Exhibit A

Study of Students' Sense of Inclusiveness

Introduction and Summary

This study evaluates Tucson Unified School District's (TUSD) sense of inclusiveness for students of distinct ethnicities. It is a part of a larger initiative for coordinated programs and practices involving student integration, diversity, and racial equity.   This study uses the 2017-18 School Quality Survey responses, administered to students in grades 3 – 12, to measure social integration, a proxy for a student's "sense of inclusiveness". The results of the SQS are very similar from year to year and the results from 2017-18 conform to prior years with only minor differences.

The principal finding is a high level of inclusiveness, across all racial and ethnic groups. Table 1 presents the overall results:

Table 1. 2017-18 Percent Agree/Strongly Agree by Students to the Intercultural Proficiency Questions by Ethnicity on the SQS, Grades 3 – 12				
School Type	White	African American	Hispanic	Total (All 6 Ethnicities*)
Elementary	92.01%	87.81%	88.33%	89.00%
K-8 Schools	90.42%	87.35%	88.72%	88.74%
Middle	89.45%	84.72%	86.91%	87.26%
High/Alt	92.30%	90.65%	90.68%	91.07%
Total	**91.48%**	**88.25%**	**88.89%**	**89.34%**

Though this indicates a strong level of social integration across the District, differences among school levels and in certain areas suggest that the District may be able to improve on these already very positive numbers.

Methodology

The primary source for measuring students' perceptions of social integration is the School Quality Survey (SQS) for Students, grades 3 – 12. This survey is administered in the spring of each year and includes questions about instruction, school environment, intercultural proficiency, personal qualities (of the student), and overall satisfaction. Please see Appendix 1 for a complete list of SQS survey items. Additionally, the SQS collects basic student demographics including the student's school, grade, and ethnic background.

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To assess students' sense of social inclusiveness, questions in the 'Intercultural Proficiency' section of the SQS were examined. Additionally, three questions that addressed 'bullying' were also included. The SQS is scored on a Likert Scale and responses range from 4 = "Strongly Agree" to 1 = "Strongly Disagree". The Intercultural Proficiency questions from the School Quality Survey are:

- I easily make friends with students of different racial and ethnic backgrounds.
- I rarely hear students say negative things about the racial or ethnic backgrounds of others.
- I rarely hear students say negative things about the special needs of others.
- Students of different racial and ethnic backgrounds get along at my school.
- At my school, it's okay to hang out with students of different racial/ethnic groups.
- What I am learning in school helps me understand my own culture and the cultures of others.
- Teachers treat students with respect.
- I feel that adults at my school understand my learning needs.
- I feel welcome at my school.

The bullying questions are:

- I feel safe at my school.
- There is someone who I can safely report bullying o harassment to at my school.
- This year I have rarely been the victim of bullying or harassment.

Tables 2 and 3 illustrate that students of different ethnicities respond similarly to the SQS questions each year. In terms of overall agreement, no one ethnicity was more than 5% different from the others in overall agreement to the nine Intercultural Proficiency questions with the exception of African American and Hispanic student in 2015-16 who showed a 5.23% difference in the bullying questions.

Table 1 shows that the scores for Intercultural Proficiency questions have increased each year in percent agreement for a gain of 7.50% overall.

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Table 2. Percent Agree/Strongly Agree by Students to the Intercultural Proficiency Questions by Ethnicity on the SQS over 3 Years, Grades 3 – 12				
Year	White	African American	Hispanic	Total (All 6 Ethnicities*)
2015-16	82.06%	79.53%	83.75%	81.84%
2016-17	84.83%	82.73%	86.48%	85.00%
2017-18	91.48%	88.25%	88.89%	89.34%

White, African American, Hispanic, Native American, Asian-PI, Multi-Racial

With the bullying questions, Table 3 shows that the scores have increased over the three years for a gain of 3.75% overall.   This data from Tables 2 and 3 indicate that students, regardless of their ethnicity, show high agreement in social inclusiveness.

Table 3. Percent Agree/Strongly Agree by Students to the Bullying Questions by Ethnicity on the SQS over 3 Years, Grades 3 – 12				
School Type	White	African American	Hispanic	Total (All 6 Ethnicities*)
2015-16	80.68%	75.68%	80.91%	79.44%
2016-17	85.20%	81.93%	83.70%	84.46%
2017-18	84.79%	81.43%	82.91%	83.19%

White, African American, Hispanic, Native American, Asian-PI, Multi-Racial

Factor Analysis

A factor analysis was conducted to determine if the Intercultural Proficiency questions were related to one another in terms of how students responded to the survey. Additionally, this analysis will assess if students responded to questions on the survey in a similar way. This method is most commonly used to understand the inter-dependency of the larger numbers of variables to the smaller or latent variables and to discover if latent factors exist (i.e. other questions on the survey) that create a commonality.

Factor analysis of the nine Intercultural Proficiency questions uncovered three distinct factors, or broad concepts. One factor, called Instruction (questions 22 through 25) was associated with the student's perceptions of the adult educators in their school, while a second factor, called Social Climate (questions 18 and 19) was associated with the student's peer relationships in the school. Another factor, called Personal Qualities (question 17 and 21) appears to be related to the student's own personal views and

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experience. Thus, the student's perception of social inclusiveness as measured by this subscale's nine survey questions incorporates a variety of relationships, including the school staff, student peers, and the students' own impressions.

The bullying questions did not load strongly with any of the four factors (Instruction, Social Climate, Technology, or Personal Qualities). The questions loaded only somewhat with Instruction. Please see Appendix 2 for more detail on the factor analysis of the SQS.

Results

Although the three ethnicities frequently perceived somewhat differing levels of social inclusiveness within the same school, all ethnicities were relatively cohesive in their agreement about which schools were the highest and lowest when compared to each school level in terms of social inclusiveness. The schools listed below are broken out by year.

Schools with the greatest differences from the overall school level mean (Elementary, K-8, Middle, and High School) are listed below in Table 3, 5, and 7 for Intercultural Proficiency and in Table 4, 6 and 8 for Bullying. For the purposes of this report, each ethnicity (White, African American, and Hispanic) was evaluated twice, once for the responses to the Intercultural Proficiency questions and once for the responses to the Bullying questions for a total of six possible responses by school. To be included in this analysis, schools needed to have a minimum 4 of the 6 responses (two or more ethnicities) from both the Intercultural Proficiency and Bullying questions that were -5% or more in agreement than the school level average.

For example, Steele was included as part of the 2015-16 cohort because all three ethnicities reported -5% or more in agreement when compared to the school level average in both Intercultural Proficiency (N=3) and Bullying (N=3) responses. To view in more detail in Table 3, 76.88% of White students at Steele Elementary agreed/strongly agreed to the Intercultural Proficiency questions. When compared to the Elementary School level average for White students, Steele's White students scored -10.16% overall.

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- **2015-16:** The schools where the majority of ethnicities felt a lower sense of inclusiveness or felt bullied were Steele Elementary, Lawrence K-8, Secrist Middle, and Santa Rita High Schools.

  - Table 4 indicates that White students at Secrist and Catalina, African American students at Steele and Tolson, and Hispanic students at Catalina and Secrist were least in agreement about student inclusiveness.

Table 4. 2015-16 Intercultural Proficiency questions: Schools with Agree/Strongly Agree Percent that were 5% or less than the School Type Average broken out by Ethnicity						
School	White	African American	Hispanic	White	African American	Hispanic
Elementary School Avg	87.04	82.43	87.53	Difference >5% highlighted in Blue		
Steele Elementary	76.88	73.71	81.88	-10.16	-8.72	-5.65
Tolson Elementary	76.67	73.58	87.62	-10.37	-8.85	0.09
K-8 School Avg	81.57	80.94	84.59	Difference >5% highlighted in Blue		
Fickett	71.20	75.21	77.47	-10.37	-5.73	-7.12
Lawrence	80.23	74.56	76.46	-1.34	-6.38	-8.13
Middle School Avg	77.25	73.47	78.80	Difference >5% highlighted in Blue		
Secrist Middle School	60.48	68.35	67.79	-16.77	-5.12	-11.01
High School Avg	80.93	79.30	83.41	Difference >5% highlighted in Blue		
Catalina High School	68.31	87.70	71.86	-12.62	8.40	-11.55
Santa Rita High School	72.08	72.41	73.45	-8.85	-6.89	-9.96

  - Table 5 indicates that White students at Secrist and Steele, African American students at Steele and Lawrence, and Hispanic students at Santa Rita and Secrist were least in agreement about not being bullied at school.

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Table 5. 2015-16 Bullying Questions: Schools with Agree/Strongly Agree Percent that were 5% or more less than the School Type Average broken out by Ethnicity						
School	White	African American	Hispanic	White	African American	Hispanic
Elementary School Avg	82.52	76.79	81.47	Difference >5% highlighted in Blue		
Steele Elementary	62.88	60.32	69.64	-19.64	-16.47	-11.83
Tolson Elementary	81.13	66.67	75.84	-1.39	-10.12	-5.63
K-8 School Avg	78.37	76.45	79.26	Difference >5% highlighted in Blue		
Fickett	69.71	71.95	76.15	-8.66	-4.50	-3.11
Lawrence	71.43	61.70	65.48	-6.94	-14.75	-13.78
Middle School Avg	75.64	70.66	75.06	Difference >5% highlighted in Blue		
Secrist Middle School	54.17	73.33	59.40	-21.47	2.67	-15.66
High School Avg	82.84	76.62	84.87	Difference >5% highlighted in Blue		
Catalina High School	65.99	73.17	74.11	-16.85	-3.45	-10.76
Santa Rita High School	72.39	74.58	67.16	-10.45	-2.04	-17.71

- **2016-17:** The schools where the majority of ethnicities felt a lower sense of inclusiveness or felt bullied were Erickson Elementary, Santa Rita High School, Henry Elementary, and Holladay Elementary Schools.

- Table 6 indicates that White students at Cavett and Erickson, African American students at Erickson and Henry, and Hispanic students at Davidson and Holladay were least in agreement about student inclusiveness.

Table 6. 2016-17 Intercultural Proficiency questions: Schools with Agree/Strongly Agree Percent that were 5% or more less than the School Type Average broken out by Ethnicity						
School	White	African American	Hispanic	White	African American	Hispanic
Elementary School Avg	88.61	84.75	87.85	Difference >5% highlighted in Blue		
Bloom Elementary	80.54	84.77	82.17	-8.07	0.02	-5.68
Cavett Elementary	60.71	89.98	86.09	-27.90	5.23	-1.76
Davidson Elementary	84.25	87.30	78.02	-4.36	2.55	-9.83
Erickson Elementary	73.22	73.27	81.39	-15.39	-11.48	-6.46

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Henry Elementary	79.93	73.63	81.15	-8.68	-11.12	-6.70
Holladay Magnet Elem	79.21	82.42	79.39	-9.40	-2.33	-8.46
Miller Elementary	82.05	76.46	85.10	-6.56	-8.29	-2.75
High School Avg	84.02	81.93	86.75	Difference >5% highlighted in Blue		
Catalina High School	78.55	80.85	79.48	-5.47	-1.08	-7.27
Santa Rita High School	74.85	70.59	75.72	-9.17	-11.34	-11.03

- Table 7 indicated that White students at Cavett and Erickson, African American students at Henry and Erickson, and Hispanic students at Bloom and Erickson were least in agreement about not being bullied at school.

Table 7. 2016-17 Bullying Questions: Schools with Agree/Strongly Agree Percent that were 5% or more less than the School Type Average broken out by Ethnicity						
School	White	African American	Hispanic	White	African American	Hispanic
Elementary School Avg	83.41	79.09	79.71	Difference >5% highlighted in Blue		
Bloom Elementary	75.19	78.99	66.99	-8.22	0.10	-12.72
Cavett Elementary	60.00	68.06	74.61	-23.41	-11.03	5.10
Davidson Elementary	73.33	68.63	69.67	-10.08	-10.46	-10.04
Erickson Elementary	68.12	68.00	67.22	-15.29	-11.09	-12.49
Henry Elementary	77.69	54.39	77.00	-5.72	-24.70	2.71
Holladay Magnet Elem	77.78	61.91	67.90	-5.63	-17.18	-11.81
Miller Elementary	77.78	72.22	76.22	-5.63	-6.87	3.49
High School Avg	83.63	79.03	85.2	Difference >5% highlighted in Blue		
Catalina High School	71.49	70.23	73.91	-12.14	8.80	-11.29
Santa Rita High School	69.14	69.27	74.01	-14.49	-9.76	-11.19

- **2017-18:** The schools where the majority of ethnicities felt a lower sense of inclusiveness or felt bullied were Blenman Elementary, Cavett Elementary, Cragin Elementary, and Holladay Elementary Schools.

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- Table 8 indicated that White students at Cavett and Santa Rita, African American students at Holladay and Cragin, and Hispanic students at Santa Rita and Blenman were least in agreement about student inclusiveness.

Table 8. 2017-18 Intercultural Proficiency questions: Schools with Agree/Strongly Agree Percent that were 5% or more less than the School Type Average broken out by Ethnicity						
School	White	African American	Hispanic	White	African American	Hispanic
Elementary School Avg	88.46	84.71	86.84	Difference >5% highlighted in Blue		
Blenman Elementary	75.50	76.79	76.15	-12.96	-7.92	-10.69
Cavett Elementary	60.52	71.47	84.53	-27.94	-13.24	-2.31
Cragin Elementary	81.54	71.10	76.74	-6.92	-13.61	-10.10
Holladay Magnet Elem	67.83	65.33	79.73	*	-19.38	-7.11
K-8 School Avg	83.26	83.16	84.89	Difference >5% highlighted in Blue		
Dietz K-8	82.53	82.72	79.84	-0.73	-0.44	-5.05
High School Avg	84.37	82.29	85.93	Difference >5% highlighted in Blue		
Santa Rita High School	70.00	84.63	74.71	-14.37	2.34	-11.22

less than 5 students – not included

- Table 9 indicated that White students at Cavett and Santa Rita, African American students at Holladay and Cavett, and Hispanic students at Santa Rita and Blenman were least in agreement about not being bullied at school.

Table 9. 2017-18 Bullying Questions: Schools with Agree/Strongly Agree Percent that were 5% or more less than the School Type Average broken out by Ethnicity						
School	White	African American	Hispanic	White	African American	Hispanic
Elementary School Avg	82.68	76.29	78.35	Difference >5% highlighted in Blue		
Blenman Elementary	73.56	61.57	69.83	-9.12	-14.72	-8.52
Cavett Elementary	44.44	61.11	70.24	-38.24	-15.18	-8.11
Cragin Elementary	78.10	65.22	70.51	-4.58	-11.07	-7.84
Holladay Magnet Elem	45.83	55.83	72.75	*	-20.46	-5.60
K-8 School Avg	73.87	74.9	77.72	Difference >5% highlighted in Blue		
Dietz K-8	65.39	67.82	72.64	-8.48	-7.08	-5.08
High School Avg	83.36	79.16	83.83	Difference >5% highlighted in Blue		
Santa Rita High School	63.89	86.23	67.13	-19.47	7.07	-16.70

less than 5 students – not included

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Summary

The results of the School Quality Survey, administered to students in grades 3 - 12 was used to measure Intercultural Proficiency and Bullying, a proxy for a student's "sense of inclusiveness".   Over the last three years, the district average revealed very high agreement using the Intercultural Proficiency and Bullying questions. Moreover, the Intercultural Proficiency questions have increased each year over the last three years in percent agreement to reach 89.34% in 2017-18. Additionally, the district average of Bullying questions have also increased each year in percent agreement to reach 83.19% in 2017-18.

At the district level, the three ethnicities (White, African American, and Hispanic) exhibited similar levels of agreement to the Intercultural Proficiency and Bullying questions. No one ethnicity was more than 5% different from the others in overall agreement from 2015-16 to 2017-18 with the exception of African American and Hispanic students in 2015-16 who showed a 5.23% difference in the bullying questions. This data suggests that different ethnicities as a whole feel comparable levels of social inclusiveness in the district.

At the school level, about half of the district schools showed very similar results as their respective school level averages (2015-16 = 45%, 2016-17 = 58%, and 2017-18 = 55%). In other words, White, African American, and Hispanic student agreement at these schools were consistent to the district averages with a difference of -5% or less.   At the remaining schools throughout the district, African American, Hispanic, and White students perceived somewhat contrasting levels of social inclusiveness within the same school. However, these levels appear to vary from year to year as well.

When schools were looked at individually, some schools showed greater differences in the levels of agreement to these questions by ethnicity. For the purposes of this report, schools were identified as showing lowered overall social inclusiveness when two or more ethnicities (White, African American, and Hispanic) reported a difference of -5% or more when compared to their respective school level average. These schools appeared to have culture and climate issues that resulted in students reporting lower intercultural proficiency and higher levels of bullying. The number of schools that met the criteria were:

- 2015-16 = 7 schools or 8% of the district
- 2016-17 = 9 schools or 11% of the district
- 2017-18 = 6 schools or 8% of the district

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Interestingly, a school level pattern did not emerge from year to year. In 2015-16, schools came from all levels including elementary (Steele, Tolson), K-8 (Booth-Fickett, Lawrence), middle (Secrist), and high (Catalina and Santa Rita). In 2016-17, the majority of schools were elementary (Bloom, Cavett, Davidson, Erickson, Henry, Holladay, and Miller) or high (Catalina and Santa Rita). In 2017-18, the school levels were more similar to 2015-16 with a mix of elementary (Blenman, Cavett, Cragin, and Holladay), K-8 (Dietz), and high schools (Santa Rita). Additionally, schools would show significant differences in agreement among ethnicities one year and then be very comparable to one another the following year. Nonetheless, some schools did show lower inclusiveness among two or more ethnicities over multiple years: Cavett, Holladay, Catalina, and Santa Rita.

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Appendix 1. 2017 – 18 School Quality Survey: Student – Grades 3 to 12

Instruction:

1. My teachers help me when I need help with my homework.
2. My teachers give me a chance to answer questions.
3. During class, students have a chance to discuss what they are learning.
5. My teachers give me a chance to ask questions.
6. My teachers encourage me to do my best.
7. I enjoy what I am learning in school.
8. This school does a good job of teaching me how to use computers.
9. I often use computers at school to do my homework.
10. I often use a computer at home to complete my homework.

Environment:

11. The school is clean and well kept.
12. Students behave during class.
13. My classrooms are comfortable places to learn.
14. I feel safe at my school.
15. There is someone who I can safely report bullying or harassment to at my school.
16. This year I have rarely been the victim of bullying or harassment.

Intercultural Proficiency:

17. I easily make friends with students of different racial and ethnic backgrounds.
18. I rarely hear students say negative things about the racial or ethnic backgrounds of others.
19. I rarely hear students say negative things about the special needs of others.
20. Students of different racial and ethnic backgrounds get along at my school.
21. At my school it's okay to hang out with students of different racial/ethnic groups.
22. What I am learning in school helps me understand my own culture and the cultures of others.
23. Teachers treat students with respect.
24. I feel that adults at my school understand my learning needs.
25. I feel welcome at my school.

Personal Qualities:

26. I attend school regularly and try not to be absent.
27. I usually follow the rules and stay out of trouble.
28. I usually complete and turn in my homework on time.
29. I usually get to class on time.

30. Overall, I am satisfied with my school.

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Appendix 2. Factor Analysis of the 2017-2018 Student School Quality Survey

The Student School Quality Survey (SQS) for grades 3 to 12 consists of 30 positively worded items rated on a 4-point Likert scale from "Strongly Agree" (4) to "Strongly Disagree" (1). The grade 3 -12 SQS is divided into four subscales: Instruction (10 items), Environment (6 items), Intercultural Proficiency (9 items), and Personal Qualities (4 items). The last question asks students to rate their overall satisfaction with their school..

Responses to the 2017-2018 SQS were Factor Analyzed using Principal components extraction and Varimax raw (orthogonal) rotation. Following rotation, 4 factors were identified from the full survey (Table 1). Seven out of the 10 items under "Instruction" were identified as a factor with loadings of .50 or greater. Questions 9 and 10 under Instruction formed a separate factor related to computer use. Question 13 under "Environment" and questions 22 through 24 under "Intercultural Proficiency" also grouped with the "Instruction" factor. A second factor included two of 9 items (18 & 19) from the "Intercultural Proficiency" subscale:

18. I rarely hear students say negative things about the racial or ethnic backgrounds of others.
19. I rarely hear students say negative things about the special needs of others.

The fourth factor identified included all 4 questions under the "Personal Qualities" subscale. The factor loadings in this scale ranged from .562 to .662.

Table 1. Identification of Factors for the 2017-18 School Quality Survey, Grades 3 - 12					
		Factors			
Subscale	Question	Instruction	Social Climate	Technology	Personal Qualities
Instruction	Q1	0.451	-0.046	0.281	0.154
	Q2	0.625	-0.007	0.063	0.208
	Q3	0.564	0.004	0.183	0.132
	Q4	0.608	0.037	0.171	0.080
	Q5	0.650	-0.008	0.080	0.224
	Q6	0.639	0.032	0.011	0.222
	Q7	0.623	0.181	0.095	0.080
	Q8	0.510	0.213	0.116	-0.029
	Q9	0.121	0.096	0.815	-0.008
	Q10	0.008	0.047	0.827	0.075
	Q11	0.459	0.399	0.046	-0.044

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	Q12	0.323	0.402	0.224	0.015
Environment	Q13	0.595	0.335	0.037	0.109
	Q14	0.472	0.467	-0.020	0.077
Bullying = Q14-Q16	Q15	0.339	0.332	-0.003	0.215
	Q16	-0.098	0.407	0.201	0.222
	Q17	0.134	0.311	0.011	0.404
	Q18	0.113	0.689	0.136	0.052
	Q19	0.057	0.671	0.137	0.101
Intercultural	Q20	0.198	0.476	-0.003	0.319
Proficiency	Q21	0.198	0.279	-0.077	0.465
	Q22	0.504	0.290	0.066	0.098
	Q23	0.593	0.267	-0.018	0.184
	Q24	0.573	0.291	0.000	0.165
	Q25	0.489	0.445	-0.038	0.196
	Q26	0.197	0.101	-0.014	0.628
Personal	Q27	0.169	0.124	0.081	0.620
Qualities	Q28	0.164	0.086	0.181	0.562
	Q29	0.154	0.019	0.042	0.662
Overall	Q30	0.494	0.421	-0.046	0.148

The "Instruction" and "Intercultural Proficiency" subscales were then factor analyzed separately. Again, the Instruction scale broke into 2 distinct factors - the first related to teaching and classroom management and the second related to technology, or more specifically, the use of computers (Table 2).

Table 2. Factor Analysis for the 2017-18 SQS subscale, Instruction		
	Instruction	
Question	Teacher	Technology
Q1	0.507	0.228
Q2	0.706	0.020
Q3	0.637	0.112
Q4	0.661	0.111
Q5	0.735	0.036
Q6	0.706	0.003
Q7	0.616	0.138
Q8	0.497	0.187
Q9	0.095	0.862
Q10	0.003	0.863

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Table 3 shows the Intercultural Proficiency scale (inclusion) separated into 3 distinct factors. One factor (questions 22 through 25) appeared to be related to the student's perceptions of the adult educators in their school, while a second factor (questions 18 and 19) related to the student's peer relations in the school. The third factor identified (question 17 and 21) appeared to be related to the student's own personal views and experience.

Table 3. Factor Analysis for the 2017-18 SQS subscale, Intercultural Proficiency			
	Intercultural Proficiency		
Question	Adults	Students	Personal
Q17	0.099	0.081	0.776
Q18	0.171	0.841	0.078
Q19	0.096	0.853	0.121
Q20	0.228	0.324	0.584
Q21	0.164	0.083	0.762
Q22	0.683	0.142	0.110
Q23	0.735	0.128	0.147
Q24	0.775	0.139	0.104
Q25	0.653	0.183	0.255

An external consultant was contracted to conduct a second independent factor analysis of the entire 2016-17 SQS. The survey questions have not changed from year to year. The two analyzes yielded very similar results in terms of the factor loadings for this survey.