



## The Impact of 2016-17 Climate Survey Changes

### Key Findings

1. In examining results by question change type, we see an increase in positive responses that, in part, is driven by both an increase in very positive responses and a decrease in neutral responses.
2. When we explore dimension changes, we observe a similar trend of increased percent positive by dimension, driven in part by shifts of questions in and out of dimensions.
3. While question and dimension changes may have played a role in these results, we cannot assume it was the only factor influencing these results; other factors such as increased response rate likely contribute to this overall result, and teasing the impact of a specific change would be difficult.
4. We encourage interpreting our climate survey results with knowledge of the edits made, placing appropriate caveats on improvement while also celebrating our success.

### Background

For the 2016-17 administration of the MMSD climate survey, we underwent a significant revision of the questions we included. Our goal for this survey is to collect the best possible information; therefore, we implemented revisions for accessibility, consistency, and clarity. We categorize question changes into five types:

1. **Addition of “Somewhat”** – For these questions, the text of the question did not change from 2015-16 to 2016-17. The only change is the addition of “somewhat” to the second most positive and second least positive responses (“agree” becomes “somewhat agree” and “disagree” becomes “somewhat disagree”).
2. **Wording** – For these questions, the wording of the question itself changed although the idea behind the question did not. An example is the change of a parent question from “The school culture values diversity” to “My child’s school values diversity.”
3. **Scale** – In prior years, many questions had possible responses that did not follow the strongly disagree to strongly agree scale used for most of our questions. We rewrote these questions so a scale of relative agreement made sense, allowing all of our questions to have the same set of possible responses. An example is the change of a parent question from “How responsive are school staff when you have a concern?” to “School staff are responsive when I have a concern.”
4. **New** – These questions are new for 2016-17 and did not have an equivalent in the prior year’s survey for the relevant group.
5. **Deletion** – These questions were asked in 2015-16 but were removed for 2016-17.

We also made changes the overall organization of the survey, specifically relating to how individual questions calculate to the dimensions. We categorize those dimension changes into three types:

1. **Dimension Change** – These questions were moved from one dimension in previous years’ surveys to a new dimension in the 2016-17 survey.
2. **New** – These questions are new for 2016-17 and did not have an equivalent in the prior year’s survey for the relevant group.
3. **Deletion** – These questions were asked in 2015-16 but were removed for 2016-17.

In this report, we examine the potential impact of each type of question and dimension change. Specifically, we want to know how different types of question and dimension changes impact the positivity of responses. For each question and dimension change type, we outline the percent of responses that were positive. In addition, we provide a detailed breakout of all possible responses, from strongly disagree to strongly agree (very negative to very positive). After showing those results, we then provide some conclusions on the potential impact of these changes and how to consider them when reviewing results.

In the body of the report, we focus our analysis on changes to the parent survey. The parent survey received the most substantial edits and thus provides the richest data for analyzing changes. You can find the same information we present for the parent survey for students and staff in the Appendix.



## Findings

### Question Changes

The section below examines the impact of specific types of revisions to questions and the movement in percent positive responses overall. We show results by survey, including both the percentages and the number of questions in a given group. Overall, we see that the three types of question changes (addition of “somewhat,” wording, and scale) all show more positive responses, driven primarily by a movement in the distribution of responses and increase in more strongly positive responses. Changes in wording and scale seem also to decrease the number of neutral responses.

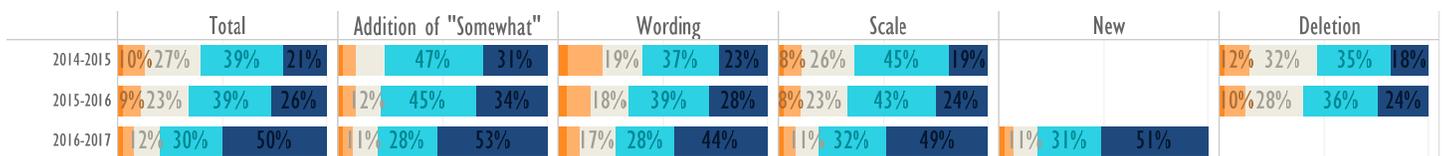
### Parents

The table below shows the percent of responses that were positive by year and revision type for parents.

	Total	Addition of "Somewhat"	Wording	Scale	New	Deletion
2014-2015	60% (n=44)	78% (n=8)	60% (n=3)	63% (n=8)		53% (n=25)
2015-2016	66% (n=45)	79% (n=9)	66% (n=4)	67% (n=8)		60% (n=24)
2016-2017	80% (n=32)	81% (n=9)	73% (n=5)	81% (n=8)	82% (n=10)	

We see that overall positive responses (agree or strongly agree; positive or very positive) by parents improved from 66% in 2015-16 to 80% in 2016-17. Among questions that effectively were unchanged (the “Addition of “Somewhat” category), positivity increased two percentage points, from 79% to 81%. Questions where wording changed increased in positivity by seven percentage points and questions where the scale changed increased in positivity by 14 percentage points. New questions had 82% positive response and deleted questions had 60% positive responses in 2015-16.

The next figures show the full distribution of responses by year and revision type for parents.



First, we see that very positive responses increased quite a bit from 2015-16 to 2016-17, with the largest reductions occurring in neutral and positive (but not very positive) responses. Changes in the total responses that were positive or very positive occurred, but looking only at that combination masks the large jump in very positive responses across revision types. Second, we see that neutral responses decreased noticeably. In particular, questions where we changed the response scale decreased from 23% neutral to 11% neutral. In addition, questions we deleted had 28% neutral responses while new questions for this year had only 11% neutral responses.





## Dimension Changes

### Parents

The next table shows the percent of responses that were positive within each dimension by the type of dimension changes that occurred. The number in parentheses indicates the number of questions reflected in the type of change indicated; for example, five questions were present in the Relationships dimension in 2015-16 that moved to other dimensions in 2016-17. Under the “Dimension Change” column, percentages from 2014-15 and 2015-16 represent questions that moved out of that dimension in 2016-17 while distributions from 2016-17 represent questions that moved into that dimension in 2016-17. For example, questions that were formerly in the Relationships dimension in 2015-16 were 85% positive while questions that moved from other dimensions to Relationships were 80% positive in 2016-17.

		Total	Unmoved	Dimension Change	New	Deletion
Relationships	2014-2015	82% (n=9)	79% (n=2)	85% (n=5)		80% (n=2)
	2015-2016	84% (n=10)	82% (n=3)	85% (n=5)		84% (n=2)
	2016-2017	85% (n=7)	86% (n=3)	80% (n=1)	85% (n=3)	
Teaching and Learning	2014-2015	69% (n=7)	77% (n=1)			68% (n=6)
	2015-2016	74% (n=7)	79% (n=1)			73% (n=6)
	2016-2017	78% (n=8)	78% (n=1)	77% (n=3)	80% (n=4)	
Safety	2014-2015	42% (n=12)	57% (n=4)			34% (n=8)
	2015-2016	48% (n=12)	60% (n=4)			42% (n=8)
	2016-2017	67% (n=6)	66% (n=5)		73% (n=1)	
Institutional Environment	2014-2015	77% (n=1)	77% (n=1)			
	2015-2016	78% (n=2)	78% (n=2)			
	2016-2017	83% (n=2)	83% (n=2)			
School Improvement	2014-2015	58% (n=1)		58% (n=1)		
	2015-2016	53% (n=1)		53% (n=1)		
Family Engagement	2014-2015	55% (n=14)	56% (n=3)	60% (n=2)		54% (n=9)
	2015-2016	62% (n=13)	61% (n=3)	66% (n=2)		61% (n=8)
	2016-2017	84% (n=9)	82% (n=3)	87% (n=4)	84% (n=2)	

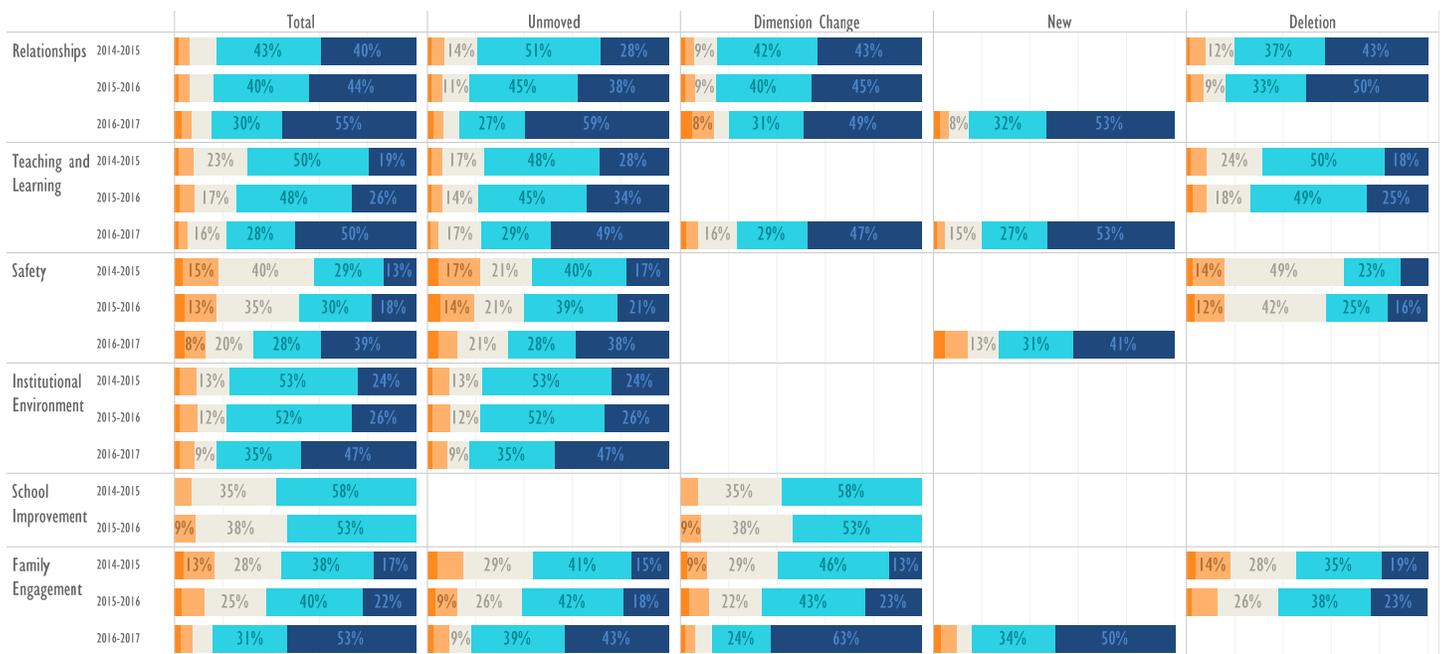
We see from the table above that changes in positive responses by dimension within the parent survey have multiple sources. The largest changes can be observed within the Family Engagement dimension. Three questions remained within the dimension and increased by 21% in positivity; two questions moved out of the dimension that had 66% positivity while four moved into the dimension and had 87% positivity. Finally, eight questions formerly in the Family Engagement dimension were deleted from the survey and had 61% positivity in 2015-16, while two new questions were added to the survey within the Family Engagement dimension and had 84% positivity. Each of these types of change likely contributed to the large increase in positive responses.

Five questions were moved from the Relationships dimension in 2015-16 to other dimensions in 2016-17, although the positivity of these questions did not differ much from the dimension average, so the impact of these moves appears negligible.



Eight questions were deleted from the Safety dimension that had been only 42% positive, so although unmoved questions increased in positivity from year to year within Safety, the deletion of a bank of eight questions that were not positive likely made a significant contribution to overall positive responses.

The next graphic shows the same information as the table above but presents full response distributions, from very negative to very positive. Under the “Dimension Change” column, distributions from 2014-15 and 2015-16 represent questions that moved out of that dimension in 2016-17 while distributions from 2016-17 represent questions that moved into that dimension in 2016-17. For example, questions that were formerly in the Relationships dimension in 2015-16 were 45% very positive while questions that moved from other dimensions to Relationships were 49% very positive in 2016-17.



By focusing on detailed breakouts of responses, our observations from above do not change, but we add the observation that questions moving from other dimensions to Family Engagement also were much more likely to be very positive than those leaving the dimension.



### Conclusions

In examining results by question change type, we saw an increase in positive responses which, in part, is driven by both an increase in very positive responses and a decrease in neutral responses. While this trend was most pronounced in the parent survey, it is also present across staff and student results. We believe that the addition of “somewhat” to the agree and disagree options from 2015-16 to 2016-17 contributed to this change. Although overall positivity has increased, there may be something qualitatively different about a respondent saying they “somewhat agree” as opposed to simply saying they “agree” that pushes respondents toward strong agreement when the option of “agree” only is no longer available. We believe the decrease in neutral responses speaks to the increased clarity in the questions asked during this year’s survey administration. Questions written with greater clarity may encourage respondents to have an opinion that is either positive or negative rather than maintaining a neutral response.

We also believe the scale changes made to questions where the wording of the question itself was unchanged play a significant role. These questions retained the same Likert-style approach of choosing between five options arrayed from



most to least positive. However, there is an obvious difference between, for example, responding “very responsive” to the question “How responsive are school staff when you have a concern?” and responding “strongly agree” to the question “School staff are responsive when I have a concern.” Although the sentiment is similar, the options themselves are qualitatively different, and changes like this naturally may impact how people choose to respond.

While the addition of “somewhat” and the increased clarity of the questions likely contributed to the shift in distribution, they are not the only factors influencing results. Looking at the parent survey, for example, we saw modest increases in positive responses among questions that effectively were unchanged aside from the addition of “somewhat” but questions that had more substantial redevelopment and added/deleted questions showed much greater gains. Further complicating matters, our parent response rate more than doubled from year to year (from around 20% to above 40%), meaning that not only did we change our questions, but also the pool of parents responding to the survey. With so many different factors at play, it would be difficult to tease out whether increases are due to a specific type of question change, or question change at all.

Finally, our review of question changes by dimension illustrates another potential driving factor in changes in positivity by dimension. Questions shifts both in to a dimension and out of a dimension have moved the distribution of responses, along with the addition or deletion of particular questions which contribute to the dimension percent positive. For the staff and student surveys, relatively few questions moved dimensions, so this impact was minimal. For the parent survey, more questions shifted, particularly in the Relationships and Family Engagement dimensions.

While question change is important to understand when interpreting results, it should not discount or discourage the power of the results. Question revisions play an important role in the continuous improvement of the survey instrument, and asking the best, most relevant question possible for improving MMSD should always be a priority. We encourage interpreting our climate survey response changes with knowledge of the edits made, placing appropriate caveats on result improvement while also celebrating our gains and focusing on this year’s responses to find our greatest successes and greatest areas for improvement.



## Appendix: Student and Staff Results

### Question Changes

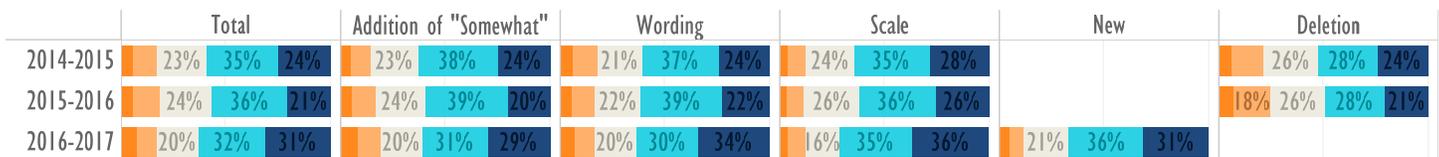
#### Students

The table below shows the percent of responses that were positive by year and revision type for students.

	Total	Addition of "Somewhat"	Wording	Scale	New	Deletion
2014-2015	59% (n=34)	63% (n=17)	61% (n=6)	64% (n=1)		53% (n=10)
2015-2016	57% (n=37)	59% (n=19)	61% (n=7)	62% (n=1)		49% (n=10)
2016-2017	62% (n=33)	60% (n=19)	64% (n=8)	71% (n=1)	67% (n=5)	

In total, positive responses improved by five percentage points. Among questions that effectively were unchanged, positive responses were up one percentage point, from 59% to 60%. Wording change questions improved three percentage points and scale change questions improved nine percentage points. New questions were 67% positive while deleted questions were 49% positive in 2015-16.

The next figures show the full distribution of responses by year and revision type for students.



As with the parent survey, we see an increase in very positive responses, even for questions that effectively were unchanged (Addition of "Somewhat"). However, we also see an increase in very negative responses; although these remain very low overall, they are higher than in previous years. Also similar to the parent survey, we see noticeable decreases in neutral responses, particularly for the questions where the scale changed. We also see decreases in the second and fourth most positive response categories (somewhat agree/positive and somewhat disagree/negative), suggesting more extreme responses overall relative to prior years, with the balance tilting toward very positive.



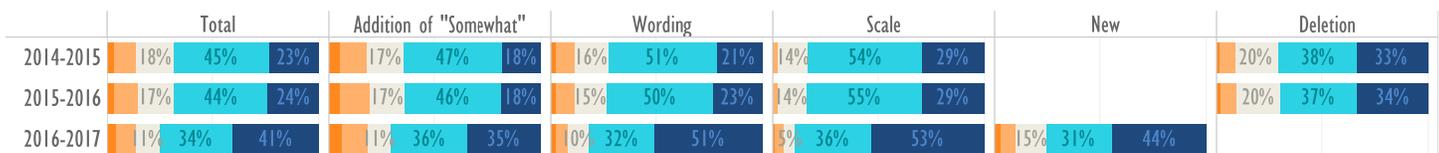
#### Staff

The table below shows the percent of responses that were positive by year and revision type for staff.

	Total	Addition of "Somewhat"	Wording	Scale	New	Deletion
2014-2015	68% (n=40)	65% (n=21)	72% (n=6)	83% (n=1)		71% (n=12)
2015-2016	68% (n=42)	64% (n=22)	74% (n=7)	84% (n=1)		70% (n=12)
2016-2017	75% (n=38)	71% (n=21)	82% (n=8)	90% (n=1)	75% (n=8)	

In total, positive responses increased seven percentage points. Questions that were effectively unchanged (Addition of "Somewhat") increased seven percentage points as well. Wording and scale changes increased by eight and six percentage points, respectively. New questions were 70% positive while deleted questions were 70% positive in 2015-16. The staff survey is distinct from the parent and student surveys in that the overall percent increase in positivity is similar across revision types.

The next figures show the full distribution of responses by year and revision type for staff.



As with the other two surveys, very positive responses increased and neutral responses decreased. Staff neutral responses also were noticeably lower than parent or student neutral responses.



## Dimension Changes

### Students

The next table shows the percent of responses that were positive within each dimension by the type of dimension changes that occurred. The number in parentheses indicates the number of questions reflected in the type of change indicated; for example, two questions were present in the Teaching & Learning dimension in 2016-17 that had been asked in other dimensions during prior years. Under the “Dimension Change” column, percentages from 2014-15 and 2015-16 represent questions that moved out of that dimension in 2016-17 while distributions from 2016-17 represent questions that moved into that dimension in 2016-17. For example, a question that was formerly in the Relationships dimension in 2015-16 was 68% positive while questions that moved from other dimensions to Teaching and Learning were 60% positive in 2016-17.

		Total	Unmoved	Dimension Change	New	Deletion
Relationships	2014-2015	64% (n=10)	63% (n=9)			74% (n=1)
	2015-2016	62% (n=11)	60% (n=9)	68% (n=1)		74% (n=1)
	2016-2017	63% (n=10)	63% (n=9)		62% (n=1)	
Teaching and Learning	2014-2015	78% (n=8)	78% (n=7)			79% (n=1)
	2015-2016	78% (n=9)	78% (n=8)			80% (n=1)
	2016-2017	74% (n=13)	78% (n=8)	60% (n=2)	72% (n=3)	
Safety	2014-2015	47% (n=14)	47% (n=6)			46% (n=8)
	2015-2016	43% (n=14)	45% (n=6)			42% (n=8)
	2016-2017	50% (n=8)	49% (n=7)		57% (n=1)	
Institutional Environment	2014-2015	49% (n=1)	49% (n=1)			
	2015-2016	41% (n=2)	41% (n=2)			
	2016-2017	43% (n=2)	43% (n=2)			
School Improvement	2014-2015	49% (n=1)		49% (n=1)		
	2015-2016	49% (n=1)		49% (n=1)		

Overall, relatively few questions moved across dimensions within the student survey. The most noticeable finding above is the impact of deleting eight questions from the Safety dimension that only were 42% positive in aggregate.

The next graphic shows the same information as the table above but presents full response distributions, from very negative to very positive. Under the “Dimension Change” column, percentages from 2014-15 and 2015-16 represent questions that moved out of that dimension in 2016-17 while distributions from 2016-17 represent questions that moved into that dimension in 2016-17. For example, a question that was formerly in the Relationships dimension in 2015-16 was 20% very positive while questions that moved from other dimensions to Teaching and Learning were 25% very positive in 2016-17.



		Grand Total			Unmoved			Dimension Change			New			Deletion		
Relationships	2014-2015	24%	40%	24%	25%	40%	23%						19%	43%	31%	
	2015-2016	25%	42%	20%	26%	41%	20%	25%	48%	20%			20%	46%	28%	
	2016-2017	20%	33%	30%	20%	32%	31%				19%	39%	23%			
Teaching and Learning	2014-2015		42%	36%		41%	37%							46%	33%	
	2015-2016		46%	32%		45%	33%							52%	28%	
	2016-2017		34%	39%		33%	45%	24%	36%	25%	21%	36%	36%			
Safety	2014-2015	27%	27%	20%	25%	30%	17%						18%	28%	24%	
	2015-2016	20%	28%	26%	19%	26%	31%						22%	29%	23%	
	2016-2017	24%	28%	23%	24%	27%	22%				25%	32%	26%			
Institutional Environment	2014-2015	29%	37%		29%	37%										
	2015-2016	19%	31%	31%	19%	31%	31%									
	2016-2017	19%	22%	26%	19%	22%	26%									
School Improvement	2014-2015	30%	39%					30%	39%							
	2015-2016	30%	41%					30%	41%							

As with the parent survey, the detailed breakout does not change our findings. Instead, it helps us see how the changes discussed above also impacted the percent of responses that were very positive.





### Staff

The next table shows the percent of responses that were positive within each dimension by the type of dimension changes that occurred. The number in parentheses indicates the number of questions reflected in the type of change indicated; for example, three questions were present in the Relationships dimension in 2015-16 that moved to other dimensions in 2016-17. Under the “Dimension Change” column, percentages from 2014-15 and 2015-16 represent questions that moved out of that dimension in 2016-17 while distributions from 2016-17 represent questions that moved into that dimension in 2016-17. For example, questions that were formerly in the Relationships dimension in 2015-16 were 78% positive while questions that moved from other dimensions to Teaching and Learning were 78% positive in 2016-17.

		Total	Unmoved	Dimension Change	New	Deletion
Relationships	2014-2015	67% (n=11)	67% (n=7)	79% (n=2)		55% (n=2)
	2015-2016	69% (n=12)	69% (n=7)	78% (n=3)		53% (n=2)
	2016-2017	77% (n=9)	77% (n=7)		79% (n=2)	
Teaching and Learning	2014-2015	78% (n=8)	78% (n=8)			
	2015-2016	78% (n=8)	78% (n=8)			
	2016-2017	79% (n=14)	83% (n=8)	78% (n=4)	71% (n=2)	
Safety	2014-2015	70% (n=14)	58% (n=6)			79% (n=8)
	2015-2016	69% (n=14)	57% (n=6)			77% (n=8)
	2016-2017	66% (n=8)	68% (n=7)		50% (n=1)	
Institutional Environment	2014-2015	60% (n=2)	60% (n=2)			
	2015-2016	56% (n=3)	56% (n=3)			
	2016-2017	63% (n=3)	63% (n=3)			
School Improvement	2014-2015	57% (n=5)		66% (n=2)		49% (n=3)
	2015-2016	58% (n=5)		66% (n=2)		51% (n=3)
Family Engagement	2016-2017	82% (n=4)		77% (n=1)	84% (n=3)	

The staff survey had more questions move across dimensions than the student survey but fewer than the parent survey. Particularly noticeable is the eight percentage point increase in positivity for staff in Relationships questions that were unmoved, suggesting that the overall increase in positivity within that dimension was not influenced significantly by dimension changes and may have manifested even without those changes.

The next graphic shows the same information as the table above but presents full response distributions, from very negative to very positive. Under the “Dimension Change” column, percentages from 2014-15 and 2015-16 represent questions that moved out of that dimension in 2016-17 while distributions from 2016-17 represent questions that moved into that dimension in 2016-17. For example, questions that were formerly in the Relationships dimension in 2015-16 were 25% very positive while questions that moved from other dimensions to Teaching and Learning were 43% very positive in 2016-17.



		Grand Total			Unmoved			Dimension Change			New			Deletion		
Relationships	2014-2015	19%	49%	18%	19%	49%	18%	55%	24%				24%	42%		
	2015-2016	17%	49%	20%	18%	49%	20%	53%	25%				16%	24%	40%	
	2016-2017		36%	41%		37%	40%				33%	46%				
Teaching and Learning	2014-2015		56%	22%		56%	22%									
	2015-2016		54%	24%		54%	24%									
	2016-2017		34%	45%		35%	47%	35%	43%	18%	29%	42%				
Safety	2014-2015	17%	37%	33%	17%	37%	33%						17%	36%	43%	
	2015-2016	17%	36%	33%	18%	38%	19%						17%	34%	43%	
	2016-2017		29%	37%		30%	38%			34%	25%	26%				
Institutional Environment	2014-2015	17%	46%	14%	17%	46%	14%									
	2015-2016	19%	44%		19%	44%										
	2016-2017	19%	36%	27%	19%	36%	27%									
School Improvement	2014-2015	25%	47%					20%	52%				17%	30%	41%	
	2015-2016	25%	46%					19%	50%	16%			31%	43%		
Family Engagement	2016-2017		36%	47%				45%	32%		33%	52%				

Looking at detailed distributions supports the finding above for staff in the Relationships dimension, as the percent of responses that were very positive doubled among questions that did not move.

