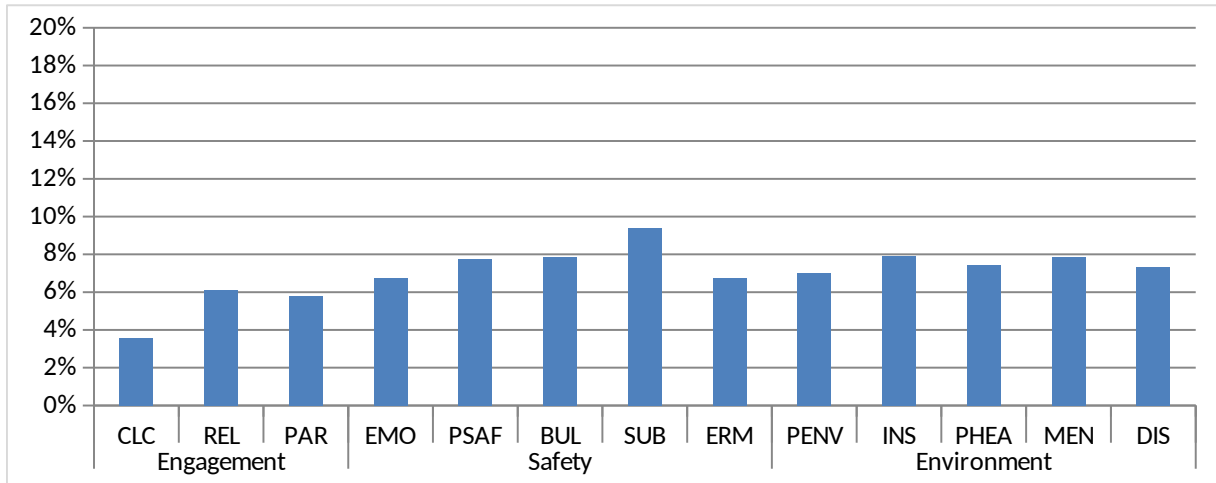
Parent item analysis

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? ¹ | 10.7% |
| Psafsub41 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ¹ | 10.3% |

¹This 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. ¹ | 0.234 |
| PSAFPSAF32 | Racial/ethnic conflict among students is a problem at this school. ¹ | 0.497 |
| PSAFPSAF33 | Gang-related activity is a problem at this school. ¹ | 0.486 |
| PSAFBUL39 | This school has helped me be more aware of bullying and cyberbullying of students. | 0.392 |

¹This 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. ¹ | 0.129 |
| PENVINS50 | Attending school every day is important for my child to do well in his/her classes. | 0.295 |

¹This 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. ¹ | 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 |

¹This 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 ¹ | Decision ² |
|---------------|---|--------------------|-----------------------|
| 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. ³ | 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. ³ | FL | y |
| PSAFPSAF33 | Gang-related activity is a problem at this school. ³ | | n |
| PSAFPSAF34 | Physical fighting between students is a problem at this school. ³ | | y |
| PSAFBUL36 | Bullying of students at school or school activities is a problem at this school. ³ | | y |
| PSAFBUL37 | Bullying of students via electronic means or devices is a problem at this school (cyberbullying). ³ | | 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? ³ | | y |
| PSAFSUB41B | At this school, how much of a problem is student use of electronic cigarettes? ³ | INR | y |
| PSAFSUB41 | At this school, how much of a problem is student use of tobacco (e.g., cigarettes, chew, cigars)? ³ | INR | y |

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

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

| Variable name | Description | Flags ¹ | Decision ² |
|---------------|--|--------------------|-----------------------|
| 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 |

¹ 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.

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

³ 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 EDSCLS team, there were a total of 53 individual issues. Most of the EDSCLS-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 EDSCLS 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 EDSCLS’s e-mail dissemination feature. Future version of the User Guide will include a taxonomy tree to help host sites assess the EDSCLS compatibility of their existing IT systems. For example, sites conducting larger data collections, such as district- or state-wide EDSCLS 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 items¹⁰, 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.

¹⁰ 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

| Variable name | INR | Variable name | INR | Variable name | INR | Variable name | INR |
|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|
| 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

| Variable name | INR | Variable name | INR | Variable name | INR | Variable name | INR |
|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|
| 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

| Variable name | INR | Variable name | INR | Variable name | INR | Variable name | INR |
|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|
| 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

| Variable name | Most negative | Negative | Positive | Most positive | Variable name | Most negative | Negative | Positive | Most positive |
|----------------------|----------------------|-----------------|-----------------|----------------------|----------------------|----------------------|-----------------|-----------------|----------------------|
| 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

| Variable name | Most negative | Negative | Positive | Most positive | Variable name | Most negative | Negative | Positive | Most positive |
|----------------------|----------------------|-----------------|-----------------|----------------------|----------------------|----------------------|-----------------|-----------------|----------------------|
| 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

| Variable name | Most negative | Negative | Positive | Most positive | Variable name | Most negative | Negative | Positive | Most positive |
|----------------------|----------------------|-----------------|-----------------|----------------------|----------------------|----------------------|-----------------|-----------------|----------------------|
| 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

| Variable name | Most negative | Negative | Positive | Most positive | Variable name | Most negative | Negative | Positive | Most positive |
|---------------|---------------|----------|----------|---------------|---------------|---------------|----------|----------|---------------|
| 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

| Variable name | Most negative | Negative | Positive | Most positive | Variable name | Most negative | Negative | Positive | Most positive |
|----------------------|----------------------|-----------------|-----------------|----------------------|----------------------|----------------------|-----------------|-----------------|----------------------|
| 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 | 0.746 | 0.033 | PSAFPSAF30 | 0.673 | 0.036 | PENVINS51 | 0.711 | 0.033 |
| PENGCLC6 | 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 | SENPENV99 | 0.854 | 0.852 | 0.489 |
| SENGCLC2 | 1.050 | 1.109 | 0.471 | SSAFEMO50 | 1.139 | 1.151 | 0.331 | SENPENV100 | 0.957 | 0.978 | 0.405 |
| SENGCLC3 | 1.128 | 1.164 | 0.407 | SSAFEMO51 | 1.319 | 1.383 | 0.253 | SENPENV101 | 0.819 | 0.821 | 0.517 |
| SENGCLC4 | 0.899 | 0.924 | 0.555 | SSAFEMO52 | 1.232 | 1.262 | 0.304 | SENPENV102 | 0.979 | 1.001 | 0.409 |
| SENGCLC5 | 1.215 | 1.274 | 0.366 | SSAFEMO53 | 1.050 | 1.051 | 0.412 | SENPENV103 | 0.814 | 0.808 | 0.536 |
| SENGCLC6 | 1.413 | 2.727 | 0.296 | SSAFEMO54 | 0.995 | 1.001 | 0.499 | SENPENV104 | 1.292 | 1.419 | 0.192 |
| SENGCLC7 | 1.032 | 1.053 | 0.490 | SSAFEMO55 | 1.135 | 1.142 | 0.379 | SENPENV105 | 0.910 | 0.908 | 0.454 |
| SENGCLC8 | 1.002 | 0.989 | 0.505 | SSAFEMO56 | 1.008 | 1.001 | 0.471 | SENPENV106 | 0.931 | 0.924 | 0.449 |
| SENGREL9 | 0.818 | 0.821 | 0.618 | SSAFEMO57 | 1.097 | 1.088 | 0.400 | SENPENV107 | 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 | SENPHEA123 | 1.223 | 1.320 | 0.311 |
| SENGREL20 | 0.915 | 0.915 | 0.578 | SSAFPSAF70 | 0.834 | 0.833 | 0.611 | SENPHEA124 | 1.231 | 1.390 | 0.318 |
| SENGREL21 | 0.951 | 0.939 | 0.547 | SSAFPSAF71 | 0.905 | 0.899 | 0.577 | SENPHEA125 | 1.468 | 1.934 | 0.201 |
| SENGREL22 | 0.985 | 0.993 | 0.528 | SSAFBUL72 | 0.885 | 0.869 | 0.592 | SENPHEA126 | 1.432 | 1.638 | 0.141 |
| SENGREL26 | 1.095 | 1.109 | 0.466 | SSAFBUL74 | 0.965 | 0.961 | 0.548 | SENPHEA127 | 1.440 | 1.790 | 0.164 |
| SENGREL29 | 0.981 | 0.958 | 0.521 | SSAFBUL75 | 0.948 | 0.932 | 0.551 | SENPHEA128 | 1.484 | 1.950 | 0.184 |
| SENGPAR43 | 1.093 | 1.142 | 0.490 | SSAFBUL76 | 0.976 | 0.988 | 0.548 | SENPHEA129 | 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 |

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 | 0.008 | SENVDIS143 | 0.731 | 0.008 |
| SENGPAR47 | 0.674 | 0.008 | SSAFBUL73 | 0.768 | 0.008 | | | |

| | | | | | | | | |
|-----------|-------|------|-----------|-------|------|-------------|-------|------|
| | | 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 | | | |

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 | | |
| IENGCLC2 | 0.667 | 0.023 | ISAFEMO5 | 0.889 | 0.013 | IENVPENV97 | 0.777 | 0.021 |
| IENGCLC3 | 0.698 | 0.021 | ISAFEMO5 | 0.851 | 0.013 | IENVPENV98 | 1.000 | 0.027 |
| IENGCLC4 | 0.694 | 0.022 | ISAFEMO5 | 0.791 | 0.016 | IENVPENV10 | 0.560 | 0.027 |
| IENGCLC6 | 0.815 | 0.017 | ISAFEMO5 | 0.898 | 0.011 | IENVPENV10 | 0.642 | 0.025 |
| IENGCLC7 | 0.758 | 0.018 | ISAFEMO5 | 0.884 | 0.022 | IENVPENV10 | 0.724 | 0.021 |
| IENGCLC8 | 0.723 | 0.020 | ISAFEMO5 | 0.569 | 0.028 | IENVPENV10 | 0.730 | 0.021 |
| F2 BY | | | F2 BY | | | F2 BY | | |
| IENGREL9 | 0.817 | 0.018 | ISAFPSAF6 | 0.659 | 0.023 | IENVINS105 | 0.559 | 0.026 |
| IENGREL10 | 0.866 | 0.014 | ISAFPSAF6 | 0.760 | 0.009 | IENVINS107 | 0.795 | 0.026 |
| IENGREL12 | 0.693 | 0.021 | ISAFPSAF6 | 0.781 | 0.018 | IENVINS108 | 0.783 | 0.027 |
| IENGREL14 | 0.707 | 0.023 | ISAFPSAF6 | 0.825 | 0.017 | IENVINS110 | 0.682 | 0.022 |
| IENGREL15 | 0.796 | 0.020 | ISAFPSAF6 | 0.785 | 0.020 | IENVINS115 | 0.650 | 0.024 |
| F3 BY | | | ISAFPSAF6 | 0.847 | 0.016 | IENVINS116 | 0.734 | 0.029 |
| IENGP29 | 0.817 | 0.015 | F3 BY | | | F3 BY | | |
| IENGP31 | 0.873 | 0.011 | ISAFBUL68 | 0.772 | 0.009 | IENVPHEA11 | 0.873 | 0.022 |
| IENGP32 | 0.824 | 0.015 | ISAFBUL69 | 0.617 | 0.004 | IENVPHEA12 | 0.867 | 0.022 |
| IENGP36 | 0.859 | 0.013 | ISAFBUL71 | 0.655 | 0.008 | IENVPHEA12 | 0.913 | 0.020 |
| IENGP42 | 0.772 | 0.017 | ISAFBUL73 | 0.611 | 0.004 | IENVPHEA12 | 0.854 | 0.024 |
| IENGP48 | 0.676 | 0.024 | ISAFBUL79 | 0.921 | 0.008 | F4 BY | | |
| F BY | | | ISAFBUL80 | 0.981 | 0.005 | IENVMEN123 | 0.793 | 0.027 |

| | | | | | | | | |
|----|-------|------|-----------|-------|------|-------------|-------|------|
| | | 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 | | |

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 | | | | | | | | | | |
| NENGPARG34 | 0.89 | 0.872 | 0.715 | NSAFBUL65 | 0.969 | 1.001 | 0.522 | NENVPHEA117 | 1.076 | 1.005 | 0.533 |
| | 8 | | | | | | | | | | |
| NENGPARG37 | 1.15 | 1.207 | 0.583 | NSAFBUL66 | 1.323 | 1.345 | 0.398 | NENVPHEA118 | 0.772 | 0.672 | 0.674 |
| | 5 | | | | | | | | | | |
| NENGPARG38 | 1.05 | 1.045 | 0.603 | NSAFBUL70 | 1.120 | 1.064 | 0.409 | NENVPHEA119 | 0.897 | 0.872 | 0.626 |
| | 2 | | | | | | | | | | |
| NENGPARG44 | 0.89 | 0.916 | 0.666 | NSAFBUL76 | 1.019 | 1.012 | 0.484 | NENVMEN122 | 0.807 | 0.722 | 0.711 |
| | 6 | | | | | | | | | | |
| NENGPARG47 | 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 |

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 |
| SEVMEN130 | -0.281 | -0.343 | -0.381 | -0.272 | -0.369 | -0.255 | -0.312 | -0.291 |
| SEVMEN132 | -0.342 | -0.342 | -0.411 | -0.303 | -0.282 | -0.404 | -0.342 | -0.342 |
| SEVMEN133 | -0.222 | -0.222 | -0.302 | -0.179 | -0.222 | -0.222 | -0.222 | -0.222 |
| SEVMEN134 | 1.231 | 1.486 | 1.280 | 1.407 | 1.472 | 1.214 | 1.527 | 1.176 |
| SEVMEN137 | 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.