Using Parental Satisfaction to Evaluate Virtual Charter Schools

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Abstract

There is no consensus regarding the optimal method for evaluating the effectiveness of schools. This paper argues that parental satisfaction is the best criteria for assessing educational success in the near-term, despite its limitations. Parental satisfaction has stronger predictive power for later life outcomes than do standardized test scores and is less subject to manipulation than are other measures. Using parental satisfaction to evaluate the success of a larger operator of virtual charter schools shows that those schools are achieving very positive results. These positive outcomes are reconciled with negative test score results produced by an earlier evaluation and put in perspective relative to the parental satisfaction effects of other school choice programs.

> There is no consensus on the best way to evaluate educational effectiveness because there are legitimate disagreements about the primary purposes of education. In this paper, we argue that parental satisfaction is the optimal method for evaluating educational success. Using this approach, we examine virtual charter schools operated by Stride K12 and find that, on average, they are producing positive outcomes.

The Case for Focusing on Parental Satisfaction

Relying on parental satisfaction to evaluate educational outcomes is similar to Winston Churchill's views on democracy – parental satisfaction may be the worst criteria except for all the other criteria that have been tried.

We acknowledge the shortcomings of appealing to parental satisfaction to assess educational quality. Parents may not have a strong basis for comparison when they report their satisfaction. Parents may have preferences that do not align with those of taxpayers or others who may have an interest in educational outcomes. Parents may have little or low-quality information about the education their children are receiving.

Given the challenges with asking parents to assess educational quality, why do we nonetheless think it yields useful information? First, education should be understood as an extension of parenting. Education is just one of many things that parents pursue for their children to prepare them for adult life. If parents are primarily entrusted with raising their children, then their views on services that assist in this effort should be given priority. Second, parents are well-positioned to collect and assess information about their own children's education. In most cases, no adult knows children as well as their parents, so the information collected by parents

is most likely to completely and accurately capture each child's unique situation. Third, in most cases, parents are more motivated than anyone else to ensure their children succeed, even if parents do not have technical expertise in education policy.

The advantages of parental satisfaction as an indicator of educational quality is not merely a theoretical argument; it can and has been demonstrated empirically. Specifically, there is a large and growing research literature finding that parental preference is a stronger predictor of later-life outcomes for children than are other measures, like standardized test scores. For example, a recent study by Diether W. Beuermann and C. Kirabo Jackson examines the education system in Barbados, where schools use test score cut-offs to determine which students gain admission. The cut-offs create a discontinuity allowing for rigorous causal identification of whether students who barely gain admission to a desired school have different outcomes than those with barely lower prior test scores who are denied admission.

The authors find that future test score gains are no greater for students who were admitted to the schools their parents preferred compared to similar students who were not admitted. For boys, there are some signs that the effect on test score gains may actually be negative. But when they look at longer-term outcomes, including educational attainment, employment, and earnings, they find significant benefits for students who were admitted to the schools the parents preferred. These positive effects were driven mostly by gains for girls. When the authors explore explanations for these gains, they find a significant reduction in teen motherhood for girls admitted to preferred schools, which contributed to their educational attainment, later employment, and earnings. Both boys and girls also experienced significant long-term health benefits as measured by a healthy BMI, regular exercise, and dental check-ups if they gained admission to the schools their parents preferred. The researchers conclude: "This

suggests that preferred schools may promote productive habits and attitudes that are not measured by test scores but contribute to overall well-being. This may represent a significant, previously undocumented, return to school quality."

In other words, parents were able to detect important aspects of school quality that well-trained experts—guided by test scores—could not. Those experts would conclude that the schools that parents prefer cannot improve student outcomes because test scores do not rise when students get into the school their parents want. But parents are better arbiters of school quality than experts focused on test scores. Parents prefer schools that improve meaningful, long-term outcomes. Specifically, parents can choose schools that are more effective in developing character, making the students less likely to get pregnant as teens and more likely to be engaged in positive health behaviors. For boys, this may not make a big difference in the labor market (although it does not harm those outcomes), but for girls, these character and health improvements seem to drive higher educational attainment, employment, and earnings.

The Beuermann and Jackson study is consistent with a long line of research that finds a disconnect between short-term test score outcomes and long-term life outcomes, as described in a recent meta-analysis by Collin Hitt, Michael Q. McShane, and Patrick J. Wolf. They reviewed all rigorous studies of school choice programs that provided results on both near-term test scores as well as later-life outcomes, such as graduating high school, attending college, and completing a four-year college degree. If test scores are a reliable indicator of later-life outcomes, then the direction and statistical significance of the results for these results within the same studies should be consistent.

The researchers found only a weak relationship between rigorously identified changes in test scores and later outcomes. Importantly, if we focus on studies that yield negative effects of choice schools on test scores, most of the time those schools generate positive results for later life outcomes. Of the ten analyses showing negative point estimates for English Language Arts (ELA), eight produced positive effects on high school graduation outcomes. Four of the six studies with negative ELA estimates had positive effects on college attendance. And three of the five studies with both ELA and college completion information had negative results for ELA but positive results for getting a college degree.

The same pattern exists when looking at math test outcomes. Of the seven studies showing negative estimated effects from schools of choice on math test scores, six also find positive effects on high school graduation rates. And three studies showed positive results for college attendance and completion among the four that also yielded negative math outcomes.[i]

In a clear majority of cases, schools of choice that were shown by rigorous research to yield negative point estimates on test scores also generated positive point estimates on graduating high school as well as on attending and completing college. That is, in a majority of these cases, parents were better predictors of long-term life outcomes than experts would have been if they relied on negative test results. Parental satisfaction is a more reliable indicator of long-term outcomes than are expert decisions based on standardized tests.

Keep in mind that the meta-analysis by Hitt and colleagues is based on rigorously identified effects of how schools *change* student test performance as well as later life outcomes. No state accountability system or charter authorizer is relying upon similarly rigorous estimated effects of how schools affect outcomes. For the most part, state accountability systems and charter

authorizers examine the *level* of student test scores. As Josh Angrist and his colleagues convincingly demonstrate, student test score level reveal more about the demographics of a school than the quality of a school. That is, the type of test score information on which state accountability systems and charter authorizers rely is systematically biased against schools that serve students with higher concentrations of students from disadvantaged backgrounds. This provides perverse incentives to schools to avoid serving disadvantaged students, if they can, or to focus narrowly on maximizing test score performance to the detriment of other goals – both of which exacerbate inequities in education.

Even on the rare occasion when state accountability systems and charter authorizers consider test score growth, they cannot identify causal effects of schools on achievement. State accountability officials and charter authorizers make decisions on information that is significantly lower quality than the test score outcomes found in rigorous research, but parental satisfaction is a better predictor than even the higher quality test score information generated in rigorous research.

Other measures have been proposed and are occasionally used to assess K-12 school quality, such as attendance, disciplinary infractions, socio-emotional tests, and high school graduation. Unfortunately, each of these measures is subject to manipulation by the schools if it becomes part of how they are evaluated. Attendance can be misreported, or large investments can be made in truancy officers to round up students who learn little in the schools they are forced to attend. Disciplinary infractions can be reduced on paper if schools simply overlook misbehavior and fail to punish infractions. Social-emotional measures are mostly based on self-reported answers to surveys on which students can be guided to give desirable responses. High school

graduation rates have been repeatedly misreported by schools and can be rendered meaningless through lowered graduation requirements and credit recovery programs.

Parental satisfaction is nearly impossible for schools to manipulate. Parents do not report their satisfaction while physically standing in school buildings under the watchful eyes of the educators who give them grades. Parents also have no incentive to misreport their satisfaction. Finally, parental satisfaction incorporates all the other measures of school quality to yield a single, summative assessment. Parents typically have information on their children's grades and standardized test results. They have direct knowledge about how their children behave and whether they attend school regularly. They have contextual knowledge to assess whether their own children are on track to graduate and thrive. All of these indicators, appropriately discounted by parental impressions of their reliability, contribute to parent satisfaction with the quality of an education.

Parental Satisfaction Outcomes for Stride K12 Virtual Charter Schools

Parental satisfaction is the best way to measure school quality because it is the strongest predictor of later-life outcomes, is not easily subject to manipulation, and is the most likely to incorporate multiple factors . Accordingly, we focus upon parental satisfaction outcomes to assess the success of Stride K12's virtual charter schools. We find overwhelmingly positive outcomes.

We examined results of a survey Stride K12 administered to parents of students enrolled in their virtual charter schools in October of 2021. Stride K12 delivered the survey to 77,392

parents, and 7,799 answered at least some questions. This yields a 10.0 percent response rate, which is fairly high for an emailed survey. Because the survey instrument included dozens of questions, however, some of the respondents failed to answer every question, resulting in 5,402 completed surveys. Even using this more conservative number of completed surveys yields a 7.0 percent response rate, which is still respectable for an emailed survey. To the extent that non-response might bias our results, it is likely to depress satisfaction responses because the most unsatisfied parents are more motivated to provide feedback than most content parents.

When parents are asked "Overall, how satisfied are you with your child's current school?" the vast majority give positive responses. In response to this question, 92.9 percent of parents at Stride K12 virtual charter schools report being completely or somewhat satisfied, 4.5 percent report being completely or somewhat dissatisfied, and 2.6 percent report being neither satisfied nor dissatisfied. (See Figure 1).

When these same parents are asked about "the school your child attended before enrolling in a school managed by K-12," the answers are much more negative. Fewer than half (41.6%) said that they were completely or somewhat satisfied with their child's prior school. A greater proportion (46.7%) said that they were completely or somewhat dissatisfied with that prior school. And 11.7% reported being neither satisfied nor dissatisfied. (See Figure 2).

Wanting their children to be safer is clearly an important driver of this higher level of satisfaction in virtual charter schools. Parents were asked about the extent to which they agreed or disagreed with the following statement: "My child feels safer at his or her current school compared to the previous school." More than three-quarters of respondents (75.4%)

somewhat or strongly agreed that their child is safer at their current Strike/K-12 virtual charter school than their previous school. Only 2.1% disagreed, and 22.5% said that they felt neutral about the safety comparison. (See Figure 3).

The concern about school safety is almost certainly related to bullying problems that families reported in their prior school. Almost half (48.2%) of parents agreed or strongly agreed with the statement: “Bullying was a problem at my previous school.” Only 29.9% disagreed with the remainder not offering an opinion. (See Figure 4) By contrast, 90.4% of parents say that their child is never or almost never bullied in their current school. (See Figure 5).

In addition to a greater sense of safety, parents emphasize how much more engaged and motivated to learn their children are in a Stride K12 virtual charter than in their prior school. An overwhelming majority (70.1%) of parents report that their child is “more engaged than at the previous school,” while only 5% report that their child is less engaged. (See Figure 6).

Perhaps because of higher level of engagement, most parents (57.9%) say that their child is more “motivated to graduate” than they were at the prior school. Only 6.9% say that their child is less motivated to graduate now that they are in a Stride K12 virtual charter school. (See Figure 7). The clear majority of parents (62.1%) also agree that “my child gives more effort at the current school compared to the previous school.” Less than a tenth of parents (9.3%) disagree with this statement. (See Figure 8).

Parents may chalk up these improvements in motivation to their observation that “Instruction moves at a more appropriate pace for my child compared to the previous school.” When asked about whether they agreed with this statement about the pace of instruction, 69.1% of the parents agreed compared to 7.2% expressing disagreement. (See Figure 9).

When parents were asked about the biggest concern they had prior to enrolling their child in virtual schooling, the most common answer was "lack of socialization" (33.7%). No other concern was more commonly expressed than the response that parents had "no concerns" (23.9%). (See Figure 10). Consistent with unease about socialization, more parents (37.7%) reported that their child has fewer "close friends at his or her current school compared to the previous school" than the proportion who report the opposite (19.9%). (See Figure 11). But it appears that parents were not particularly troubled by the change in the number of friends since most (52.7%) also reported that their biggest concern about virtual schooling "went away." Perhaps some of the friends at the prior school were part of the problem and the smaller number at the virtual charter were sufficient. (See Figure 12).

In general, most parents (54.8%) agree that their current Stride K12 virtual charter school "has a better school culture than the previous school." Only 7.7% disagreed that the school culture is better. (See Figure 13). The result is that most parents (62.1%) report that their "child is more excited to start the day compared to the previous school." Only 9.3% disagree with that statement. (See Figure 14).

Reconciling Stride K12 Parental Satisfaction Results with CREDO Test Results

While these parental satisfaction findings suggest positive outcomes for Stride K12 virtual charter schools, a commonly cited analysis by a research organization called CREDO suggests that students who enroll in online charter schools have much lower test scores than peers in traditional public schools . How can these dramatically different findings be reconciled?

It is unlikely that Stride K12 schools have significantly different test score results from those found for all online charter schools. Stride K12 has a large share of the virtual charter market and does not appear to be operating in ways that are notably different from other providers in that sector. If CREDO's negative test score results are valid, they would likely apply to Stride K12 virtual charter schools as much as other online charters.

It is also unlikely that CREDO's negative test score results can be reconciled with positive parental assessments by appealing to the disconnect between test scores and later life outcomes documented earlier in this paper. The CREDO findings—that online charter schools are associated with a loss of 72 days of learning in reading and 180 days of learning in math—are orders of magnitude more negative than other research that finds a disconnect between test score growth and later-life outcomes.

These estimates of lost days of learning are derived from standard deviation effects sizes—a loss of .10 standard deviations for reading and .25 for math. A loss of 180 days of learning would be the equivalent of an entire academic year, which would mean that students in online charter schools literally learned nothing in an entire year. It strains credibility to claim that a negative effects size of .25 standard deviations corresponds to a complete halt in learning.

Even if we just focus on the negative results reported as effects sizes rather than the harder to believe conversion of those effects into lost days of learning, we are still left with the puzzle of how to reconcile those results with the positive parental satisfaction findings. The most likely explanation for the discrepancy is that CREDO's research methodology is strongly biased toward finding negative test score results.

CREDO describes their research design by giving the false impression that it is the equivalent of a randomized experiment. The authors suggest they compare virtual charter students with "virtual twins." But CREDO's methodology does not compare twins, virtual or otherwise.[ii]

All CREDO is doing is comparing two groups of students who are similar on a limited set of observable characteristics — race, age, gender, and prior achievement scores. "Matching" students on these observable characteristics is just as prone to selection bias as any other observational study that controls for a handful of observed characteristics. Students who choose to attend virtual charter schools are likely to differ from those who remain in traditional public schools in ways that are not captured by their race, age, gender, and prior test score. A virtual student's desire to switch to a dramatically different kind of school may well be associated with developments in their life that might affect the future trajectory of their test scores. In prior research, we provide evidence that suggests virtual charter school students are likely to have usually negative experiences in their previous school.

CREDO overstates the strength of their methodology by referring to their approach as one that compares "virtual twins." They say: "a 'virtual twin' was constructed for each …student by drawing on the available records of students with identical traits and identical or very similar baseline test scores" (p. 3). This description gives the false impression that they are comparing "identical" students in different sectors. In truth, they are only comparing students who are similar on a handful of observed characteristics. Two children might both be white, and female, and have similar test scores in the previous year, but that does not make them "twins," nor would it be reasonable to describe them as having "identical traits."

CREDO's analysis falls well short of the random assignment studies, which are the gold-standard in social scientific research. Studies with true experimental design are not subject to selection bias because only chance determines whether students are "treated" (with virtual schooling, in this case) or in the control group (traditional public schooling, in this case). On average, students compared in randomized control trials (RCTs) are truly identical on all observed and unobserved characteristics. They really are virtual twins, unlike the comparisons made by CREDO.

Those who defend the CREDO approach might argue that the CREDO methodology produced results that are similar to experimental studies in a few locations—and thus, selection bias is therefore not an issue. This is a faulty conclusion. Finding that CREDO's observational method sometimes produces similar results to RCTs only proves that selection did not bias the results *in those cases*. In other cases, especially with respect to virtual charters, certain schools may attract students who are very different in their future achievement trajectory. In these cases, RCTs would produce very different results from an observational study. Without random assignment, evaluations of online charters are clearly susceptible to this type of selection bias, and the CREDO results are likely strongly and negatively biased.

The way CREDO's negative test score findings and the positive parental satisfaction results reported in this paper can be reconciled is by understanding that CREDO is significantly overstating its negative test score results. A more rigorous randomized experiment of the effect of virtual charter schools on test scores might produce null or even positive results. Those findings would be consistent with the parental satisfaction outcomes reported here.

How Do Stride K12 Parental Satisfaction Results Compare to Those of Other Choice Schools?

The positive parental satisfaction outcomes should come as little surprise. After all, if parents are not satisfied, they are likely to withdraw from the school in search of something more suited to the needs of their child. Given that school choice options are constrained and that there are costs associated with switching, however, positive satisfaction results are not guaranteed. As flight attendants like to remind us, we have choices when it comes to airlines, but many people also report dissatisfaction with their travel experiences.

Unlike the case of airlines, school choice produces high rates of parental satisfaction across many programs using a variety of research designs. In a systematic review of studies examining parental satisfaction results of private school choice programs, Evan Rhinesmith finds consistently positive and large benefits, including several that use randomized experiments to identify causal effects.

Corey DeAngelis examined a nationally representative sample of parents and students and found significantly higher levels of satisfaction among both private and charter schools relative to traditional public schools. Families that choose private schools reported even greater satisfaction with their choice than those who choose charter schools.

Positive parental satisfaction results for Stride K12 virtual charter schools are consistent with a broader pattern of parental satisfaction for choice schools. Rather than being seen as an inferior option with sub-par test outcomes, as the CREDO findings have led some people to believe, virtual charter schools should be seen as another type of choice with similarly positive

results. Online education may not be the right choice for all students—especially when it is offered by brick and mortar schools that have no experience with remote education, as the pandemic has revealed. But when delivered by schools designed as virtual schools and for the kids who need it, parental satisfaction results show that it can be a very effective type of education.

Figure 1. "Overall, how satisfied are you with your child's current school?"

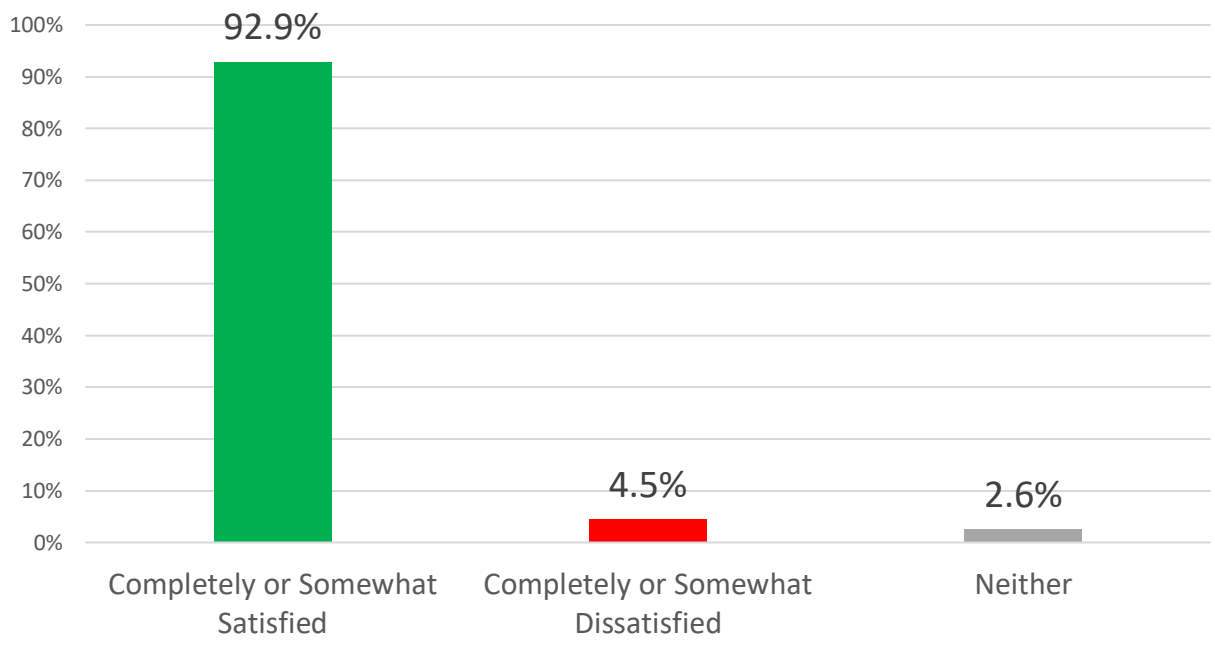


Figure 2. “Overall, how satisfied were you with the school your child attended before enrolling in a school managed by K-12?”

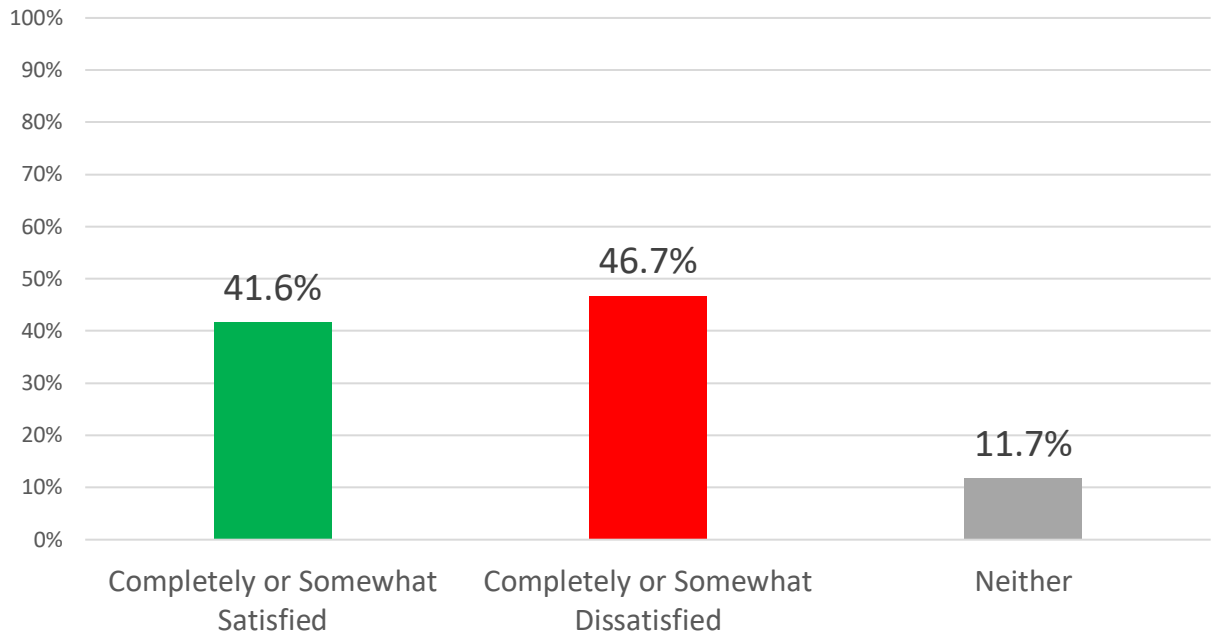
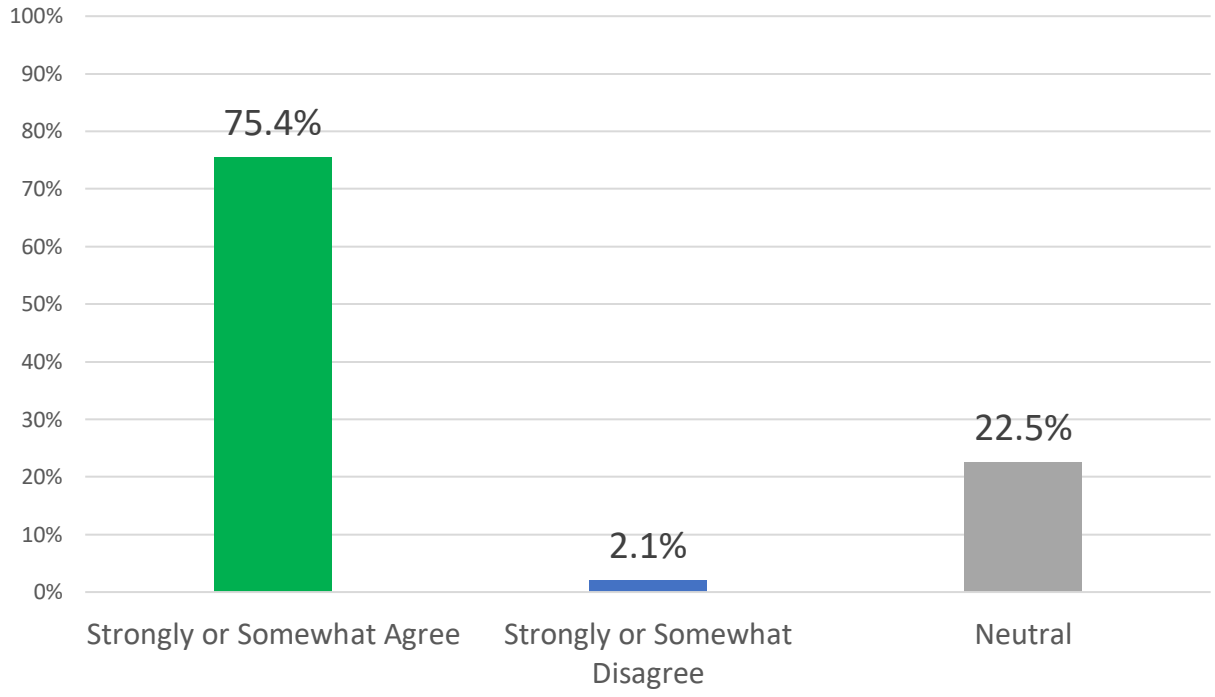


Figure 3. “My child feels safer at his or her current school compared to the previous school.”



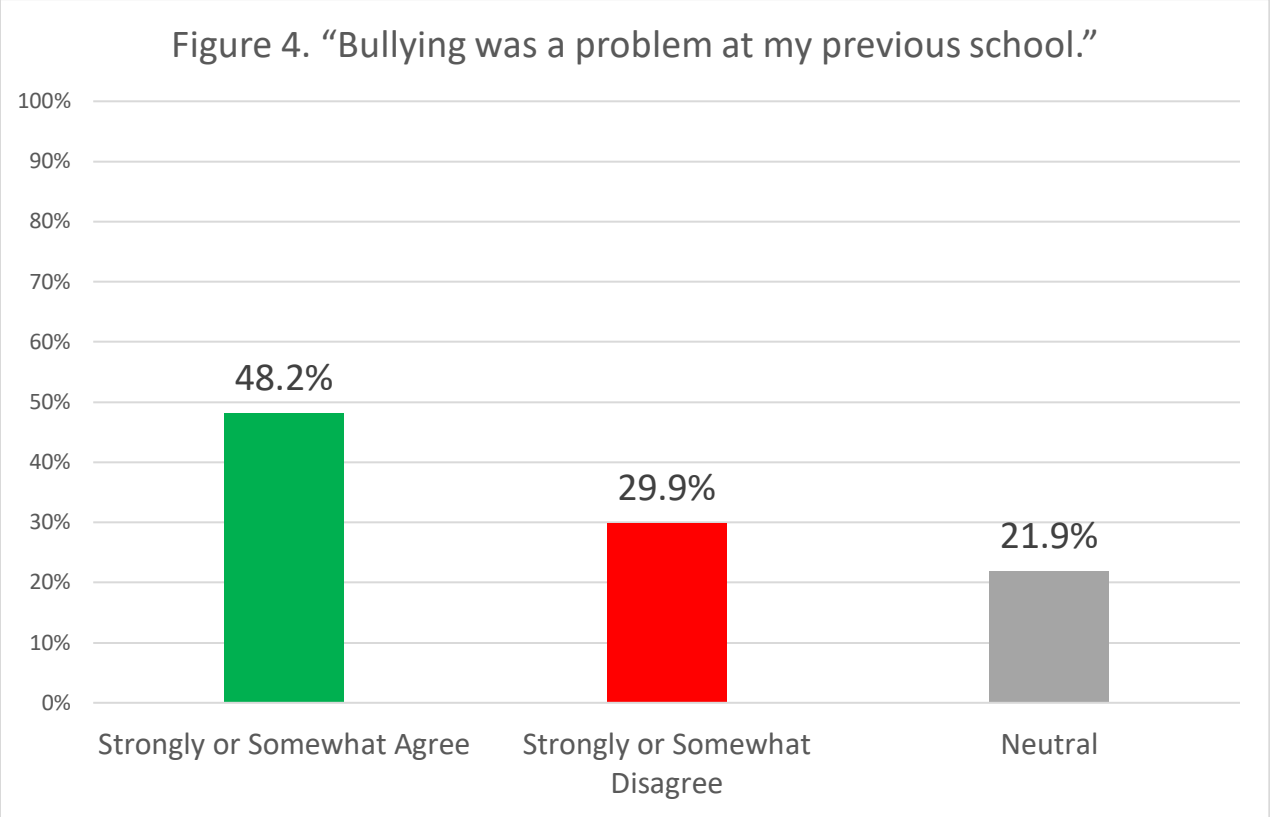


Figure 4. “Bullying was a problem at my previous school.”
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
48.2%
29.9%
21.9%
Strongly or Somewhat Agree
Strongly or Somewhat Disagree
Neutral

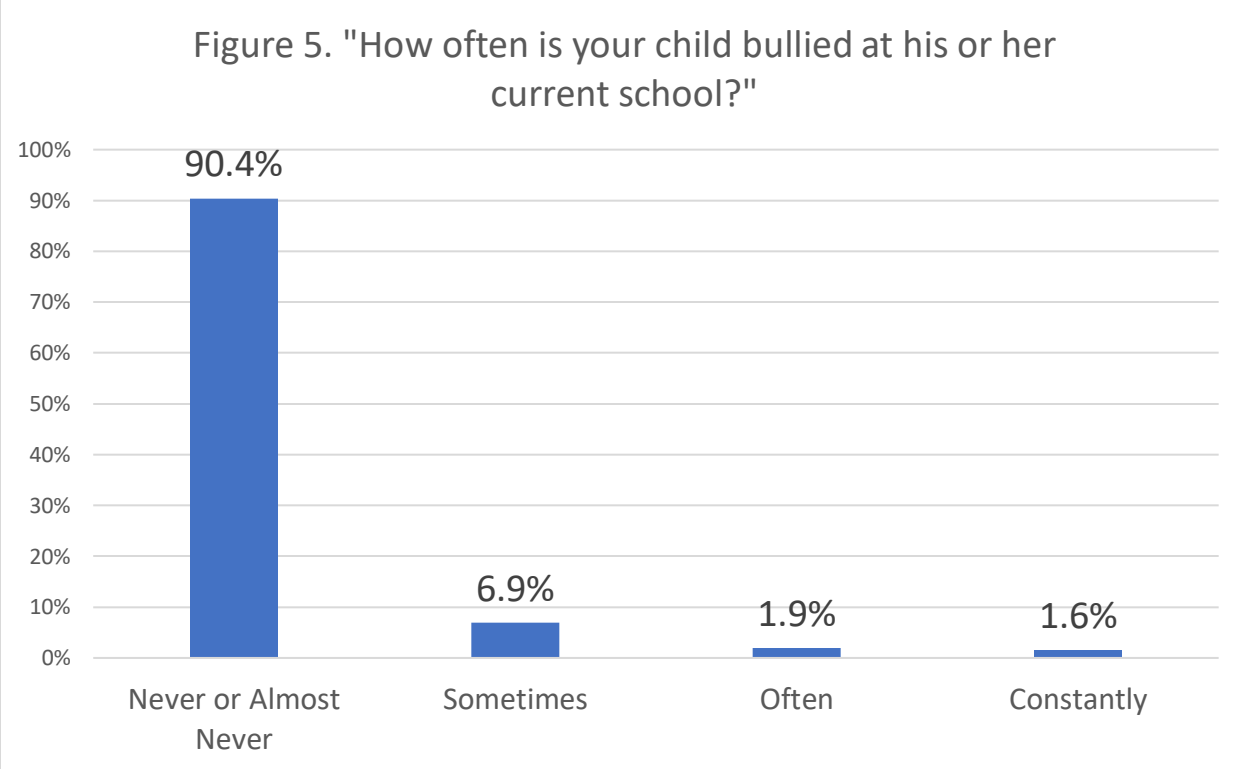


Figure 5. "How often is your child bullied at his or her current school?"
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
90.4%
6.9%
1.9%
1.6%
Never or Almost Never
Sometimes
Often
Constantly

Figure 6. "After switching to your current school, how engaged do you feel in your child's education?"

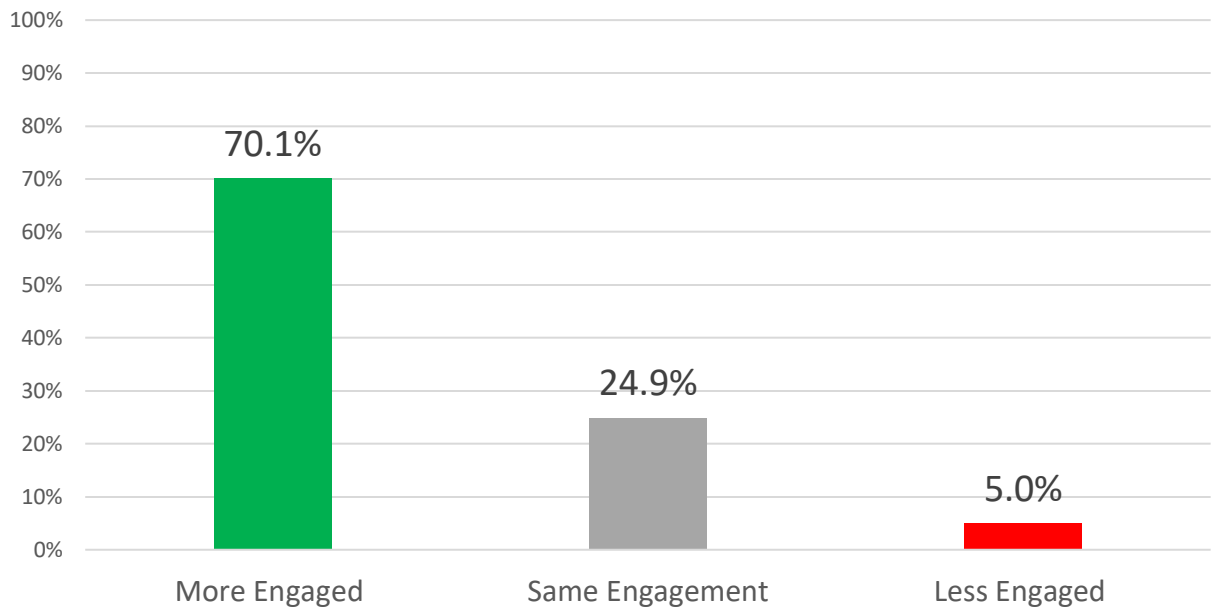


Figure 7. "My child is more motivated to graduate at his or her current school compared to the previous school."

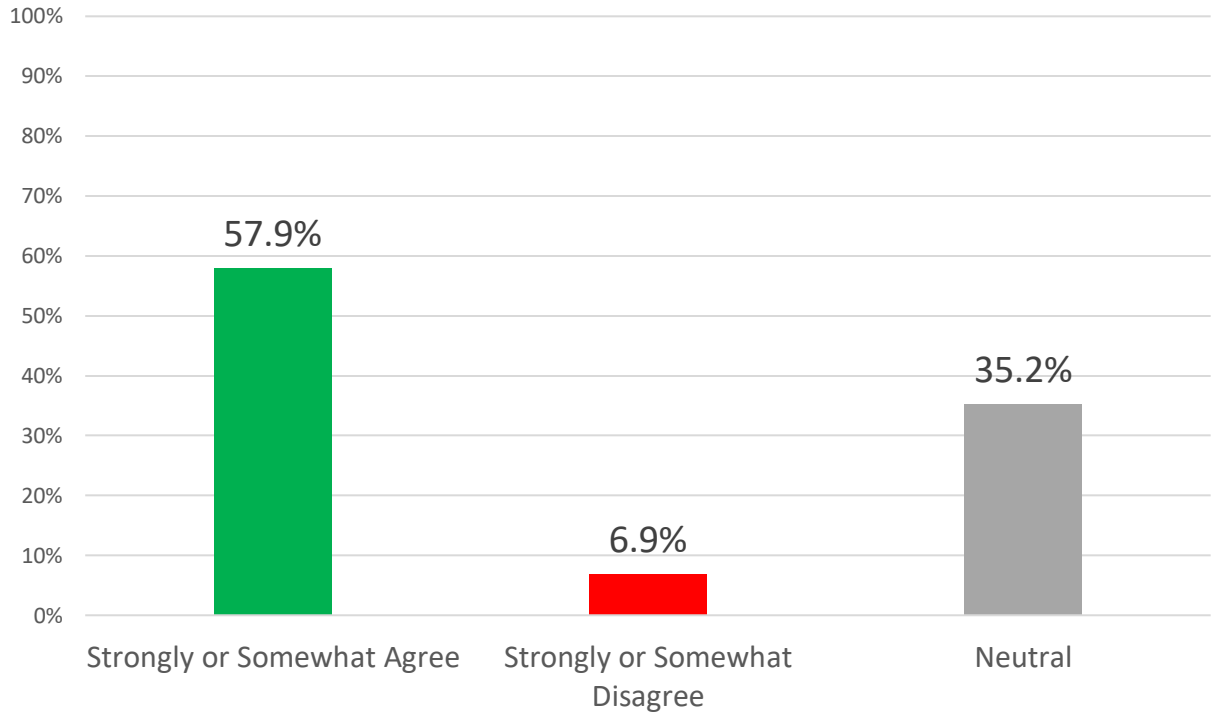


Figure 8. “My child gives more effort at the current school compared to the previous school.”

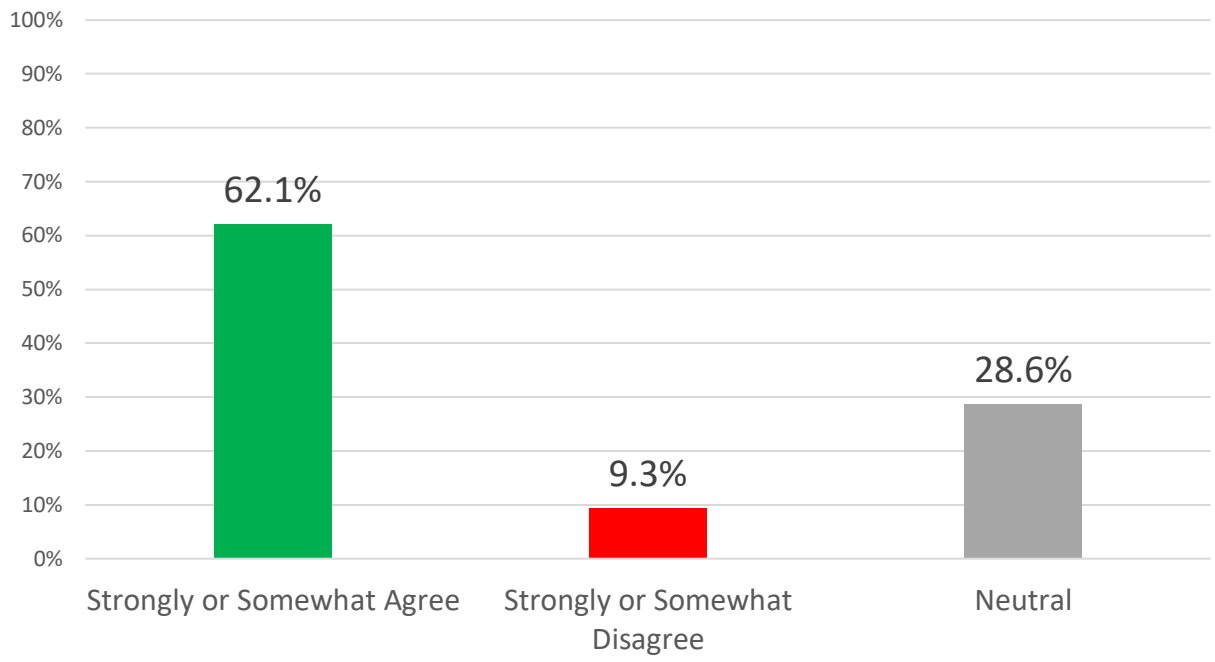
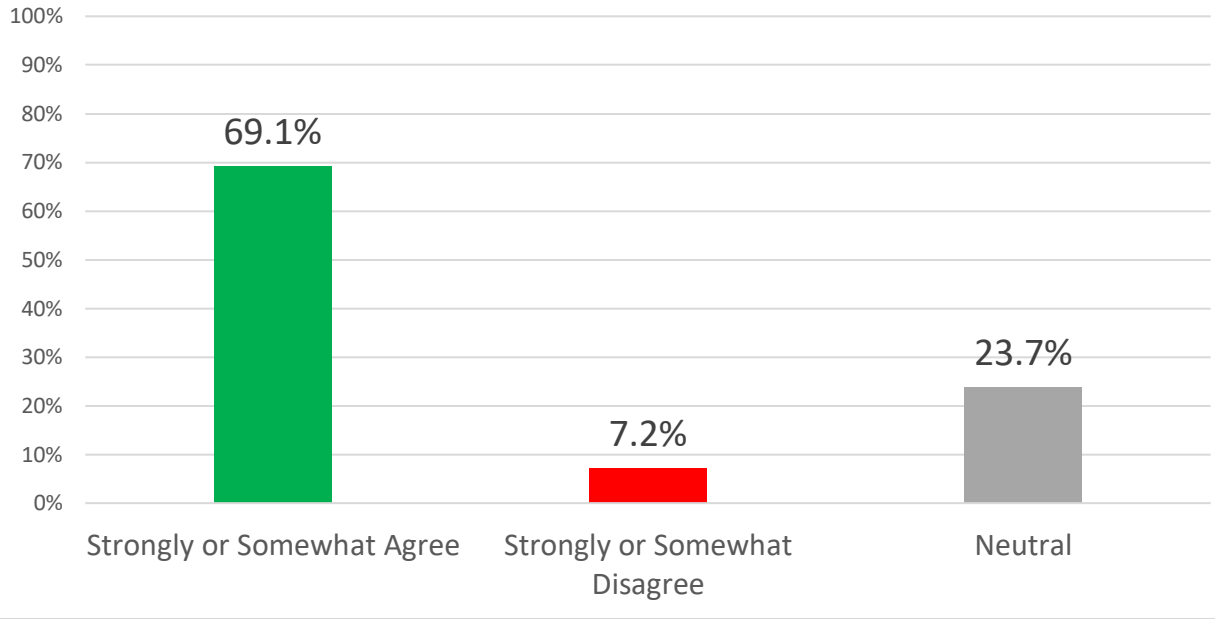


Figure 9. “Instruction moves at a more appropriate pace for my child compared to the previous school.”



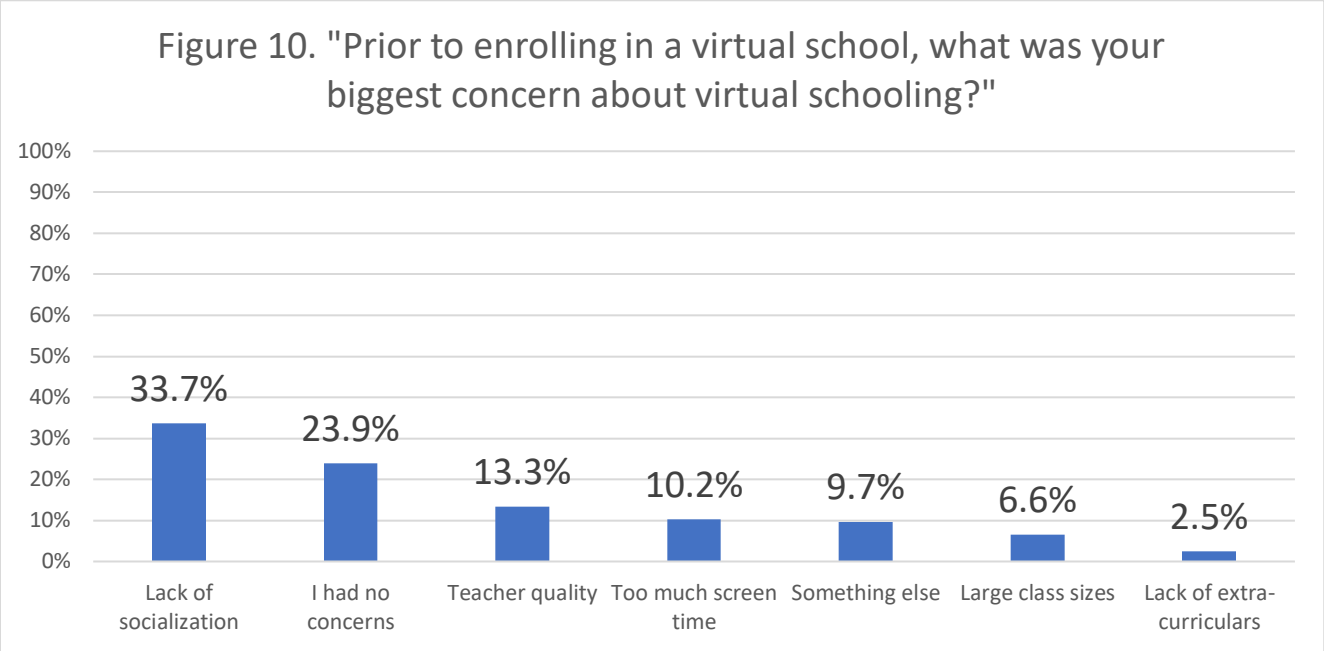


Figure 10. "Prior to enrolling in a virtual school, what was your biggest concern about virtual schooling?"
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
33.7%
23.9%
13.3%
10.2%
9.7%
6.6%
2.5%
Lack of socialization
I had no concerns
Teacher quality
Too much screen time
Something else
Large class sizes
Lack of extra-curriculars

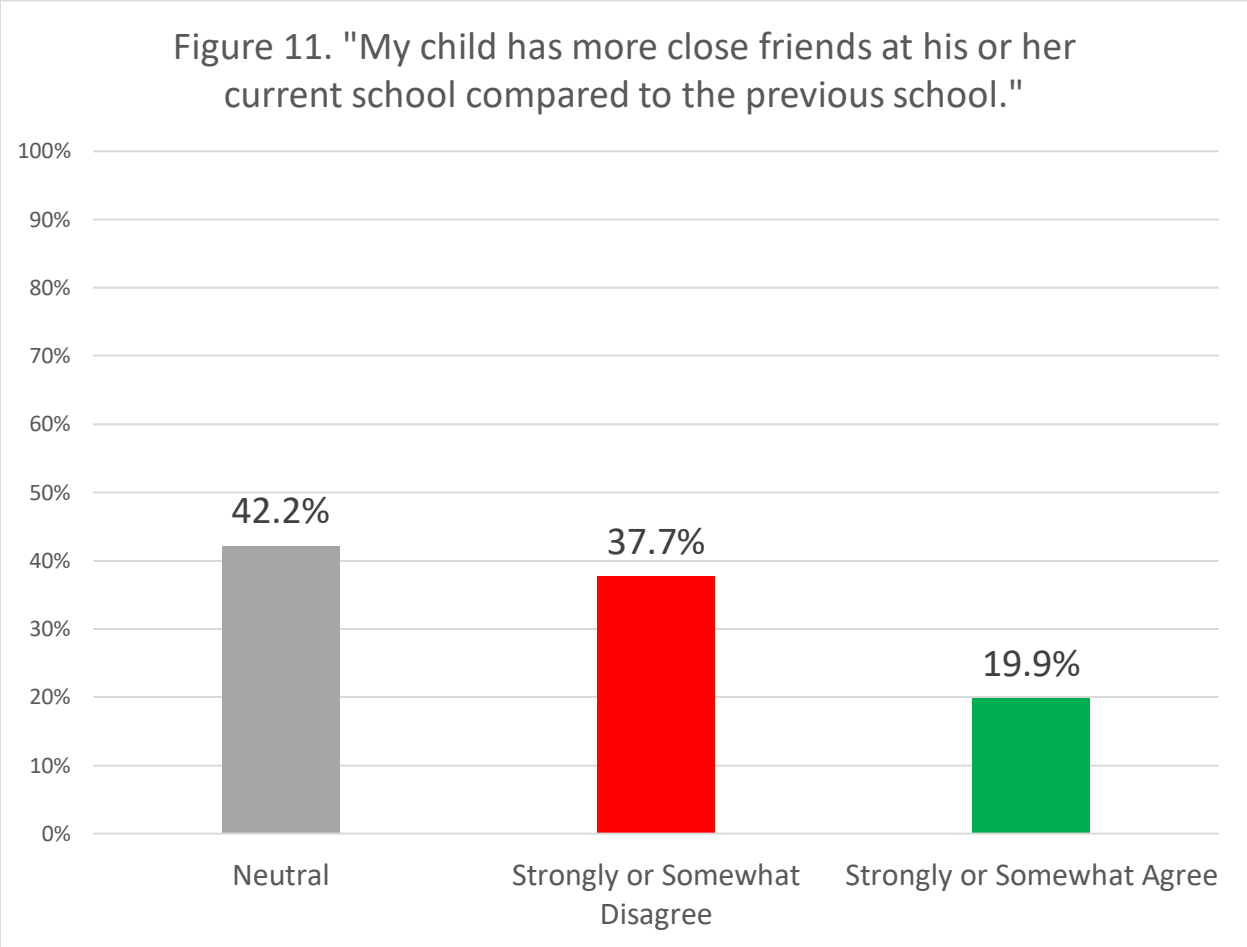


Figure 11. "My child has more close friends at his or her current school compared to the previous school."
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
42.2%
37.7%
19.9%
Neutral
Strongly or Somewhat Disagree
Strongly or Somewhat Agree

Figure 12. “After enrolling in a virtual school, [my biggest] concern went away.”

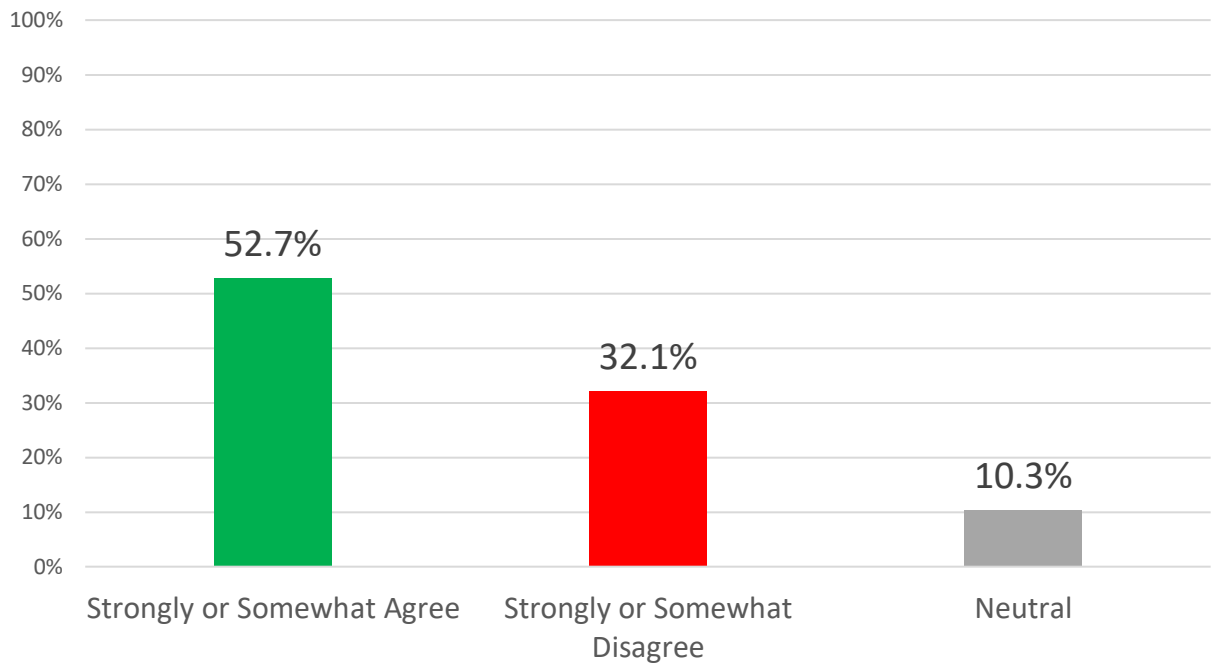


Figure 13. “My current school has a better school culture than the previous school."

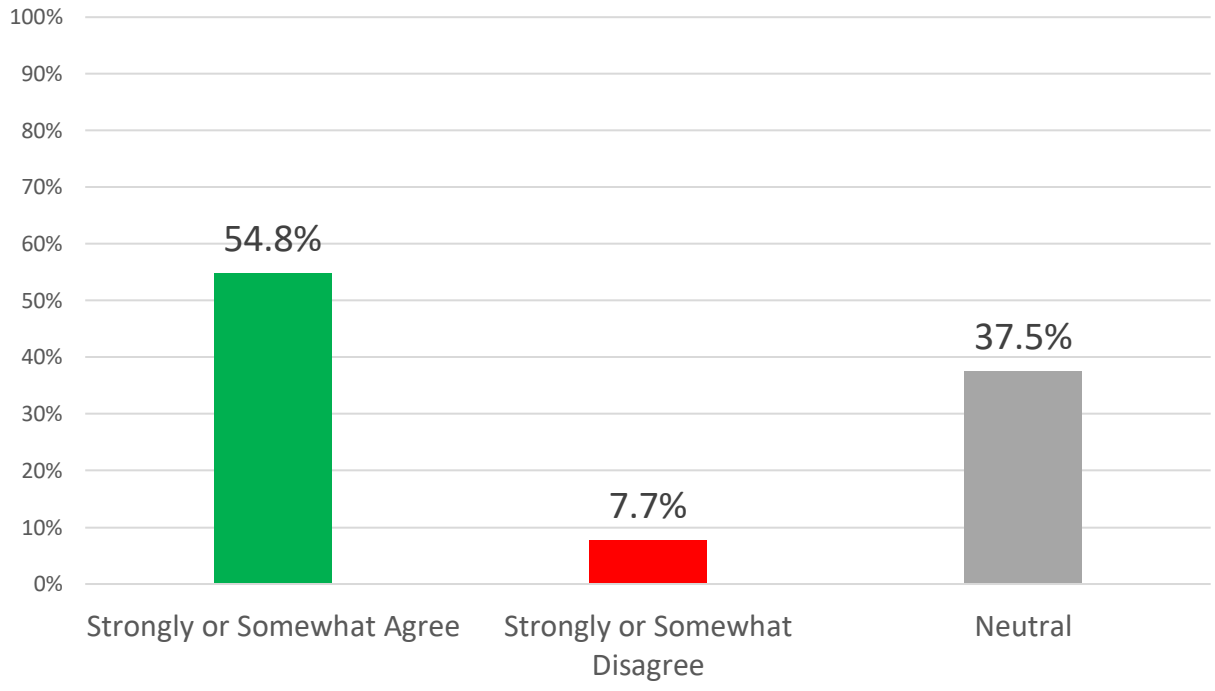
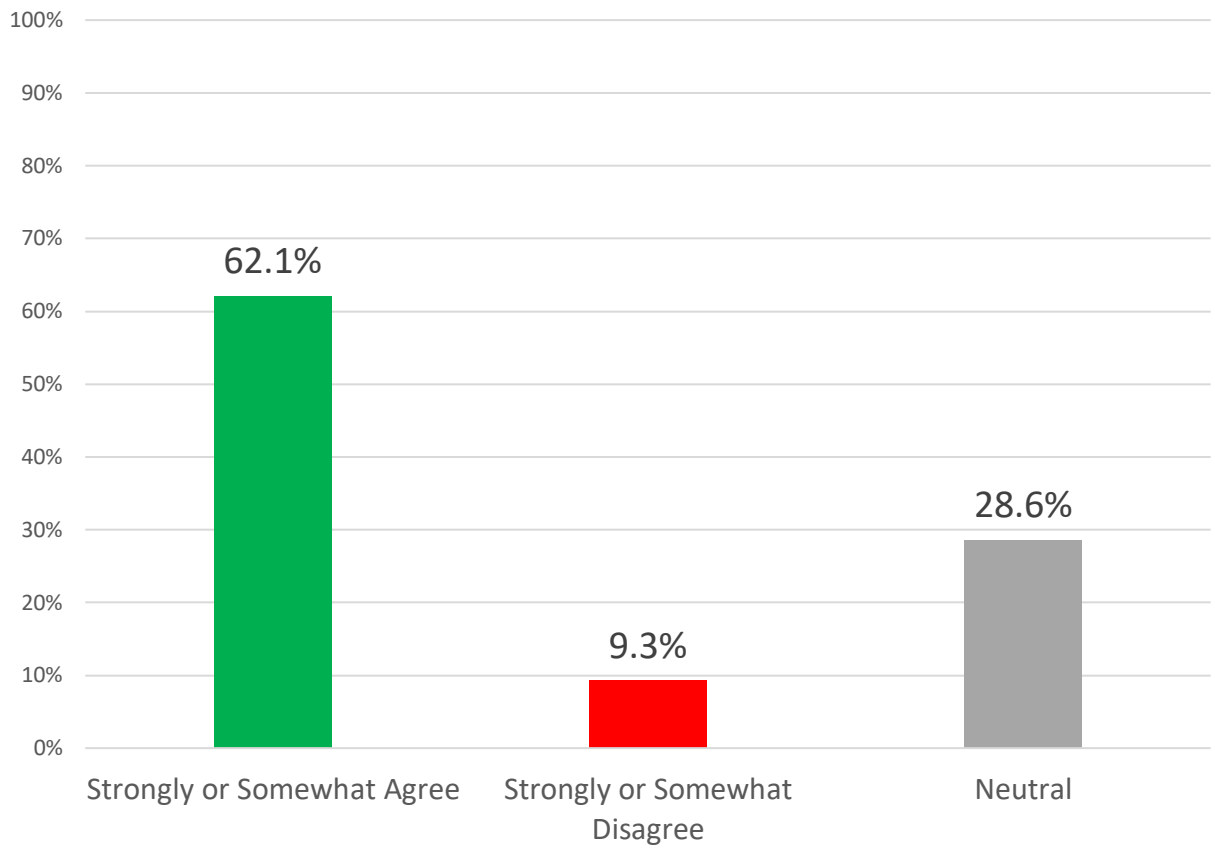


Figure 14. “My child is more excited to start the day compared to the previous school."



Endnotes

[i] It is important to note that these are the directions of the estimated effects regardless of statistical significance. While normally we would only focus on statistically significant results, in a meta-analysis with a larger set of findings the average direction of results is meaningful because the aggregate result would approximate zero if there were truly null effects.

[ii] The following section draws upon an earlier essay found here: https://jaypgreene.com/2017/08/28/credo-is-not-the-gold-standard/